A SURVEY OF CERTAIN THERAPEUTIC SERVICES, THEIR DEVELOPMENT AND INTER-RELATIONSHIP AND THEIR PLACE IN THE SOCIAL FRAMEWORK. EXAMINATION OF THE EFFECT OF THESE FACTORS ON RECRUITMENT, SELECTION AND TRAINING OF PERSONNEL.

B.LITT THESIS
E.M.MACDONALD
ST. ANNE'S COLLEGE.

DH/1/2/1 fol 1a

The Lodge
Harberton Mead
Headington
Oxford

B.LITT THESIS

E.M. MACDONALD

ST. ANNE'S COLLEGE

TITLE

A SURVEY OF CERTAIN THERAPEUTIC SERVICES, THEIR DEVELOPMENT AND INTER-RELATIONSHIP AND THEIR PLACE IN THE SOCIAL FRAMEWORK. EXAMINATION OF THE EFFECT OF THESE FACTORS ON RECRUITMENT, SELECTION AND TRAINING OF PERSONNEL.

PROFESSIONS CHOSEN FOR THE SURVEY

Occupational Therapy
Orthoptics
Physiotherapy
Remedial Gymnastics
Speech Therapy

PREFACE

The passing and implementation of the National Health Service Act, 1946 has focussed public and administrative attention on the various units which go to make up the Health Service, and has, at the same time, brought an increased awareness of the existence of a number of specialised and separate treatment services, absorbed, not unnaturally in adjusting themselves to the new scheme, and in improving, where they can, their service and conditions. In considering the Health Service as a whole there may seem at a first glance, a case for less 'atomisation', for more integration and cohesion, but is this really so, and if so, is it among these professions that it should, in part, occur? This raises further questions.

How have the professions which go to make up the service arrived at their present state? Has there been, in any earlier period, greater co-operation and co-ordination between the particular ones under discussion? If so, what was the cause of their separation? Was it one of chance or of intention, and is it one which should persist? Although these services have distinct, specialised and diversified techniques, have they any points in common? Do they show any elements of inter-relationship or of interdependence? If not, are there reasons for their independence?

In this investigation, five only of the treatment services are dealt with. Those chosen are somewhat allied. They are, among other supplementary medical treatment services, ones in which the therapist deals personally and actively with every patient, in contradistinction to a service in which the therapist does not necessarily appear in person to apply the treatment, e.g. dietetics. There may be others which could claim a place among those chosen, and there are certainly many more which go to make up the Health Service. These others have been excluded to limit the scope of the discussion.

To obtain a clear picture of the evolution of these professions,

and of the differences or links between them, it has been necessary to trace their development from earliest history in some detail. A number of isolated references to these forms of treatment can be found in various medical histories, and in some cases the history of a particular service is available, such as J.B. Coulter's "Physical Therapy",[1] dealing mainly with what is now termed Physiotherapy, F.E. Leonard's "Guide to the History of Physical Education",[2] which includes some reference to Medical Gymnastics, or the "Occupational Therapy Source Book", edited by Sidney Licht[3] and confined almost exclusively to Occupational Therapy in relation to mental illness. It is interesting to note, however, that there appears to be no full, combined record of the history of this or of any group of supplementary medical treatments. This has yet to be written. The following historical notes do not claim to be complete, but they are somewhat full so as to show that these treatment services are, in essence, not new, and that their evolution has been influenced by a number of factors. It will be noted that each form of treatment emerges with a distinct history, and that these histories are based on tried practices of accepted repute. In certain cases some inter-relationship is apparent, and in all there are underlying principles which, while recognised to-day, are found to have been known as far back as the time of the Greeks.

It should be recognised that, by the very nature of the treatment techniques employed in these services and the basic knowledge required for them, their development could only follow that of the "component parts of the intellectual edifice which is medicine".[4] Le Clerc, in his "History of Physick", urges that, "The duty of an Historian obliges

---

1. Chicago 1932.
2. Revised G.B. Afflack. Philadelphia 1947.
3. Baltimore 1948.
4. C.C. Mettler. History of Medicine. Phila. 1947, p.319.

him to be just to others", and adds, somewhat cryptically, "how contrary soever to his own Interest and Inclinations".[1] Justice does indeed require reference to be made to the emergence of these services from the early discoveries in medical and other scientific fields, but they have, in addition, developed distinctive characteristics of their own. It would be contrary to the interests of the services to admit their links with early medical history only if these facts were used by the medical profession as an argument to dominate and control these newer professions.[2] Recent developments seem to suggest this danger, the implications of which will be discussed later.[3]

Anatomy, physiology, psychology and pathology: mathematics, mechanics and electricity are among the particular elements which formed a framework for these treatment services. As these came to follow an accepted scientific pattern, so the treatments were developed. It can of course be argued that massage was used even before anatomy, as such, was known, or that occupation was used to divert the tormented mind from disease and misery before occupational therapy, as such, was thought of. This is true, but, as Dr. Singer so aptly says, in discussing the definition of science, "it is one thing to use or even contrive a device, and another to lay bare its exact principles and to follow them to their theoretical applications and conclusions."[4]

A striking feature of the histories of these services and one which study has revealed to be common to them all is that they show no progressive development until within the last five or six decades. Before this the same techniques appear to have been used again and again. No "therapist" built upon the experience of another and improved upon it. The effect, then, is not that of an account of co-ordinated and expanding services, but rather of a record of similar, but isolated practices in consecutive periods. In postulating new

---

1. D. Le Clerc. History of Physick. Trans. Drake & Baden. London 1699. Introduction to the reader.

2. See p. 91 Fn. 4

3. See pp. 90-93 & Appendix 5.

4. C. Singer. A Short History of Science. Oxford. 1941. p. 66.

schemes for the future it does not seem out of place, however, to explore the precedents which history offers, for without some knowledge of, or reference to, the early development of these techniques and their gradual evolution it is impossible to consider the present position and problems of the services in true perspective or to discuss future plans for them.

Sometimes, in the stress put on the distinctive features of specializations and on highly developed techniques, a disintegration of treatment, which should be co-ordinated, occurs. Specialization undoubtedly makes for expertness and responsibility, (unless it becomes only technical sectionalization), and these qualities must be based on a full professional training and on an appreciation of the aims of a specialised service. The discussion in this thesis is not, therefore, based on any argument against specialization. Its purpose is to analyse in some degree the data collected, to show the effects of their particular forms of development on the services themselves, singly and collectively, and to discover whether or not common links can or should be forged between them at some stage, to counterbalance the separation which seems to come of necessity, and certainly as the result of pressure, in busy rehabilitation units. The answers to this and other queries are the bases of the discussions in this thesis. In Part I an attempt is made to show the degree of acceptance and practice of the therapeutic skills in successive historical periods. In Part II the resulting position of the professions is stated, with a description of the exact service rendered by each. The full significance of the facts elucidated in both sections emerge only in the deductions and proposals made in Part III. This is devoted to the examination of the effect of the findings on recruitment, selection and training of personnel.

Throughout the whole thesis the question seems to recur. Is there a case for maintaining the separation between these services which now exists, or can and should these "therapies", while still preserving their distinctive entities and the high standard of their expertness,

become more closely related? If so, in which direction should co-operation lie? Should it take the form of the often suggested basic general course? Should it be in practice itself? Or should it be developed at the level of closer liaison between professional associations on general professional problems only? If co-operation of some kind is advisable, how best could it be achieved, practically and economically?

This thesis is designed to offer a contribution towards further consideration and planning. The propositions put forward are to that extent tentative, and are bound to be controversial. They are submitted, however, after some experiment and observation, and after much consideration, and are based on a considerable amount of first hand experience, and on discussions with workers in all fields.

Notes

Throughout this thesis the supplementary medical treatment services will be discussed in alphabetical order.

Because, before A.D. 1700, medical books and histories were written mainly in Latin, some references in Part I, have been traced through secondary sources, translations and critical works.

CONTENTS

		PAGE
PREFACE		i
PART I	A SURVEY OF CERTAIN THERAPEUTIC SERVICES, THEIR DEVELOPMENT AND INTER-RELATIONSHIP	
a)	A brief introductory description of each service, with particular reference to early techniques	1
b)	The origin of the elements which form the framework for the therapeutic services	6
c)	The concurrent development of these elements and of the techniques of the treatment services	9
	Period A. The Period of Magic: Before 600 B.C.	9
	Period B. The early scientific application of the treatment techniques:- 600 B.C. to A.D. 200	13
	Period C. The Dark Ages: A.D. 200 - 1250	23
	Period D. The re-awakening in science and culture. A.D. 1250 - 1700	30
d)	The development of the therapeutic services from A.D. 1700 to the present day, showing their emergence as identifiable professions, developing their special skills and their own histories	41
	Period E. A.D. 1700 - 1850	41
	Period F. A.D. 1850 - 1950	55
PART II	THE INTER-RELATIONSHIP OF THE SERVICES, (contd.) AND THEIR PLACE IN THE SOCIAL FRAMEWORK	
a)	Their aims	92
b)	Their differences	95
c)	Their links	100
d)	The exact service each renders	102
e)	The place of the supplementary medical treatment services in the health services	121
f)	The general needs of the services which, if fulfilled, would enable them to function efficiently and would give them a warranted place among welfare services.	134

PAGE

PART III EXAMINATION OF THE EFFECT OF THE FOREGOING FACTORS ON RECRUITMENT, SELECTION AND TRAINING OF PERSONNEL, AND CRITICAL AND CONSTRUCTIVE SUGGESTIONS RELATING THERETO

a) Recapitulation and introductory remarks 150

b) Considerations for the future 153

c) Description of present training methods 156

d) Proposals for a common basic general course 161

e) Professional Training Courses 177

f) An Institute of Training 181

g) A Federation of Supplementary Medical Treatment Services 189

h) Further Considerations 192

1. Recognition of standards, qualification and registration 192

2. Extension of the Services 192

3. Recruitment 198

4. Entry Requirements 199

5. Selection 200

i) Conclusion 202

APPENDICES 1 - 11 204-245

BIBLIOGRAPHY 246

INDEX 262

PART I. A SURVEY OF CERTAIN THERAPEUTIC SERVICES
THEIR DEVELOPMENT AND INTER-RELATIONSHIP

a) A BRIEF DESCRIPTION OF EACH SERVICE, WITH PARTICULAR REFERENCE TO EARLY TECHNIQUES

b) THE ORIGIN OF THE ELEMENTS WHICH FORM THE FRAMEWORK FOR THE THERAPEUTIC SERVICES

c) THE CONCURRENT DEVELOPMENT OF THESE ELEMENTS AND OF THE TECHNIQUES OF THE TREATMENT SERVICES

Period A. The Period of Magic: Before 600 B.C.

Period B. The early scientific application of the treatment techniques: 600 B.C. to A.D. 200.

Period C. The Dark Ages: A.D. 200 - 1250.

Period D. The re-awakening in science and culture. A.D. 1250 - 1700.

d) THE DEVELOPMENT OF THE THERAPEUTIC SERVICES FROM A.D. 1700 TO THE PRESENT DAY, SHOWING THEIR EMERGENCE AS IDENTIFIABLE PROFESSIONS, DEVELOPING THEIR SPECIAL SKILLS AND THEIR OWN HISTORIES.

Period E. A.D. 1700 - 1850.

Period F. A.D. 1850 - 1950.

PART I. A SURVEY OF CERTAIN THERAPEUTIC SERVICES, THEIR DEVELOPMENT AND INTER-RELATIONSHIP

a) A BRIEF DESCRIPTION OF EACH SERVICE, WITH PARTICULAR REFERENCE TO EARLY TECHNIQUES

> "There are Instances of several Methods, widely different from one another, and yet of absolute Necessity in their particular cases, which shews us, that we ought not to be so eager after Courses of Pharmacy in all cases, without distinguishing where other ways are more rational."
>
> F. Fuller
> Medicina Gymnastica.
> London 1740. P.IV.

To be able to follow the histories of the early techniques some description of them, and of the services to which they contribute, is necessary. These techniques appear and re-appear, under a number of different names and in many forms, throughout the centuries, but, as will be noted in the following pages, the essence of them, and the purposes for which they were and are used remained surprisingly the same.

Occupational Therapy

Occupational therapy has been described as "an active method of treatment with a profound psychological justification".[1] It is the term applied to work or recreational activity prescribed for the distinct purpose of contributing to a patient's recovery from disease or injury. It was evolved from the pleasurable or pastime exercise of Greek days, which were originally used to divert and fit for war.[2]

Emphasis on "Therapy"

The term "Occupational Therapy" is often, and quite wrongly, applied to any occupation in which the patient may be engaged.

---

1. D. Stafford Clark. Psychiatry To-day. Pelican, London 1952. p.169.
2. See R. James. A Medicinal Dictionary. London 1743. Vol.II under "Fibra".

It is not denied that this occupation may have a therapeutic effect, but it may have the opposite. It is only true therapy if it is properly prescribed and expertly applied for the definite purpose of treating the specific problem of the individual.

Early links between techniques

The early history of occupational therapy is so closely linked with that of physiotherapy and remedial gymnastics that it is difficult to draw any line of distinction between them. From the study of their combined history, one particular point has emerged. Almost all the early forms of exercise when medically prescribed, had a mental and occupational interest. Exercise was seldom used without the "diverting" element. Ramazzini, a physician of Padua, writing in the eighteenth century, quotes Plato as saying that "we ought not to exercise the Body without the Soul, nor the Soul without the Body".[1] Francis Fuller, writing in the same century, tells how Galen "... has wrote a little tract ... wherein he recommends an exercise by which the Body and Mind are both at the same time affected".[2] This consideration of mental interest has remained the fundamental rule of "occupational therapy", but as mechanical and electrical methods were introduced into treatment there was a tendency for the emphasis in its counterpart, "physiotherapy" particularly, and in remedial gymnastics to a lesser degree, to be changed.[3] The original unity of the three[4] therefore, began to be broken up and the whole "exercise entity" eventually divided. This only happened gradually as will be shown.

The importance of mental interest

Body & Soul Theory

The effect of mechanical and electrical influences

Range of activities used in

Throughout history the occupations recommended for therapeutic use, empirical and generalised as the "prescriptions" were,

---

1. B. Ramazzini. On the diseases of Artificers. (Trans. R.James) London 1750. p.296, and see p.21. fn. 6.

2. F. Fuller. op.cit. p.206 - Referring to Galen's De Parvae Pilae Exercitio.

3. This emphasis is, however, being re-introduced into the treatments of today.

4. Occupational therapy, physiotherapy and remedial gymnastics.

occupational therapy

covered a wide range of activities. They included music, songs, violin playing and dancing; horse-riding, hunting, fishing, swimming, rowing and sailing; sawing and chopping wood, working with a hammer, digging, or following "the plow",[1] ringing church bells, throwing stones or darts, boxing, walking or ambling; sweeping, sewing, weaving and pottery, and, for those who could afford it, travelling.[2]

Orthoptics

Orthoptics an active treatment

This is the recently evolved science of developing straight or correct seeing. It is an active treatment, based on exercises for the eyes, in contra-distinction to the passive ophthalmology of the early days of medicine. History records few cases of this form of treatment, but recommendations made about the eighth century, that masks and exercises should be used to encourage straight sight,[2] suggest the beginnings of the use of present day principles.

Present-day treatment of recent origin

Other recommendations made in the sixteenth and eighteenth centuries[3] suggest further glimmerings of appreciation of the possibilities of orthoptics, but the treatment of today can really only be said to date from the nineteen-twenties.

Physiotherapy

Early physiotherapeutic methods

Physiotherapy is treatment given originally by such physical means as massage, hydrotherapy, and active remedial exercises. With the discovery of the medical potentialities of electricity,

Addition of electricity

electrotherapy and actino-therapy in their various forms were added. From earliest antiquity massage, under the headings of "friction", "unction",[4] or "chafing";[5] hydrotherapy, or the

---

1. R.J. Mitchell and M.D.R. Leys. A History of the English People. London 1950. See p.280 for the "prescription" for Anthony à Wood, of Oxford.
2. See references ~~to Oribasius~~, Paulus Aegineta & Paré. pp. 28 & 35.
3. See references to H. Mercurialis & B. Ramazzini. pp.
4. C.Celsus. On Medicine. (L. Targa's edition) A. Lee. London. 1731. Book II. XIV.
5. E. Strother. An Essay on Sickness & Health. London. 1725. p.288.

"bathing"[1] or "pumping"[2] of history, and exercises, "Military, Athletic or Medicinal",[3] were gradually welded into a scientific treatment.

Remedial Gymnastics

At first involved with other treatments but later separated

Remedial Gymnastics, at first closely linked with occupational therapy, and since then, or for some time, a part of either educational gymnastics or physiotherapy, seem now to be working towards separation from them. Remedial gymnasts may have the qualifications of educational gymnasts, or of physiotherapists, or they may have a separate training in this section only, this latter being a development since World War II, for which certain pre-requisites are necessary.[4]

Final medical application

Gymnastics have, perhaps, the fullest and most varied history. They have their origins in the gymnastic exercises developed by the Greeks or even before them. It was only by degrees, however, that the emphasis was put on the "medicinal" aspect of the exercises. Remedial exercises today conjure up a picture of an individual or class following prescribed and repeated movements to order and rhythm.

Their links with "occupational therapy"

Many of the remedial exercises of ancient history coincided, as has been noted, with what may be termed "occupational exercises" or occupational therapy, and involved the same activities as have been listed under that heading.

Speech Therapy

Emphasis on therapy again

This covers "the treatment of certain defects and disorders of speech".[5] It is distinct from speech training, which is "the perfection of basically normal speech and voice",[6] and from the teaching of the deaf, which is a speciality in itself. Records

---

1. J.W.F. Blundell. The Muscles & their Story from Earliest Times. London 1864. p.86.
2. E. Strother. op.cit. p.326.
3. Herodicus, (or Prodicus) - (c. 450 B.C.) - Le Clerc. op.cit. p.141, and see p.14.
4. See pp.84.85.114.115.
5. Reports of the Committees on Medical Auxiliaries. London 1951. p.112. Section 520.
6. ibid.

of treatment of speech disturbances by surgical experiments on the tongue appear in early history, but the expert treatment indicated by this title is a specialised development of the twentieth century. The speech therapy of today, although possibly including speech training as part of its function for persistent cases, contributes primarily to the treatment and possible cure of certain conditions. Throughout history the use of speech, "vociferating",[1] or reading and speaking aloud, has been recommended for the treatment of certain physical disorders, such as weak stomachs, loss of voice, and even elephantiasis,[2] but these prescriptions do not indicate the true nature and function of what is now known as speech therapy.

Treatment also only a recent development

1. J.W.F. Blundell. op.cit. p.201.

2. ibid. Ref. to recommendations of Aretaeus. p.206.

b) THE ORIGIN OF THE ELEMENTS WHICH FORM THE FRAMEWORK FOR THE THERAPEUTIC SERVICES

"Every one of the threads that make up the web of one's knowledge goes back to distant and diverse origins, and is also tied up with the threads of other textures."

A. Castiglioni
A History of Medicine
London, 1947. (Trans)
pp. 124-125.

It is not easy to isolate or name all the subjects which form the framework for the treatment services, and in any case only part of a subject may be relevant to a particular study or skill. An attempt will be made, however, to touch on the development of the most essential features of them in each period and to follow these through, with references and extracts, showing at the same time how the techniques themselves gradually evolved and became formed into the therapeutic entities which are known today by the titles of the five services under discussion.

Anatomy & Physiology

Anatomy and physiology are basic essentials for the study of all skills and both have long histories. Before the development of Greek science and the all-important practical discipline of dissection, anatomy was speculative. It was dependent on the knowledge of the Egyptian embalmer, or, earlier still, on the experience gained by primitive man in dismembering animals and human sacrifices. The further speculation on function which followed, brought the gradual development of physiology.

Impetus of wars

It is apparent that the impetus given by war to medical progress also had its effect, first on these basic studies and later, quite markedly, on the development of the treatment services themselves.[1]

Pathology & medicine

A knowledge of pathology and medicine have been found to be essential in the training of those who have to apply treatment,

1. See Index.

but the part played by magic in the early theories of disability was inevitably a deterrent to the study of these subjects. Only when wounds were obvious, as those derived in hunting or war, did treatment follow a more rational form and it was from this direct practice that the beginnings of scientific pathology and therapeutics were evolved.

Psychology - The development of psychology was, in its early stages, closely linked with that of philosophy.[1] Psychology, a science based on man's study and interpretation of human behaviour, could only be developed as man's behaviour and experience developed. It was and is subtly dependent on the prevailing thought of the time, as well as on factual discovery. Behaviour can, in certain aspects, be subjected, as can the other more factual sciences, to systematic and formulated tests, although these can never indicate its full significance. As was said by Sir Charles Lovatt Evans in a recent speech,[2] such things as aesthetic feeling, emotions and the attributes of the human spirit are immeasurable.

Mathematics - Early mathematics probably originated with the Egyptians, but it was only after 600 B.C. that these and mechanics emerged as distinct studies which were later to be linked with medical treatment.

Electricity - A form of static electricity was, surprisingly enough, used as treatment for headache and gout, even before electricity itself was discovered. The source was the torpedo or "Cramp Fish", of which Pliny, in his "Natural History" says:-

> "Even at a considerable distance, if it is so much as touched with a spear or rod, the strongest arms become numb, the swiftest feet are paralysed."[3]

The following passages from Scribonius Largus, (47 A.D.) are probably the first recorded cases of electrical treatment:-

---

1. G.S. Brett. A History of Psychology. London 1912. Preface p.vii and Vol.I p.5.
2. Opening Speech. Ergonomics Conference. Oxford 1953.
3. Pliny's Naturall Historie. (Trans. Philemon Holland). London 1601. Book XXXII. Chap.I p.426.

"A headache is immediately and permanently removed if a live black torpedo is placed on the spot where the pain is located, and left until the pain stops and that part is numbed. As soon as this is felt, the remedy should be removed, otherwise all feeling in that part may be destroyed.[1]

"For either sort of gout a live black torpedo should, on the occurrence of an attack of pain, be placed under the feet, while standing on a beach which is not dry but is washed by the sea. This should be continued until the whole foot and the leg as far as the knee feels numb. This removes the pain at the time, and prevents its recurrence."[2]

The elements which form the framework of these particular therapeutics, were, then, distinguishable from an early date and had, in many cases, origins going back further than history can record. They were not fully assembled as bases for medical studies, however, until centuries later, and only in these last six decades have the relevant parts been welded into the structures of the particular services under consideration.

1. Scribonus Largus. Section 11.
2. ibid. Section 169. And see Wilhelm Schonack Die Rezepte des Scribonus Largus. Jena 1913.

c) THE CONCURRENT DEVELOPMENT OF THE ELEMENTS AND OF THE TECHNIQUES OF THE TREATMENT SERVICES

PERIOD A. The Period of Magic - Before 600 B.C.

> "The exact meaning of 'magic' was a matter of much uncertainty even in classical and medieval times ... There can be no doubt, however, that it was then applied not merely to an operative art, but also to a mass of ideas or doctrine and that it represented a way of looking at the world. This side of magic has sometimes been lost sight of in hasty or assumed modern definitions ... In the case of primitive man and savages it is possible that little thought accompanied their actions. But until these acts are based upon or related to some imaginative, purposive and rational thinking, the doings of men cannot be distinguished as either religious or scientific or magical. Beavers build dams, birds build nests, ants excavate, but they have no magic, just as they have no science or religion."
>
> Lynn Thorndike
> A History of Magic and Experimental Science. N. York. 1929.
> Vol.I. p.4.

There are references which show that the techniques used in occupational therapy, physiotherapy and remedial gymnastics were employed before the fifth century B.C. E.T. Withington[1] suggests that one method of dispelling the "intruding spirits" causing disease was the use of rubbing, a fore-runner of the more scientific massage. Stern speaks of massage used for constipation[2] and Mettler quotes a vivid account of magical ritual in a prescription for a gastric complaint, ending thus:-

> "place his head downwards and his feet up, strike his cheek forcibly, rub him violently and say to his stomach 'Be Good'."[3] [4]

Stern speaks, too, of the use of steam baths for maintaining good physical condition, and this, coupled with the knowledge of

---

1. E.T. Withington. Medical History from Earliest Times. London 1894. p.11.
2. B.J. Stern. Society and Medical Progress. Oxford 1941. p.3.
3. C.C. Mettler. op.cit. p.320. Ref. Lancet. 2.1137. 1913. The Medicine of the Babylonians & Assyrians.
4. Massage had been used medically in China since c.3,000 - and in Japan and India.

the prevalence of arthritis[1] among the Egyptians, for which there were prescriptions "to make the joints limber",[2] suggests systematic rather than random practice. Although certain early stories may perhaps claim little authenticity, it does not seem inappropriate to mention a few of the legends here, for in them lay, perhaps, some of the inspiration for later practice.[3]

Chiron the Centaur, reputed to have been accomplished in Medicine, Astronomy, Music, Hunting and other Arts,[4] had among his pupils Aesculapius, the son of Apollo, to whom he is said to have taught "the arts of healing and hunting".[5] Aesculapius founded treatment temples, built near healing springs, where, according to Castiglioni, "gymnastic exercises, baths and inunctions"[6] were given, and is said to have treated delirium "with songs, farces and music".[7] Orpheus, another of Chiron's pupils, so legends relate, also used music "as a curative agent".[8]

Exercises baths & massage in Aesculapian Temples

Music as therapy

Melampus, (c.1400 B.C.), supposedly a contemporary of the legendary Aesculapius, is credited with having cured the daughters

---

1. F.H. Garrison, History of Medicine. London 1929. p.55. 'arthritis deformans' is specified as 'hardening in the limbs'.
2. ibid. p.55. and see C.P. Bryan. The Papyrus Ebers (Trans. from the German). London 1930. p.64. "To make everything possible supple".
3. "Most fables of this kind are founded on true history." D. Le Clerc. op.cit. p.6.
4. ibid. pp.31,32 and Pindar. Odes - Pythian III & Nemean III. London 1915. (Loeb Trans.).
5. Apollodorus. (Trans. J.G. Frazer) (Loeb Trans.) London 1921. Book III x. 3. pp.16-17 and Pindar. op.cit. Pythian III. p.185.
6. A. Castiglioni. op.cit. p.124.
7. D. Le Clerc. op.cit. p.41. And Galen. De Sanitate Tuenda. R.M. Green's Trans. Illinois 1951 - "Every year we treat not a few patients for ailments of the mind, by correcting the disorder of its activities. No mean witness of this opinion is our ancestral divinity Asclepios, who caused not a few odes to be written and humerous mimes and songs to be composed by those in whom the excessive activity of passion made the constitution of the body hotter than normal." Book I. Ch. 8. p.27.
8. K. Ligeros. How Ancient Healing Governs Modern Therapeutics. London 1877. p.167. And Diodorus Seculus. (Loeb Trans.) London 1935. Vol.II. p.425 and Vol.III. p.271.

First medicinal use of bathing

of Proetus, King of Argos,[1] of madness by purifying them with Hellebore and bathing them "in a certain cold Fountain" - "Here", says Dr. James, in the Historical Introduction to his 'Medicinal Dictionary', published in 1743, "we have the first instances of Purging and bathing with a medicinal view".[2]

Again, according to Dr. James, Medea, the daughter of Oetus and Hecate, and sister of Circe, was the "first who made use of warm Baths"[3] but, he relates that in some cases she is said to have boiled her patients alive, which suggests that the treatment was anything but scientific.

Homer & combined use of techniques

Homer speaks of crafts, gymnastics, games, exercises, "for they divert the mind from its sufferings and sorrows and keep the body and mind in proper condition and mood."[4] In "The Iliad"[5] he tells of the "noble craftsman-god" Hephaistos, whose status, at one time, rose nearly to that of Zeus himself. In and after the fourth century B.C. his cult diminished, however, as the work and art of potters, of workers in gold, silver and bronze, of sculptors and other skilled craftsmen gradually lost social prestige. Hephaistos was lame, and, having been disowned by his mother on this account, was saved by Thetis and Eurynome, being given by them opportunity and equipment for forging "much cunning handiwork". This, surely, is one of the earliest stories of what would be termed today one of the best forms of rehabilitation. It is interesting to note, too, that at this time it was customary to encourage blind men to become minstrels, and lame men smiths,[6] the latter, presumably, in imitation of their artisan-god.

---

1. "Melampus ... being a seer" was "the first to devise the cure by means of drugs and purifications." Apollodorus. Book II. II. 2. p.149.
2. Dr. James. Introduction to Medicinal Dictionary. p.4.
3. ibid. p.5.
4. K. Ligeros. op.cit. p.193 and Homer - The Iliad. Books XVIII and XXIII.
5. Homer. The Iliad. Book XVIII.
6. See Charles Seltman. The Twelve Olympians. (Pan Books) London 1952. Chapter VII. And R.Groves. The Greek Myths. (Penguin Book) London 1953. Vol.I. pp.86-7.

To the practice of orthoptics or speech therapy, or of any techniques suggesting the use of them at this time, no direct reference has been found. According to Le Clerc, however, Hygienus quotes Apollo as having been the "first Occulist".[1]

In the following translated extract from the tablets found in Epidaurus some indications of treatment techniques in this period are given, and, although prescriptions for patients to-day are certainly not as "precipitous", one can detect underlying considerations in common with certain present techniques.

	Case No.	Type	Diagnosis	Treatment
Massage	2	Obstetric	Difficult child delivery or painful confinement	Methodical Massage
	5	Neurologic	Aphasia	Abrupt psychological impression
	9	----------	No disease	Phantastic Therapy
Massage	13	Urological or Urogenic	Stone in Urethra	Elimination by friction
	15	----------	Pretended lameness	Precipitous cure
Orthoptics	17	Ophthalmologic	Blepharoptosis (drooping eyelids)	Systematic opening of eyes
Exercise & Massage	28	Neurologic	Headache or Wakefulness	Gymnastic exercise and massage. Use of narcotics
Baths	36	Pathologic	General Rheumatism	Special bath treatment
	37	Neurologic	Paraplegia of lower extremities	Abrupt fright $\frac{1}{2}$ instantaneous cure[2]

Dr. Ligeros goes on to say that "drugs formed the smallest percentage of treatment" at this time, and that much of it was "natural therapy".[3] That this "natural therapy" has persisted in the face of a host of pharmaceutical and other scientific medical

---

1. Le Clerc. op.cit. p.25.
2. K. Ligeros. op.cit. pp.266, 269. Quoting "Asclepiod and Asclepiae" by Dr. Araventinos. Inscription on tablets found by P. Kavvadias. (Athens). Late Asst. Prof. of Archaeology. Excavator of the Aesculapium of Epidaurus. 1883.
3. ibid. pp.266-9.

discoveries suggests, with reason, that it has still a place in the medical treatment of to-day.

PERIOD B. The Early scientific application of the treatment techniques - 600 B.C. to A.D. 200

"No single key unlocks all the doors in Science or in History, or in the human heart, which counts so much in History. But certain things may be traced in ancient, medieval and modern history. Ideas are again and again the real forces, and they have strange adventures among men."

T.R. Glover
The Ancient World.
Pelican Books
London 1948. pp.333-4.

The influence of the scientific approach

From the fifth century B.C., when mythology and magic gave way to "the spirit of exact enquiry"[1] of which Pythagoras was one of the first exponents, it is perhaps possible to trace the earliest factual and scientific development of the treatment services. Pythagoras recommended a careful diet, and gymnastics for promoting health,[2] and is said, like Orpheus, to have advised music as treatment for depression. This suggests a considered, rather than a chance, use of music therapeutically and is further supported by the fact that Thales, a statesman, law-giver, poet and physician and also a Pythagorean is said to have "mixed music and song"[3] with gymnastics. So, too, according to some records, did Herodicus or Prodicus, described by Le Clerc[4] as brother of Gorgias, the rhetorician and said by some to have been a physician,

---

1. G.S. Brett. op.cit. Vol.I. p.23.
2. Diog: Laert - (Trans. R.D. Hicks). London 1925. Vol.II Book VIII. p.331.
3. K. Ligeros. op.cit. p.282.
   It is also interesting to note that Thales discovered a form of electricity, in that "amber, when rubbed, attracted light bodies". Dr. Golding Bird. Lectures on Elec: & Galvanism. London.1849. See p.47.
4. Le Clerc. p.140.

by others, a schoolmaster or wrestling master. He is supposed to have cured himself of hypochondria by exercises,[1] and the invention of "Gymnastic Medicine", as distinct from Gymnastic "Exercises",[2] is ascribed by some to him. Others strongly refute this, however, among them writers in the Hippocratic Collection,[3] who ridiculed his judgment and prescriptions. If the stories of him can claim any truth it would seem that he did, however, make careful study of diseases and recommended "particular kinds of exercises for each".[4]

The invention of "Gymnastic Medicine" and the therapeutic application of exercises

Hippocrates may not have practised dissection, but many of the anatomical references in his works, which were surprisingly accurate, gave a sound basis for prescriptions for active treatments, akin to the remedial gymnastics, physio- and occupational therapies of to-day. The same cannot be said, however, of his theories of physiology, based on the digestion, but there is no doubt that Hippocrates' approach to medicine had a sound psychological basis. He considered the whole person as an individual in a particular social setting.

Hippocrates' use of therapeutic techniques

Pscholo-gical and physical consider-ation again

References to the employment of the techniques now used in the supplementary medical treatment services in the time of Hippocrates, are extensive. Many, authentic and otherwise, were later quoted by seventeenth and eighteenth century enthusiasts, eager to resurrect and develop these forms of treatment, and if, by the findings of recent scholars, they cannot all claim to be the recommendations of Hippocrates himself, they would still seem to indicate prescription and practice of these therapeutic techniques during this period.

Francis Fuller mentions Hippocrates' recommendations for

---

1. Plato. De Republica. (Trans. B. Jowett) Ox. 1938. Book III. p.93.
2. R. James. op.cit. Vol.I. p.X.
3. It is well known that many of the works in the Hippocratic Collection are not of Hipprocrates' authorship.
4. Sir John Sinclair. Code of Health & Longevity. London 1816. p.236.

"friction" or "chafing",[1] and Edward Strother notes that "Hippocrates mentions Friction".[2] Robert James quotes from another passage in his writings:-[3]

> "Strong Friction contracts, gentle Friction resolves, much Friction diminishes and moderate Friction condenses ... Nothing is more beneficent in curing a weakness in the Fibres than Friction with rough, warm woolen cloths."

It is obvious, then, that Massage was firmly established among the remedies of the Hippocratic times. The use of baths,[4] too, with friction and exercise is also recommended for the preservation of Health, and heat - one of the first references to its medical use - was advised for softening the skin, lessening pain and for the treatment of other conditions.

Heat as treatment

Among the Hippocratic writings, "De Dieta" - (c. 400 B.C.) is said to give the fullest account of exercises used as treatment. Hippocrates, it is also said, suggested exercises with "the hanging ball or by wrestling",[5] and, according to Fuller favoured a kind of "drill", described by him as "a sort of dexterous and regular Motion of the Hands and upper Parts of the Body, sometimes after the Military manner". In addition and for certain cases, he appears to have advised "Equi Indefiniti", "by which", says Fuller, "I suppose he means Galloping long Courses in the Open Field."[6] R. James adds

Riding recommended as exercise

---

1. F. Fuller. op.cit. p.204 - and De Dieta. (Trans. J. Precope) London 1952.
2. E. Strother. An Essay on Sickness & Health. London 1725. p.288.
3. R. James. op.cit. Vol.II. Under "Fibra" - This tallies with that of Galen. De Sanitate Tuenda. (Trans. R. Green). Illinois. 1951. p.58, quoting Hippocrates:-
   "Rubbing has the effect of relaxing, constricting, thickening and thinning; hard rubbing constricts, soft relaxes, much rubbing thins and moderate thickens."
4. Hippocrates. On Regimen in Acute Diseases - (Trans. W.H.S. Jones. Leob Ed.) London 1923.
   "It is beneficial to employ hot baths" LXVI. p.363.
   (Trans. E. Kelly - Med. Classics. Vol.3. No.1.)
   and "The bath is useful in many diseases" pp.79-80.
5. Referring, presumably to Hippocrates' On Regimen - (See Trans. W.H.S. Jones. Loeb Ed. LXXXI. p.411).
6. F. Fuller. op.cit. p.204.

that, "according to the extraordinary sagacity of Hippocrates", exercises were contra-indicated in acute conditions.[1]

In the Hipprocratic writings work is said to have been prescribed as treatment. For dropsy Fuller says that Hippocrates frequently recommended the use of Exercises, and Hippocrates is also quoted by Strother, as saying that "Labour is good for the Joints and Flesh ... By Labour is meant Strong Exercise or Exercise turned into a business.[2]

And yet, with all this evidence, and more that could be produced of careful prescription, and interest in the active treatments, it is surprising to read Coulter's comment written in 1932:-

Still no actual prescription for the use of the techniques

"Although Hippocrates tried to give reasons for all his exercises and was not content with empiricism, there was no real therapeutic exercise, as we know it, in Ancient Greece."[3] This bears out the comment of W.F. Blundell, writing in 1864, who says:- "Notwithstanding the abundant references to these practices which are to be found among both Greek and Latin authors, we have no treatise or system of exercises handed down to us."[4] But the practices continued to be accepted as useful, and even as necessary adjuncts to treatment, and, in spite of lack of system and progress, they persisted.

No direct reference to speech therapy or orthoptic methods

No reference has been found to Hippocrates' attitude to the treatment of speech defects, or to treatment of abnormal eye conditions by exercise, although nystagmus and strabismus, (the latter a condition primarily treated by orthoptics to-day) are said to have been described in the Hippocratic writings. Reference is also made to the effect of war on medicine, in the following terms:-

---

1. R. James. op.cit. Vol.III. p.XX.
2. E. Strother. op.cit. p.341. Referring to On Epedemics, Bk.6. (The origin of this work has, however, recently been questioned).
3. J. Coulter. op.cit. p.8.
4. W.F. Blundell. op.cit. p.35.

Impetus of war again

"War is the only proper school for the Surgeon."[1] History has so truly endorsed this statement.

Plato inveighs against exercise

Plato's outlook on exercise was reflected in a warning to his readers. He inveighed against the self-absorption which might occur from "practising a sort of continual Physick",[2] thus preventing a man from making his contribution to the "Publick Good". His views are echoed in the somewhat surprising comments of Erasistratus, the

Exercises a last resort

Alexandrian physiologist, on exercise. He considered that exercises were good for the sick and not for the healthy, and that they offered a possible remedy only when all else had failed, - this latter an opinion not unknown to-day.

Throughout this time dissection was still kept going by occasional experiment and demonstration, in spite of the fact that it was forbidden, and material was difficult to obtain. Herophilus, the anatomist, contemporary and co-worker of Erasistratus, taught

Public dissection

and dissected publicly and was, according to Pliny, the first to seek the causes of diseases.[3] This was a marked step forward and undoubtedly had its effect on later treatment.[4]

Aristotle's contribution

Aristotle's contribution to the scientific aspects of medical treatment, particularly in comparative anatomy influenced, although indirectly, the development of the services under discussion.

Mathematics and gymnastics

Eudoxus, the Cnidian astronomer, geometer, physician and legislator - or a contemporary physician of the same name - advised people to be always exercising their limbs by every form of gymnastics, and their sense organs in the same way.[5] Researches are said to have been made, by one or the other, into the fields

---

1. F.H. Garrison. op.cit. p.108.
2. Le Clerc. op.cit. p.144 and Plato's Republic. (Trans.F.M. Cornford) Oxford 1941 - "No one has leisure to spend all his life in being ill and doctoring himself." Ch. IX. p.94.
3. Pliny's Naturall Historie. (Trans. P. Holland) - Book XXVI. Cap. III. p.243.
4. See p. 57.
5. Diog: Läertes. (Trans. R.D. Hicks) London 1925. Vol.II. Book VII. pp.401-5.

of acoustics and applied mechanics, and yet, for lack of a scientific anatomical background, these explorations brought no useful exposition of the theory of movement or of applied exercise.

Mathematics and optics

Euclid's claim to notice here is in connection with his treatise on the mathematics of optics, which formed the basis of Hero's later work (100 B.C.). With Archimedes, Euclid also made a vital contribution to the mathematics of movement, Archimedes having been the first to postulate the principles of leverage and their application to the human body.

Mathematics, leverage & human movement

Asclepiades' use of gymnastics

Asclepiades of Bithynia, the Epicurean physician, who founded a medical school in Rome, is reputed to have banished internal remedies, making, instead, extensive use of gymnastics and dietetics. He is credited by Garrison[1] with being a pioneer in the humane treatment of the mentally ill, and by Mettler[2] with having introduced psychotherapy into medicine. He recommended massage to quieten mental cases, occupational therapy, (although not called this), for "promoting memory and fixing attention; music and wine to promote sleep". He was the inventor of the famous lecti pensiles, or hanging beds, but is said also to have favoured active exercise and the recently invented shower bath.[3]

Asclepiades - a pioneer in treatment of mental illness

At or before the time of the late Alexandrians, Aurelius Cornelius Celsus, (14 B.C. - A.D. 37), "A private gentleman of noble family"[4] in Rome, became interested in medicine. Although supposed not to have been a physician, and in spite of the fact that dissection was forbidden under Roman régime, his contributions

---

1. F. Garrison. op.cit. p.106.

2. C.C. Mettler. op.cit. p.335.

3. E.T. Withington. op.cit. p.84 - and Pliny. Nat.His. (Trans. P. Holland) -
"He had ... other pretie devices to flatter and please his Patients, one while causing them to have hanging litters or beds like cradles, by the moving and rocking thereof too and fro, hee might either bring them asleep, or ease the pain of their sickness, otherwhiles ordaining the use of bains". "Asclepiades ... took pleasure to be called the Cold Water Physician".
Book XXVI. Chap.III p.243.

4. F. Garrison. op.cit. p.107.

C. Celsus & anatomy & physiology

to anatomy and to medicine were important[1] not least in his references to the use of the ancillary therapeutic techniques. He was the author or editor, or as some believe, perhaps only the translator, of the first medical book in Latin. This contains a systematic "discussion of diseases from head to foot",[2] recommending "sensible and humane treatments for them",[3] among which were friction, exercises, rocking, bathing, swimming and suitable occupations. Of friction he said:- "it is never to be practised in the increase of a fever",[4] and made the safe but not very explicit pronouncement:-

His use of the therapeutic techniques

> "by strenuous rubbing you harden the body; rub gently and you make it soft; much rubbing reduces flesh; when moderate it increases weight."[5]

He recommended "clara lectis" or reading aloud, for the weak stomach, and favoured a mixture of what may be termed "occupational exercise" for maintaining health, e.g. sailing, hunting, reading aloud, handling of arms, ball games, running and walking. He also prescribed cold and warm baths, particularly for cases of hydrophobia.

C. Celsus & treatment for mental illness

In his third book Celsus speaks "of several kinds of madness and their cures".[6] Some of his prescriptions show a kindly enlightenment; others are distressing for their harshness and lack of perception. In speaking of acute conditions he suggests the application of occupations "suitable to the temper of each", and continues:-

Indirect application of

> "the sorrowful thoughts of others must be dispelled, for which purpose concerts of music and symbals and noise are useful ... Yet these patients must be

---

1. He is believed to have been the first to give anatomy its Latinised nomenclature. C. Singer. A Short History of Science. p.107.
2. C.C. Mettler. op.cit. p.341.
3. C. Singer. A Short History of Science. p.107.
4. C. Celsus. 'Of Medicine'. Trans. Grieve. Revised by Futvoye. London. 1837. Bk.I. p.77.
5. ibid. p.77.
6. ibid. Bk.III. Ch.XVIII. p.128.

occupational therapy

> oftener humoured than contradicted and the mind is to be led by slow degrees, and not evidently, from their irrational assertions to better notions. Sometimes also the attention of the person must be strongly engaged; a method taken with studious men to whom a book is read, either with propriety of accent, if they be pleased with it, or with an improper tone of voice, if that offends them, for by correcting they begin to give their attention."[1]

Here is much of the good sense and indirect treatment, seldom talked of or widely written about, which underlies the present-day application of occupational therapy. It is of particular interest, too, to note that Celsus recommended the combined use of supplementary medical treatments.[2] Almost all the mental hospitals of today have some form of occupation or occupational therapy, but not all have physiotherapy, remedial gymnastics and speech therapy, although the patients need them as much as they did in the time of Celsus.

Celsus recommends combined use of treatments

Aretaeus and instinctive use of massage

Aretaeus of Cappadocia, a physician of distinction, of the 2nd and 3rd centuries A.D., is said to have recommended "Gentle rubbing of the feet with oil, patting the head and particularly stroking of the temples and ears", for cases of phrenitis, "for", he added, "by stroking their ears and temples wild beasts are overcome so as to cease from their anger and fury",[3] an instance of the persistence of the instinctive use of massage.

Speech therapy

One of the clearest references to actual speech therapy in this period is Plutarch's account of the exercises used by Demosthenes to improve his diction and his voice.[4]

The last name of importance in this era is that of Galen, the

---

1. C.Celsus. op.cit. (Grieve's Trans.). Book III. pp.131-33.
2. ibid. p.133.
3. C.C. Mettler. op.cit. p.508.
4. ..."The indistinctness and lisping in his speech he used to correct and drive away by taking pebbles in his mouth and then reciting speeches. His voice he used to exercise by discoursing while running or going up steep places at a single breath. Moreover, he had in his house a large looking-glass, and in front of this he used to stand and go through his exercises in declamation."
   Plutarch's Lives. (Loeb. Trans.). London 1919. Vol.VII. p.27.

man of medicine and philosophy, whose works the scholars of the Renaissance were to revive, and correct or discard in the light of later experiment and experience. Galen approved of massage, of which he gives a full account, and a technical description:-

Galen's use of the therapeutic techniques

> "The rubbing should be of many sorts with strokes and circuits of the hands, carrying them not only from above down, and from below up, but also subvertically, obliquely, transversely; subvertically, inclining a little to either side of vertically and obliquely, midway between vertically and transversely*."
>
> (* i.e. like the points in boxing a compass)[1]

He describes cases for whom massage is suitable, and commends its advantages, but notes its dangers. He also recommends the use of baths in all forms, and of all temperatures.[2] He advocates different types of exercise, among them "gestation",[3] (a term used by many writers to denote swinging) riding, swimming and hunting. He calls these "extrinsic motions".[4] He discusses the varieties of exercises in detail, describing some as "exercise alone, and some not only exercise but also work".[5] Like Plato, he particularly notes that body and mind are interdependent,[6] and he postulates that

---

1. Galen. De Sanitate Tuenda. (Trans. R.M. Green). pp.57 & 110.
2. ibid.
3. F. Fuller. op.cit. pp.206-7.
4. Galen. op.cit. p.89.
5. In a list of this "exercise" which is "also work" Galen gives examples of what would now be termed "Occupational Therapy". He says:-
   "Exercise and work are digging, rowing, ploughing, pruning, burden bearing, reaping, riding, fighting, walking, hunting, fishing and whatever other things men practice for a living either as artisans or as unskilled laborers, either house-building or bronze working or ship-building or plough making or manufacturing any other such instrument of peace or war. And most of these it is possible to employ as an exercise alone. For altogether there is a threefold use of them; for the same thing is sometimes undertaken as work alone, sometimes for practice in the use of works that are going to be done, and sometimes as exercise."
   ibid. p.79.
   Note the practical application of, and the emphasis on, realistic use of genuine trade or vocational occupations.
6. Plato - "Simmias speaks:- 'If, then, the soul is a kind of harmony it is clear that if our body becomes subject through disease or other troubles to excessive relaxation or tension, then the soul ... is at once destroyed, just like other harmonies'."
   (From Phaedo - Chap.XXXVI)

(contd. on next page)

Body and mind theory again

"all the faculties are ... increased and strengthened by exercise and impaired by disuse".[1] He is said to have been emphatic about the importance of the element of volition[2] in remedial exercise or occupation, a fact which, through absorption in mechanization and passive treatment, tended to be lost sight of in the medicine of the later middle ages, but which has been revived, it is satisfactory to note, in the last several decades.

The importance of volition

Galen & opthalmology

As in other cases, it does not seem possible to find any reference in Galen's writings to the subject of eye exercises but among his prolific works are some on opthalmic diseases, and an account of the paths of the optic nerves. He showed considerable interest in speech,[3] however, and demonstrated, through his experiments on pigs, in which he produced aphonia, the function of the recurrent laryngeal nerve, discovering thereby the origin of the voice.[4] He was interested, too, in the art of using the voice, and Blundell tells that:-

His interest in speech mechanism

> "he narrates how the teachers of elocution in his time, the harpers, the criers, also the performers of tragedy and comedy, who used their voices much when they injured them, were accustomed to resort to much bathing, together with light and wholesome food."[5]

Bathing as speech therapy

From the evidence given in the preceding pages it must now be clear that the techniques of the services under consideration had become recognised as treatment agents. A belief in their efficacy

---

Galen - "The doctrine that the mental powers are consequent upon the bodily temperaments I have always found to be true.
(From Teubner's Greek Text - Galen's 'Scripta Minerva')

Both quoted by A.J. Brock in Greek Medicine - London 1929. pp.103 & 232.

1. A.J. Brock. op.cit. p.189.
2. Ludwig H. Joseph. "Gymnastics from the Middle Ages to the 18th Century. Ciba Symposia. New Jersey 1949. Vol.10. N.35. p.1030. & A.J. Brock. op.cit. p.92.
3. A.J. Brock. op.cit. p.87 quoting Galen:? "Deep breathing is the specific exercise of the thorax and lungs; so is phonation and the use of all phonetic organs. The catalogue of these has been stated in my writings 'on the voice'."
4. C.C. Mettler. op.cit. p.25.
5. J.W.F. Blundell. op.cit. pp.201-2.

The various therapeutic techniques still persist

appears to have persisted in the minds of the most eminent physicians and thinkers of the period, and this fact suggests with some reason that they had a value which was worth perpetuating. Yet the application of them still remained, for hundreds of years, unsystematised and unscientific.

With the death of Galen the progress shown in this period ended. The vitality which had given rise to the enterprise and experiment of these centuries gradually dwindled. Revival only came slowly and with the general re-awakening after the thirteenth century.

PERIOD C. The Dark Ages - A.D. 200 - 1250

> "A flood of barbarism submerged all the new acquisitions of civilization, leaving only its ancient East Mediterranean core as an impoverished relic - the Byzantine Empire" ... but ... "Most achievements that had proved themselves biologically to be progressive and that had been firmly established on a genuinely popular footing were conserved, even if temporarily fossilized ... Most crafts were still plied ... Farms were still worked ... Barter did not entirely oust money economy ... Writing was not forgotten ... Greek medicine was practised in public hospitals with the blessings of the Church."
>
> Gordon Childe
> What Happened in History.
> Pelican Books
> London 1946. pp.249-50.

Conditions static

The Dark Ages contributed little to the history of the treatment services. Medical progress in this period provided only a few stepping stones towards their establishment in the next and succeeding periods, but lack of facilities, coupled with the dearth of original work, prevented any marked progress for over a thousand years. Dr. Singer comments:-

> "Monkish medicine had no thought save for the immediate relief of the patient; medicine remained surrounded by sacred associations but the scientific stream, which is its life blood, was dried up at its source."[1]

---

1. C. Singer. A Short History of Medicine. Oxford 1944. p.62.

A few original works which had survived the fall of Rome and subsequent invasions and emigrations became mutilated by translation and re-translation, and as the transcription of them was carried out by writers with no expert knowledge of their subjects, emphasis was on arrangement rather than accuracy. It was a long time, therefore, before medical knowledge was again subjected to the test of experiment and constructive thinking, and the therapeutics under discussion shared in this stagnation.

Revival

With the founding of the Universities in Europe, from A.D. 1100 onwards and with the discovery of original medical treatises interest was again aroused. In 1170 the Masters of Salerno tried to compile anatomical texts from old manuscripts, and to revive the study of physiology but practical work was, it seems, limited to the annual dissection of the pig.

Dissection

The revival led to a gradual improvement in medical training and treatment, and to a growing recognition of the responsibility of the practitioner. At Salerno professional examinations were instituted and an attempt was made to control professional practice. A decree was passed by Roger II of Sicily, in 1140, "to prevent the subjects of my Kingdom incurring peril through the ignorance of physicians."[1] It ruled that:-

Professional examination and control of practice

> "whosoever will henceforth practise medicine, let him present himself to our officials and judges to be examined by them, but if he presume of his own temerity let him be imprisoned and all his goods sold by auction."[2]

Frederick II in the next century declared:-

> "considering the harm that may arise from the ignorance of physicians, we ordain that no one shall henceforth practise physic unless he be publicly examined by the masters of Salerno and present testimonials and receive ... licence to practise."[3]

Licence to practise

Logic was to be studied for three years, medicine, including surgery, for five and anatomy for one of these.

---

1. Blaxland Stubbs & Bligh. Sixty Centuries of Health & Physick. London 1931. pp.92-3.
2. ibid. pp.92-3.
3. ibid. pp.92-3.

The precedent for a proper curriculum, for official qualifying examinations and for licence to practise had been set up, as had the precedent, too, for a training wider than a merely technical one, as a basis for giving treatment. The procedure of examination and licence to practise has since been followed in various forms by other professions connected with medicine, such as dentistry and nursing, and is now being discussed for the treatment services under consideration in this thesis.[1]

Recommendation for a wide training

No mention of clinical teaching or anatomical demonstration appears until some years after the founding of the University of Bologna (1158), where public dissection was again started, material being obtained, it is suggested, after post-mortems in the Law school, or by grave-robbing. Knowledge was carried from one University to another, but advance was gradual, and it was only after the beginning of the thirteenth century that anatomy and physiology again became established scientific studies. Therapeutics fared little better. Oribasius, physician to the Emperor Julian, compiled a medical collection, however, giving extracts from earlier works, many of them otherwise lost. He is quoted, with Celsus and Galen, and like Actius of Amida after him, as an authority on the medical use of swimming[2] and is said to have discussed the causes of strabismus.

Anatomy & physiology re-established

Swimming as therapy

Caelius Aurelianus a fifth century neurologist, gave prescriptions for active treatments of all kinds which are astonishingly modern. He observed and described all forms of paralysis, and recommended, among other treatments, massage and poulticing, and, later, like Rhazes, baths and graded exercises.

Aurelianus & active treatment

The following quotation[3] reads in part like treatment

---

1. See pp.90-93 and Appendix 5.
2. F. Adams. The Seven Books of Paul Aegineta. The Sydenham Soc. London 1844. Vol.I. p.27.
3. From I.E. Drabkin's translation of 'Caelius Aurelianus on Acute Diseases'. Chicago 1950.

instructions which might be found in any more recent manual of the treatment services under discussion:-

Eye & tongue exercises

"It is necessary to exercise each paralysed part in the preformance of its natural motion, e.g. in the case of the eye-brow, raising and lowering; in that of the tongue, extending and contracting. Instruct the patient to practise these movements."[1]

Speech therapy

"He should also be urged to try to speak. And even if he is quite unable to do so because of a complete loss of function by the tongue, persuade him to think out in his mind the things to which he cannot give utterance.[2] For it often happens that breath takes form in the deeper parts and being set in motion, breaks out into voice with the words the patient wanted to speak and had been forming in his mind. Or have him practise pronouncing one letter at a time. He should just go over the sound in his mind, and then utter it aloud; and it is preferable to practise with vocalic sounds, for otherwise the difficulty of sounding more than one letter at a time will tend to close the vocal organs rather than open them. Then, when he can pronounce these sounds, give him words, including proper names, to pronounce; the words should be composed predominantly of vowel sounds, such as 'paean' and the like. Also give him counting exercises and urge him to call off the numbers loudly. Then let him read aloud and participate in oral discussion."

"These measures are also to be taken if the parts of the jaws near the ends of the lips are paralyzed. And in this case give the patient mastic to chew, or soft wax to bite into, and a tablet of Linden wood. For all these devices give the affected part something to struggle against and this affords them exercise. Afterwards have the patient bite upon dry beans, soft almonds, and nuts, first avellans and then chestnuts, and gradually increase the number."

Physio-therapy, i.e. wax treat-ment

Exercises with weights

"In paralysis of the fingers, stimulate them by applying wax, which has a softening effect ... Moreover, at the same time give the patient weights to use for exercise. These should also be given to persons suffering from paralysis of the whole hand or any parts thereof ... but, before this, the emollients described above should be employed in order to stimulate movement (in the fingers) so that we may first get the patient to grasp or lift the weights, and then similarly to swing them and thus exercise the hands."[3]

Active exercises for legs

"If the legs are paralyzed, the patient should exercise them by movements of extension and contraction. If possible he should perform the

---

1. ibid. p.591.
2. See p.116.
3. I.E. Drabkin. op.cit. p.593.

Effort of patient necessary

exercise unaided, otherwise with the help of an attendant. But even in the latter case he should be encouraged not to rely for his exercise merely on movements (induced by the attendant), but to join in the effort himself."

Exercises in 'slings' with pulleys

"For the purpose of varying the exercise the following device should be employed for the movement of the affected parts. If the patient must lie on his back, a bandage is placed round the paralyzed leg. The loose end of the bandage is passed over a suspended pulley and is given to the patient or an attendant to hold. A demonstration of the twofold motion of the device is given, both patient and attendant being shown how to raise and lower the leg by alternately pulling and relaxing the cord. But since we desire not merely to raise and lower, but also to stretch and bend the paralysed parts, we must tie two bandages,[1] one around the knee and the other around the ankle. The ends are then passed, as before, over the pulley and given to the patient or an attendant to pull alternately. Thus when the end connected with the knee is pulled and that connected with the ankle remains slack the resultant motion is a bending of the leg. And if the patient can sit up the middle of the bandage may be passed under the sole of his foot and the ends given to him to hold; he is thus required to impart motion to his legs by his own efforts. And it is clear that the arm when paralyzed can be similarly exercised. For this purpose we have one bandage placed round the wrist of the arm in question, i.e. the part near the fingers, and the other round the elbow."

Walking carriage

"When the paralyzed parts have been moved and exercised as indicated, have the patient sit in a barber's chair which has arms at the sides. Let him try to lift himself by supporting himself on these arms. Again, let him try to walk, either propped up under his arms by attendants on either side of him or resting on a staff. He may also lean on a carriage which is easily moved by hand, a device of the kind often built for babies learning to walk; but in this case the carriage must be built up to the patient's height."[2]

Stepping over hurdles & ditches

"Then when the amount of walking which the patient does with the help of supports has been increased sufficiently, arrange wooden hurdles and have him try to step over them. And after that have ditches dug and make the patient walk down into them. Also add leaden weights to his shoes, first only a small amount, say an ounce, then gradually more and more, up to a pound. Then have him increase the speed of his walking, for this will require the use of more effort ... and have the patient use natural waters, especially warm springs, such as the springs of Padua, Vesuvius, Serra and

Warm baths

---

1. Vide Apparatus in Rehabilitation & Remedial Exercises. O.F. Guthrie Smith. London. 1949.

2. I.E. Drabkin. op.cit. p.595.

Swimming

> Caere, in Italy .... Also prescribe swimming in the sea or in the springs we have just mentioned; at first, however, an inflated bladder should be attached to the paralyzed parts to reduce the effort required in swimming. Again have the paralysed parts played on by a shower of water. The strong impact of the water is very effective in bringing about a change in the condition of the body. The patient shall also take a trip abroad on land or sea[1] ...

Trip abroad

Heat treatment

Caelius is also said to have prescribed sun-baths for chronic infections, and recommended "the most sensible and humane treatment of insanity in antiquity."[2] It is somewhat surprising that these clear instructions for progressive therapy did not contribute to a more permanent advance in treatment.

Actius & speech therapy

Actius of Amida recommended, according to Mettler, that "in vocal paralysis the patient was to be retrained by exercises of breath-holding and attempts at artificial vocalization".[3] Do these, together with the recommendations of Aurelianus, constitute some of the first recorded attempts at speech therapy, as distinct from speech training?

First definition of gymnastic exercise

With Oribasius, Paul of Aegineta shared the distinction of having produced the first definition of gymnastic exercise, postulating that "exercise is a violent motion".[4] He was also keenly interested in opthalmic diseases, and in certain cases he recommends

Eye exercises and use of mask

"exercising the eyes by looking at large letters or pictures.[5] Congenital squinting is cured by the application of a mask so that the children are "compelled to look straight forwards".[6] Were

First "orthoptist"

these prescriptions, in their turn, (and not forgetting, again, those of C. Aurelianus), some of the first records of the practice of orthoptics?

---

1. I.E. Drabkin. op.cit. p.597.
2. F. Garrison. op.cit. p.118.
3. C.C. Mettler. op.cit. p.507 and J.W.F. Blundell. op.cit. p.200.
4. F. Adams. op.cit. Vol.I. Sect.XVI. He adds: "The limit of its violence should be a hurried respiration."
5. ibid. Vol.I. p.41.
6. ibid. Vol.II. p.422.

Avicenna's definition of gymnastics

Avicenna, the philosopher and physician, was not apparently satisfied with the definition of gymnastics given by Oribasius and Paul Aegenita. Like Galen, he is said to have considered that active volition was a necessary condition of satisfactory exercise.[1]

Active volition an essential

Psychology

Roger Bacon was among those to whom belong the credit for furthering on scientific lines the best that could be drawn from Arabian psychology. His work also extended to optics, and he appears to have been the first to suggest the use of lenses for spectacles.

R. Bacon & optics

R. Bacon's comments on anatomy & on difficulties in dissecting

The scientific study of anatomy was, apparently, still difficult in Bacon's time, for, referring to problems of obtaining material and permission to dissect, he is quoted as saying:-

> "The operative and practical sciences which do their work on insensate bodies can multiply their experiments till they get rid of deficiency and errors, but a physician cannot do this because of the nobility of the material in which he works ... wherefore physicians are to be excused for their defects more than other workers in the sciences."[2]

With the present day emphasis on geriatrics, it is particularly interesting to note that Bacon wrote a treatise on "The Cure of Old Age & Preservation of Youth"[3] although his remedies savour of mystic rites and secret potions. He also extolled the verification of conclusions "by direct experiment",[4] a point of which the various professions under discussion might well take note. Are they prepared, today, to examine the value of their treatment claims, arrived at, often, empirically and with the enthusiasm of pioneers, and to substantiate these to the doctors and patients rather than waiting, as they have a tendency to do, for the doctors - with little knowledge of their skills, to "discover" them? Or, because

On direct experiment

Are the professions to-

1. Ludwig. H. Joseph. op.cit. p.1030.
2. R.H. Shyrock. The Development of Modern Medicine. London 1948. p.42.
3. London. 1683. (Trans. R. Browne).
4. Bl. Stubbs & Bligh. op.cit. p.102.

day too modest or timid?

of the undoubted difficulties - but surely not more than were met by the early pioneers - do they want "to be excused"[1] or find excuses?

PERIOD D. The re-awakening in science and culture - A.D. 1250-1700

"Progress is real if discontinuous. The upward curve resolves itself into a series of troughs and crests. But in those domains that archaeology as well as written history can survey, no trough ever declines to the low level of the preceding one, each crest out-tops its last precursor."

Gordon Childe
What Happened in History.
Pelican Books
London 1946. p.252.

Greater specialization

In this period medical studies became more specialised and there was greater concentration on detail. Experiments were various, and often unconnected, bringing about a narrowing of the fields. The inventions of paper-making and of printing, the discovery of the microscope, and the experiments in the medical use of electricity were among the important events which influenced the development of the therapeutic services at this time.

Fields become narrower

Influences on development of services

Anatomy and physiology became once more recognised and established disciplines, through the work of such masters as Henri de Mondeville, of Bologna and Montpellier; Mondino di Luzzi of Bologna - one of the first teachers to dissect again in person,[2] and Andreas Vesalius, of Paris, Padua and Brussels, whose study and writings laid the foundations for all modern anatomy.[3] Anatomy theatres were built at Padua, Paris and Montpellier, and dissection became again an accepted practice for the medical student. Even

Dissection again in person and in public

1. See p.29. quotation "2" and p.140.
2. As did Herophilus. See p.17.
3. C. Singer. A Short History of Medicine. p.82.

Dissection in England

in England, where anatomy was less advanced, Henry VIII passed a statute[1] permitting four dissections annually. Anatomical treatises, many with excellent illustrations, were also published, among the most notable being those of Leonardo da Vinci and Vesalius, (1543). The former is said, too, to have been interested in the rhythm of movements used in different trades.

The general revival of physiology was, however, somewhat slower, Harvey's discovery of the circulation of the blood, and Malphigi's complementary work,[2] only coming in the seventeenth century. Jan Swammerdam followed, with demonstrations of muscular contractions, Descartes defined the reflex arc, and Leeuwenhoek, the Dutch microscopist, discovered the existence and function of striped muscles.[3] Jean Canappe wrote "Movimento Musculorum" and Fabricus Aquapendente,[4] Antonie Deusing and Claude Perrault published works on animal movement. Attention, it may be noted, was being focussed increasingly on function rather than on structure only.

The printing of ancient medical texts and translations gave an impetus to the study of general medical methods, although many were still based on Galenic tradition. It was only at the end of this period, therefore, that the persistent, more advanced influence of research was able to infuse fresh thought and life into experiment and practice. Comparing the advances in medicine with those of surgery, Dr. Singer says:-

> "The character of internal medicine in the Middle Ages was below that of surgery ... knowledge of drugs was slender ... while little scientific progression was made, certain preventive measures were instituted."[5]

---

1. In 1540.
2. Discovery of the Capillaries.
3. These are illustrated in his Anatomia - (Batavorum) 1687.
4. It is interesting to note that F. Aquapendente also "described the phenomena of vision, of voice, of hearing". (1603) Ref. Thomas Arnold. Lip-Reading. London. 1885
5. C. Singer. A Short History of Medicine. p.77.

Setting up of asylums for the insane

Publication of medical dictionaries

Other significant features of this period were the setting up of a number of asylums for the care of the mentally sick, the publication, at the end of the seventeenth century, of medical dictionaries, and the formulation of medical statistics. Surgery was, in its turn, dependent on the improvement of basic medical studies. Apart from Guy de Chauliac's standard treatise,[1] there was little progress in this line until the experience gained in the Wars of Religion, coupled with the increased knowledge of anatomy, caused a marked change, and brought some eminent specialists to the fore.

Effect of wars: improved knowledge

Psychology becomes more scientific

A doctor prescribes cultural and practical occupations

Body & mind theory persists

"Psychosomatic medicine" postulated

In the field of philosophy and psychology fresh thought emerged. These subjects became more scientific, if varied, in the theories propounded by Bacon, Descartes, Hobbes, Spinoza, Locke and Stahl. Locke, psychologist and doctor, is said to have "recommended the inclusion of artistic culture, domestic training and handwork" in education, and took a particular interest in physical training.[2] Stahl, like Paracelsus,[3] a century before him, and like Hippocrates, Plato and Galen,[4] stressed the necessity of linking physical and spiritual well-being. He developed a close link between psychology and medicine, resulting in an increasingly valuable "tendency to pay greater attention to the psychic factors in explaining abnormal conditions of the individual"[5] - what, today, is termed "psychomatic medicine".

Discovery of mechanical devices & the mechanics of movement

Galileo, who discovered the law of falling bodies[6] (1604-9), devised the telescope (1609-10) and the microscope. His close friend, Giovanni Borelli, a professor of mathematics, wrote a treatise on mechanics of movement and respiration,[7] a fascinating

---

1. Grande Chirurgie. (1363) (Trans. L. Joubert. Lyons. 1597).
2. R. Sand. Advance to Social Medicine. London 1952. p.493.
3. 1493-1551.
4. See pp. 2.11.21-2.
5. G. Brett. op.cit. Vol.II. p.195.
6. He wrote Mathematical Discourses "relating to Mechaniks and Local Motion." (Trans. Th. Watson. London 1730)
7. De Motu Animalium. Rome 1680. This has excellent illustrations throughout.

illustration from which, - giving

> "a mathematical analysis of the movements of the bones and joints to balance a globular load on the neck while running"[1]

suggests a form of arrangement surprisingly suitable to present-day studies of functional anatomy and physiology. The medical use of electricity, too, was envisaged in this period, but the real progress in this line occurred only early in the next.

Medical use of electricity

In the re-awakening the elements which formed the framework of the services had, then, gradually been fitted into place, and in the next three centuries the distinctions between the different techniques and services themselves emerged, with growing clarity, to ultimate separation. This did not happen by any direct planning, but rather as the result of advanced knowledge becoming available for, and linked with, the application of each set of techniques. It may even be said that ultimate specialization was being foreshadowed.

The distinctions between services begin to emerge

The references to the use of the various techniques in this period are numberless, and cannot all be quoted, but it is important to cite enough to indicate the lines of thought and practice which were being followed. The use of massage was endorsed, as was that of baths and exercises in all forms. Michael Savanarola wrote on Italian baths (1450)[2] and Andrei Bacci published a book of "exhaustive information about baths known to antiquity and to his own times".[3] What has been termed "occupational exercise" was, as before, closely connected with remedial gymnastics, especially in cases where the latter maintained their psychological interest, and both appeared in the recommendations and experiments made by humanist educators, who aimed at developing "the man of vigour and

Remedial gymnastics still take the form of occupational exercise

1. Ludwig H. Joseph. op.cit. p.1058.
2. J. Freind. The History of Physick. London 1750. p.298.
3. A. Castiglioni. A History of Medicine. London 1947. p.895.

wisdom"[1] of Greek times.

Exercise as a substitute for other treatment

Petrarch (1304-74) wrote a pamphlet in favour of substituting exercise for other medical treatment, his own recreation being gardening, and, like Paulus Vergerius (1370-1444) he insisted that intellectual studies must alternate with exercises.[2] Vittorius da Feltre (1396-1429), the physician-educationist, stressed the importance of exercises, and of "joyous occupation",[3] and Cardinal Piccolomini, later Pope Pius II, recommended, - "for hardening purposes", - work in the open air, plain food, hunting, climbing, swimming, shooting - (with bow and arrow), and hurling the spear. Maffeus Vegius (1407-58) distinguished between two kinds of exercise, light exercise as a distraction from intellectual work, and stronger exercise for physical improvement, but Antonius Gazius (1450-1534) considered exercise only passive, to be used in conjunction with massage and as an aid to digestion.

Continued emphasis on exercise with an interest & as a distraction

Andrew Boorde's emphasis on mind and body principle

At about this time Andrew Boorde (b. 1470) the famous English doctor, published his "Dyetary of Health".[4] He had studied the works of Galen, Hippocrates, Avicenna and Rhazes, and was another who believed in exercises with an interest, declaring that:- "if the heart and mind be not pleased, nature doth abhor."[5] His recommendations range from mirth and elbow-room, sanitation and hygiene, to walking, "playing at the tennis, or casting a bowl, or poising weights or plummets of lead in your hands" - or "labouring". He warns against too much expenditure, too much sun, an incorrect diet,

His prescriptions include exercise, games, etc.

---

1. L.H. Joseph. op.cit. p.1034.
2. ibid. p.1034 - and see K.A. Kopp - Pietro Paulo Vergero, "Der erste humanistische Padagogue". Luzern 1893, in which "Ballspiel, Spaziergang, Brett-spiel, Gesang, Musik und Tanz" are mentioned.
3. L.H. Joseph. op.cit. p.1035. V. da Feltre has been described as "a prince of teachers" - See V. da Feltre by a Sister of Notre Dame. London 1918. References to plenty of exercise and fresh air, games and mountain climbing.
4. Written for his patient, the Duke of Norfolk. Pub. 1537-42. (See Ed. by E. Pook. Leicester 1936)
5. Boorde. op.cit. (E. Pook) - p.20.

and pleads for the proper care of those who are "mad or lunatic or frantic or demoniac", although, sadly, without any very clear understanding of their condition.

Ambroise Paré - a war-time surgeon

Ambroise Paré (1517-90) the well-known French military surgeon, considered that breathing exercises and massage were a part of gymnastic exercise, and included under this heading the carrying of loads, running and riding. He prescribed exercises as treatment, especially after fractures, devised ingenious artificial limbs for amputees, and taught his patients how to use them. He is also said to have recommended eye exercises and the use of the mask for occlusion.[1]

prescribes all forms of exercise including orthoptics

H. Mercurialis and his definition of exercises

Hieronymous Mercurialis (1530-76) wrote "De Arte Gymnastica"[2] a treatise in six books, for all interested in health. In it he is said to have divided exercises into preventive, therapeutic and military; to have analysed the muscle actions of various movements; and to have stressed the need for exact diagnosis and for particular consideration for each patient and disability. Football or punch-ball, or ball playing in general were recommended, the balls to vary in weight from those filled with feathers to those filled with sand. In walking he spoke of three grades, walking to and fro, more intensive walking, and mountain climbing. Running and jumping were also prescribed, and for arthritic patients, throwing the discus. He recommended exercises accompanied with music and exercises for the mentally ill, and included in his approved occupations rope-climbing and wrestling. He also prescribed riding and passive exercise in vehicles or swinging beds, and exercises of the voice and respiration. As he wrote on diseases of the eye and prescribed exercises for them it may, perhaps, be inferred that he used a form of orthoptic treatment.

Grading of ball games and exercises

Exercises recommended for the mentally ill and prescription of all the therapeutic techniques

Laurent Joubert (1529-83) considered that physicians, not

---

1. See also P. Aegineta & G. Bartisch. pp. 28 and 40.
2. Amsterlodam 1572.

Joubert tried to introduce exercises into medical courses

educators, should prescribe exercises, and he tried to introduce gymnastics into medical courses, but, apparently, with no greater success than Marsilius Cagnatus[1] some fifty years later. Was this, one wonders, an attempt to establish what has only recently been recognised, the Physical Medicine specialist? In passing, it is interesting to note that Cagnatus included the emotional outlets of laughing and weeping as exercise.

J. Duchesne prescribed all forms of exercise

In addition to the usual exercises of walking, running and ball games, Joseph Duchesne[2] is reputed to have prescribed swimming,[3] singing, playing music, card-playing, and, for those used to more strenuous exercise, carrying heavy loads and digging, and to have

Patients' individual needs emphasised

emphasised the importance of attention to the needs of each individual, suggesting, in addition, certain exercises particularly suitable for old people. Dr. Timothy Bright (1551-1615), medical lecturer at Cambridge[4] taught the value of baths, massage and exercises, and wrote various treatises supporting his theories.

F. Bacon stresses the importance of industrial physiology

With Leonardo de Vinci and Descartes, Francis Bacon, Lord Verulam (1561-1626) was one of the first to become interested in the analysis of industrial physiology. Rhythm, as well as posture, and expenditure of energy, were matters in which he, and notably Ramazzini after him, were concerned. Their work, followed in later centuries by that of others, pointed the way to the still

Occupational Health

new, and yet-to-be-developed science of "Occupational Health", with its many side-issues.[5] To the furtherance of this science the treatment services can undoubtedly make a contribution, and from

---

1. L.H. Joseph. op.cit. p.1050. Both wrote on exercises, baths, etc.
2. Or Quercertanus, (1544-1600), physician to the court of Henry VI of France.
3. One of the first medical references.
4. He wrote Hygeia, on preserving health, and Therapeutica, on restoring health, and later invented shorthand writing.
5. Viz: Ergonomics. Also - the Nuffield Department of Occupational: University of Manchester, and see C.T. Thackrah: The Effects of the Principle Arts, Trades & Professions & of Civic States & Habits of Living on Health & Longevity. 1831.

Value of certain exercises discussed particularly for the limbs

the various studies of it their own work may profit. Bacon is said to have referred to the healthy condition of galley slaves,[1] sailors and rowers, arguing that this was because they exercised their limbs more than their abdomens and stomachs. His comments on massage are original, and have been quoted again later by those to whom they particularly appealed.[2] He says:-

> "Frictions make the part more fleshy and fat, as we see both in men and in currying horses."[3]

He also recommends stutterers to "drink wine moderately", so that "they stut less, because it heateth".[4]

Sanctorius' theory of metabolism

Sanctorius Sanctorius,[5] author of "De Statica Medicina",[6] was the first to study body variations due to perspiration. He was influenced by the work of Descartes, Harvey and Galileo, and formed some of the earliest theories of metabolism.

Thomas Sydenham & riding again

Thomas Sydenham, an ex-Cavalry officer, and founder of clinical medicine in this country, became a much quoted authority on "occupational exercise", his main recommendation of horse-riding seeming almost an obsession. He is said to have cured "some of his relations of Consumptions"[7] by prescribing riding for them, "riding on horseback" - "which is best," or "driving in a carriage",[8] and to have recommended the same remedy for gout, colic, diarrhoea and constipation, for asthmas, and for removing obstructions from the liver and spleen,[9] - a rather astonishing variety of ills to be

Ills for which it was prescribed

---

1. Ramazzini - De Morbis Artificium. (Trans. W. Cave Wright). Chicago 1940.
2. See Sir John Sinclair. op.cit. p.275 and see p.51.
3. Sir F. Bacon. Sylva Sylvarum or a Natural History. London 1676. Century IX. p.189.
4. ibid. Century V. p.85.
5. Venice 1614.
6. Trans. J. Quincy. London 1720. See reference to "Insensible Perspiration as it appears by weight."
7. F. Fuller. op.cit. pp.165-70.
8. R.C. Latham. Trans. of The Works of Thomas Sydenham. London 1850. Vol.II. p.149.
9. J. Sinclair. F. Fuller. B. Ramazzini and R. Sand. op.cit.

treated by the same prescription. To those who had no horses of their own, he lent his. Like Celsus and Galen, he is said to have laid more stress upon diet, exercise, baths and massage than on other therapeutics, and this is borne out by a rather delightful story told by Francis Fuller in his "Medicina Gymnastica" of Dr. Seth Ward, Bishop of Salisbury, who, having:-

Emphasis on the value of the therapeutic techniques as against other forms of treatment

> "applied himself too much to close thinking ... fell at length in Hypochondriacal Distemper."[1]

Having tried every remedy, he consulted Dr. Sydenham who is quoted as saying:-

> "I advised him to commit himself wholly to Riding for a cure .. As soon as he perceived himself better after a few Days Trial he was animated with the Wonderfulness of the Event, and persevered in the same Course for some Months."[2]

Bernadini Ramazzini of Padua

Bernadini Ramazzini has already been referred to in foregoing sections, but his actual dates fall in this period. From being an unknown physician at the age of 38, he rose to be Professor Secundarius of Practical Medicine at Padua at the age of 67, and Professor Primarius nine years later.[3] The title "Professor of Practical Medicine" is most appropriate, and his treatise, "De Morbis Artificium", is a much quoted classic. His theme was occupational diseases and he not only set out to discover them and their causes, but to seek "the method of avoiding them, and their cure".[4] Only a few particularly relevant passages can be mentioned here, but the whole book is now available in the careful translation of W.C. Wright of Chicago.

Occupational diseases & their causes & cure

Importance of studying working conditions of preven-

Ramazzini stresses the importance of visiting workers in their workshops, the value of prevention rather than treatment, and when treatment was given, the importance of proper prescriptions, and the right approach of the doctor to the patient - "let him condescend

---

1. F. Fuller. op. p.165. 2. ibid. p.165.
3. B. Ramazzini - Trans. Cave Wright. pp.xxvi-xxxiv.
4. B. Ramazzini - Trans. R. James. Title Page.

tion and individual prescriptions

to sit down for awhile" ... even on "a three-legged stool or a side-table", and let him "look cheerful".[1] When questioning the patient about symptoms, the doctor should add, "what occupation does he follow?" - a matter, said Ramazzini to which attention is hardly ever paid. (The same rebuke may still, too often, be levelled at those working in rehabilitation services today).

Doctors must get alongside the patients

Consideration of patient's work

He deplored the tendency to be too intent upon strengthening the Body" only, so "bringing the Soul to the Ground".[2] Both should be considered in all treatment. "Weavers", he said, "like potters", (and unlike cobblers and tailors), "who exercise the arms and feet, in fact, the whole body,[3] keep in good health, so much so that for certain women's ills I advise them to consult women weavers ... rather than doctors",[4] - the first direct references that have been found to the therapeutic use of weaving, a craft which is, undoubtedly, one of the most adaptable for treatment purposes, of all kinds. Ramazzini endorses the use of exercise, massage, bathing (in some cases in strong wine) and hunting.

All interest not to be on the body

Weaving prescribed as treatment

The importance of diversion

With regard to the value of diverting occupations he says:-

> "When a man is troubled by various ailments, if he takes his mind off them ... by thinking of agreeable things that exhilarate the mind he will pave the way to recovering good health."[5]

Ramazzini's orthoptic prescription

Ramazzini also prescribed a form of eye exercises for those who do fine work. He says:-

> "It would help very much if ... they would now and again drop their work and turn their eyes elsewhere, or snatch a respite of several hours from their task and rest their eyes by looking at a number of different things ... You would hardly believe how much it helps ... if you gaze at a great variety of objects, some near, some distant, looking, now straight ahead, now sideways, in short, in every direction."[6]

---

1. B. Ramazzini. Trans. Cave Wright. p.13.
2. B. Ramazzini. Trans. R. James. p.296.
3. B. Ramazzini. Trans. Cave Wright. p.265.
4. ibid. p.433.
5. ibid. p.373.
6. B. Ramazzini. op.cit. Trans. Cave Wright. p.327.

A number of factors influenced ophthalmology, and therefore the advance towards the development of orthoptics, in this period.

Spectacles developed

Further experiments with spectacles had been made by a Venetian glass-maker in 1270-80, and in 1583 George Bartisch published his "Ophthalmodonleia, - das ist Augendienst".[1] In this he recommended the use of masks, as had Paulus Aegenita and Ambroise Paré. This work is probably the first devoted solely to the subject of what is now termed "orthoptics". In 1604, Johann Kepler demonstrated the inversion of the optic image on the retina, in 1619 Christopher Scheiner published his "Oculus";[2] in 1637 Descartes showed that accommodation depended on changes in the form of the lense, publishing, in 1644, a treatise on dioptics, and Leeuwenhoek in 1689 elucidated the finer anatomy of the cornea.[3]

First work in orthoptics

Fresh water baths as a form of speech therapy

The only reference which might be considered to have any connection with speech therapy is that recommending fresh water baths for "keeping the voice in good condition and softening it when it has become rough".[4] This recommendation calls to mind another, from The Thornton M.S.[5] - dated between 1413 and 1461 - containing medical prescriptions and charms. Prescriptions given include the following:-

More speech therapy

> "For haseness" .. "Ad vocem raucem" .. "Tak sange (blood) or primerose & stampe it wele & anoynt his tongue vnerneth with pe jewse & he sall spek sone" ...
>
> Or other "opers".
>
> "Tak archangelica[6] and gyff it hym and it sal helpe".

---

1. "Augendienst" - eye exercises. This book is illustrated throughout and gives prescriptions for correction of sight. There is reference to "turning the eyes outwards towards the ears", through the wearing of a "Kappe" like a "Sturmhut". A second "Kappe" is illustrated, showing a device for central focussing of the eyes.
2. This contains diagrams of the anatomy of the eye, and references to the work of Euclid. And see p.
3. In Arcana Naturae. Delphis Batavorum. 1695.
4. B. Ramazzini. op.cit. Trans. Cave Wright. p.335.
5. From Liber Diversis Medicinis.
6. Blind or dead-nettle.

"Tak pilial[1] reall & stamp it with vynacre & caufe[2] it & gyf hym to drynke & he sall speke."

Heat as treatment for gout & palsy

In addition, prescriptions are given in this same manuscript "For pe palsy", and for gout, - both to be applied with heat "by pe fire".

Exercises & massage for children

To return to the story of exercises, Nicolas Andry (1658-1742) Professor of Medicine at the Royal College, Paris, wrote the first work on "Orthopaedics"[3] and prescribed exercises for children, to improve posture, and as treatment for fractures, paralyses, and other diseases. He suggested riding and hunting for children of the upper classes, and rural work, such as ploughing, digging and carrying loads, for their poorer counterparts. He also gave careful prescriptive instructions for the use of massage, for eye exercise, in front of a "Looking Glass", and for the use of "small Flints" in the mouth, by those who stutter or have poor pronunciation.[4]

Treatment still variable

In spite of all this evidence of the use and appreciation of the techniques of the supplementary treatment services they were still in no way welded into consistent treatments, consistently prescribed. This was in keeping, however, with much of the medical work of the time which, though entering upon its scientific phase, was still variable, diverse, and dependent on personal enthusiasms and prescriptions.

---

1. Puliol. 2. Warm.
3. N. Andry. L'Orthopedie. Paris, 1743. 2 Vols. Trans. by M. Andry. London 1943.
4. ibid. pp.79 & 198.

d) THE DEVELOPMENT OF THE THERAPEUTIC SERVICES FROM A.D. 1700 TO THE PRESENT DAY, SHOWING THEIR EMERGENCE AS IDENTIFIABLE PROFESSIONS, DEVELOPING THEIR SPECIALIST SKILLS AND THEIR OWN HISTORIES

PERIOD E. A.D. 1700 - 1850

> "A vein of contrast runs through the eighteenth and nineteenth centuries, ... never was there a time of more vivid contrasts, of higher light and denser shadow ... Scientific discoveries of every kind cover this huge canvas, and the veil of complacency drawn across it by lesser men is rent by the Shaftesburys and the Kingsleys, the Nightingales and the Octavia Hills, who resolutely faced the facts and compelled their countrymen to see them also."
>
> R.J. Mitchell and M.D.R. Leys
> A History of the English People
> London 1950. p.382.

The persistence of the use of the techniques

The design of these historical notes has, so far, been to show the surprisingly persistent use of the various techniques throughout the centuries - surprising because, without more definite rules of application and without their acceptance into medical treatment as a whole, they still survived.

Medical books more accessible

In the eighteenth century when medical books were being written in languages other than Latin, and were consequently more accessible to the public, publications on medical and quasi-medical subjects were also produced in larger numbers by non-medical writers, who expressed attractive and persuasive but unscientific arguments to support their views. In the field of serious medical work, links with the continent were still maintained. The Industrial Revolution, which was at this time gathering momentum, gave wider publicity to health and social problems. Against this setting the treatment services gradually became distinguishable.

Non-medical writers on medical subjects

Gradual distinction of services

The advance of

The advance in anatomy and physiology continued. Research covered such subjects as the mechanics of respiration, the action of the nervous system, and the difference between reflex and

volitional action.

anatomy, physiology, mechanics, physics, medicine & psychology

Albrecht von Haller (1708-77) termed the "master physiologist" of the period, Johannes Müller (1801-1858) and the Weber brothers,[1] together with their pupils,[2] contributed impressive discoveries to such different sciences as physiology, physics, medicine and psychology while Justus von Liebig introduced laboratory teaching in chemistry and physiology.[3]

Laboratory work introduced.

Interdependence between psychological & physical conditions more fully recognised

In the psychological field there was a change in emphasis from introspection to observation, and to the assertion of the "dependence of the psychic upon the physical, without", Brett adds, "accepting any form of materialism".[4] This change was seen in the works of Kant and his associates. Weber followed by Lotze,[5] Fechner,[6] and Wundt,[7] worked on the lines of what is now termed experimental psychology, and Mendel formulated his theories of heredity on the basis of observation and experiment.

Experimental psychology

Establishment of hospitals

Pathology & preventive medicine

A growing number of hospitals were established, and in both medicine and surgery specialised study, publication and practice increased. Pathology, as such, was initiated,[8] and preventive medicine was introduced by naval and military surgeons. The names of Hermann Boerhaave, the great Dutch clinician, the Monro and Hunter brothers of Scotland, Pott, Sir John Pringle, James Lind,[9]

---

1. Ernst Heinrich & Wilhelm Eduard.
2. Pupils of J. Müller were:- E. du Bois Reymond, Helmholtz, the Webers, Lotze.
3. See his Animal Chemistry or Organic Chemistry. (Ed. & Trans. Win. Gregory. London 1842. He says:- "My object ... has been to direct attention to the points of intersection of chemistry with physiology". Preface p.xviii.
4. G. Brett. op.cit. Vol.III. p.317.
5. See his Medicinsche Psychologie. Leipzig 1852. In Ch.2. he deals with "Physische - Psychischen Mechanismus".
6. He refers to electricity - (galvanism) and magnetism.
7. Wundt established an Institute of Experimental Psychology in Leipzig in 1878.
8. By G.B. Morganini - (1682-1771).
9. In A Treatise of the Scurvy, (Edin. 1753) he recommends an ingenious form of exercise for those at sea - "riding on a cross deal laid between two chests", to parallel the "benefit from exercise in a coach-chaise or on horseback" on land. (p.227).

Anton Mesmer and Richard Virchow are all associated with the physical and psychological advances of this period. In the new field of psychological medicine there was marked improvement in the understanding and treatment of the patient. The names of Charcot, Braid and Esdiale are connected with experiments in hypnotism, that of James Mill with Associationism, reflected particularly in the study of psychomatic medicine, and that of Jean Esquirol, with the scientific study of mental illness. Scientific and medical societies were founded, and social reformers, among them, Jeremy Bentham, the Mills, Edwin Chadwick, Southwood Smith, Robert Owen and Lord Shaftesbury, and Elizabeth Fry, to mention only a few, had a lasting influence on the medical and social conditions of the day.

Improved psychological treatment

Psychosomatic medicine again

Scientific study of mental illness

The influence of social reformers

The latter part of this period has been described by Dr. Singer as one of "scientific sub-division",[1] by Shyrock as that of "the emergence of modern medicine",[2] and by Garrison as that of "theorists and system makers",[3] - all aspects influencing vitally the development of the treatment services, both at this time and later. Of importance too was the attitude of the age to cultural and social conditions. Garrison describes it as "artificial and theoretic rather than sincere and realistic"[4] but this seems a severe indictment, and inapplicable in the case of the social reformers. He speaks, too, of abuses, quackery being "universally successful",[5] a fact which, although it affected physiotherapy particularly,[6] did not deter its progress.

Modern medicine emerges

Quackery & abuse

---

1. C. Singer. A Short History of Medicine. p.186.
2. R.H. Shyrock. op.cit. p.129.
3. F. Garrison. op.cit. p.310.
4. ibid. p.381.
5. ibid. p.384.
6. With special reference to Massage and Hydrotherapy. And see B. Ramazzini, op.cit. (Trans. Cave Wright) - "Often they apply small cupping glasses, then when they have washed and rubbed them hard and half killed them by inches, they let them go home. Too often patients and bathmen do this without a doctor's advice." (p.275).

Electricity in medicine

Increased mechanisation

The fact that in the eighteenth century electricity became firmly linked with medical practice had a revolutionary effect on the treatment services. It was this, coupled with increasing mechanisation, that profoundly influenced their work, and drove a wedge between certain of them.[1] Samuel Quelmatz (1696-1758) was one of the earliest writers on medical electricity, but his name is important for another, more far-reaching reason. For those who could not afford horse-riding, he invented a suspended rocking-horse, and, while his intentions were undoubtedly good, this was the beginning of the cleavage between exercise and its interest, between the treatment of body and "soul",[2] which led to the later development of occupational therapy as a necessary complement to remedial gymnastics, once it was no longer a part of them. Electricity had, incidentally, something of the same divorcing effect.

Cleavage between exercise & interest - between body & mind

Galvanism

Luigi Galvani, Professor of Anatomy at Bologna, showed by his experiments the effect of electrical action in muscular contraction, and Allesandro Volta followed with demonstrations of "galvanism", showing that "a muscle can be thrown into continuous contraction by repeated electrical stimulation".[3] He was, it is said, the first to discover the electric cell and its possibilities.

More electrical discoveries

In 1784 Caldani experimented with electrical stimulation of the cortex and Leopold Nobili later discovered electro-magnatic induction. Interest was now aroused in treatment possibilities of this new force, and there is a long list of names of those who employed it therapeutically, among them those of John Freke (1688-1756), Surgeon of St. Bartholomew's Hospital, and a friend of Fielding's, John Wesley, preacher and medical adviser to his congregation, Jean Paul Marat, Jakob Heine and Eduard Henoch.[4]

Therapeutic use of electricity

---

1. Particularly between Occupational Therapy & Physiotherapy, including Remedial Gymnastics.
2. See p.2. 3. C.C. Mettler. op.cit. p.141.
4. In his Klinik der Unterleibs Krankheiten (Trans. J. Thomson. London 1882) there are references to the use of electricity in the treatment of a number of diseases & disorders, including chorea, paralysis, hysteria & laryngeal spasm. He also advises the use of "frictions of the limbs, stimulating baths & gymnastics". (Vol.I. p.296).

Installation of electrical 'machines' in hospitals

In 1767 the Middlesex Hospital, London, installed an electric 'machine', in 1777 one was ordered for St. Bartholomew's, while John Birch, of St. Thomas', was using this form of treatment for his patients and in 1802 published an essay on the medical application of electricity. In 1836, Dr. Golding Bird founded an electro-therapy department at Guy's Hospital, the first of its kind, and lectured to the Royal College of Physicians on the subject in 1847.[1]

Duchenne founds modern electro-therapy

Guillaume Duchenne, working on Faraday's theories is said to have been the founder of modern electro-therapy. He wrote "De l'électrisation localisée", (1855) and drew up a classification of the electro-physiology of the whole muscular system, studying, it is said, individual muscle and body movement. E. du Bois Reymond, (1818-96), a pupil of J. Müller, introduced faradic stimulation and wrote a work on animal electricity.[2] By the middle of the eighteenth century electro-therapy can be said to have become established alongside the other and older treatment techniques.

Electro-physiology

Faradism

Records of the use of all the techniques in this period are prolific. Reference can only be made to a few of them. The important point at this stage is to note the attitude towards the techniques and the professions - if they could yet be termed such - and how they stood in relation to each other. In spite of the introduction of electro-therapy, which was as yet considered outside ordinary practice, and had consequently not become linked with any other treatment technique, the five treatment services fell into groups similar to those in preceding periods. Massage, baths and exercises, (the latter still with their psychological

---

1. Published in 1849. On Electricity & Galvanism in their Physiological & Therapeutical Relations, containing case studies of all kinds and a full account of the development of electrical treatment.

2. "Direct experiments on the action of electric currents upon the nerves & muscles themselves must precede any ... certainty in the employment of electricity as a remedial agent." E. du Bois Reymond. On Animal Electricity. pp.ix & x. (ed. H. Bence Jones. London 1852).

attributes, although soon to lose them), were usually discussed and applied together. The practice of orthoptics developed on an increasingly separate line, with the names of its protagonists differing almost entirely from those in the physio-occupational therapy fields. Speech therapy, in its turn, may be said to have been linked with the latter mainly through its psychological aspects. Of the history of speech therapy little has been found in this period, but certain psychological experiments and discoveries were important to its development.

Orthoptics branch out on their own

Speech therapy's slender link with other services

Taking massage, baths and exercises first, a few names and publications must be mentioned. Sigmund Hahn used cold packs as treatment for fevers, and the two Drs. William Oliver of Bath[1] (not related), commended the bathing there, the later of the two, in 1751, writing "A Practical Essay on the Use and Abuse of Warm Bathing in Gouty cases". Sir John Floyer, in 1697, had written "An Enquiry into the Right use of Baths", and followed this in the succeeding ten years with other essays on the subject. Friedrich Hoffman,[2] the well-known Hallé clinician, influenced by Floyer, introduced Hydropathy to France. It is also said that he claimed to cure idiotism by exercise.

Use of hydro-therapy

George Cheyne published "Essays on Health and Long Life",[3] and discussed among other matters the "Disorders of the Mind depending on the Body". Edward Strother, M.D., wrote "An Essay on Sickness and Health", (1725), quoting the ancients, and commending Baths (Pumping); Exercises, including passive and active motion and swinging; exercises for the valetudinarians; and exercises "which must be selected according to every Person's Emergencies".[4] Referring to massage, he continued "It is our

George Cheyne & mind and body links

Importance of individual

1. The former wrote:- A Practical Dissertation on Bath Waters. London 1716.
2. He wrote:- Essays on the Nature & Properties of Waters, and commended bathing, quoting the Ancients.
3. 1742.
4. Ed. Strother. op.cit. p.247.

prescriptions emphasised again

business to take a view of Friction"[1] which he describes as "running the fingers over musical strings".[2] Frictions, or chafing, brushing and sponging are advised for Palsies, Spasms, or Cramps, Gout, Ricketts and other diseases, such as Hysteria, Hypochondria and Nervous Rheumatisms. Walking was discussed in detail, but its use was considered "doubtful" in Colicks. Of Standing he did not approve. He, in his turn, stressed the effect of the Body-Mind relationship:- "Good sense, and raising a different Idea" will often "parry those Passions which throw into Diseases",[3] and his essay ends with advice to "take occasion to introduce a different Habit",[4] an important function of the present-day therapies.

Diversion recommended & the introduction of new habits

Chirac's[5] recommendation for exercise in a carriage, moving over cobblestones, brings to mind the "Tremonssoir", or vibrating chair, invented by the Abbé St. Pierre, a device which like Quelmatz's swinging horse gave movement without its occupational interest. Voltaire is said to have used it for hypochondriasis and constipation.

Francis Fuller, in his "Medicina Gymnastica"[6] is enthusiastic in his support of the treatment techniques. He says:-

Variety in treatment called for

> "The Generality of Men have for a long Time had to narrow thoughts of Physic ... and it is very unreasonable to suppose that, since there are so many Ways for Diseases to enter upon us, there should be so few for Health to return by ..."[7]

The patient must co-operate

He is cutting in his indictment of the patients who "give themselves up to Expectation ... in the hope the Miracle will be wrought upon them without any concurrence on their Part",[8] adding, of Exercise:-

> "If People would not think so superficially of it, they would but abstract the Benefit got by it from

---

1. ibid. p.289
2. ibid. p.303.
3. ibid. p.432.
4. ibid. p.434.
5. Physician to Louis XII.
6. - or Everyman His own Physician. London 1740.
7. ibid. Preface. p.i.
8. F. Fuller. op.cit. Preface. p.vii.

> the means by which it is got, they would set great value upon it ..." - for - "by a negligent Diffidence they deceive themselves and let slip the Golden Opportunities of Recovering by a diligent Struggle, what could not be procured by the use of Medicine alone."[1]

Emotions affect health

Fuller discusses the effect of the emotions on health; laughter he describes as "that contrivance of Nature wherein the Body does sympathize with the Mind",[2] and then discourses upon Standing, Sitting, Walking, Hot Baths, Cold Baths, Riding (for Consumption and a Broken Heart), the use of the Brush for ladies who are "very fat",[3] and of Frictions for the limbs which should be prescribed with care. He alludes to the practices of "the Ancients" and quotes much from early Greek medical history to support his arguments, describing the relation of Exercise to Physic "as a Bandage is to Surgery, an Assistance or Medicine".[4] Although Francis Fuller's knowledge may not have been very sound, his book is of importance because it records more definite recommendations for the treatment of specific diseases by these various techniques than had been given hitherto.

Exercise as assistance to medicine

John Armstrong's famous poem on "The Art of Preserving Health" was written in 1774. He says:-

> "Toil and be strong. By toil the flaccid nerves
> Grow firm, and gain a more compacted tone ..."
> "... Begin with gentle toils, and as your nerves
> grow firm, to hardier by first steps aspire."[5]

Treatment by occupation

Jean Pierre Burette, a French surgeon, prescribed gymnastics for his patients and C.J. Tissot in 1780 classified occupational exercises as active, passive and mixed, and listed those he considered of value, among them sewing, playing the violin, sweeping, sawing, bell-ringing, hammering, chopping wood, riding and swimming. He also recommended massage for cases of paralysis.

Occupational exercises, active, passive & mixed

As may have been noticed, "prescriptions" were now becoming

---

1. ibid. p.viii.
2. ibid. p.7.
3. ibid. p.135.
4. ibid. p.57.
5. John Armstrong. op.cit. pp.63 & 72.

more specific. This fact is borne out again by the explicitness of other writings, such as those of Jean Pierre David's "Dissertation sur les effets du mouvement et du repos dans les maladies chirurgicales",[1] James Currie's "Medical Reports on the Effects of Water, cold and warm" (1797), and the manual by Guts - Muths, published in 1793, analysing the value of gymnastics, play and games.

Prescriptions become specific

Exercises analysed

The Ling movement

Medical gymnastics

One of the most famous pioneers in the whole history of gymnastics, Peter Henry Ling (1776-1839), the fencing teacher of Lund, founded the Central Institute of Gymnastics in Stockholm in 1813. He taught precision in movement, insisting on improved brain control for perfection, and developed a system of medical gymnastics on more scientific lines than any before this date. Jacques Delpech (1777-1832) a medical contemporary of his, was interested in the application of gymnastics to the correction of deformities, and founded an Orthopaedic institution between Montpellier and Toulouse, with a winter and summer gymnasium, and baths. At about this time John Barclay of Edinburgh, a pupil of Ling and a supporter of gymnastic exercise, published "The Muscular Motions of the Human Body", and a Silesian farmer, Vincenz Priessnitz (1799-1851), after being trampled by a horse, achieved his own cure by exercises, fresh air and baths.[2] He was an advocate for hydrotherapy, recommending cold packs and bare-foot walks through dewy meadows.

Priessnitz & hydrotherapy

First mention of training in a therapeutic technique i.e. hydrotherapy

Professor Wilhelm Winternitz opened a clinic and training school at Vienna for hydrotherapy. This is the first mention of any systematic training in any one of the techniques, and was, presumably, for doctors. Ernst Brand (1827-99), developing further Currie's cold-water treatment for typhoid, also studied hydrotherapy from a scientific point of view.

---

1. Paris 1779.
2. He wrote - The Cold Water Cure, its Principles, Theory & Practice, London 1842 - giving "A full account of the wonderful cures performed with it on 7000 patients at Gräefenburg, in Silesia, by the inventor." Gräefenburg was like Gheel - (see pp.60-1). The villagers took in patients, all their houses having baths installed.

Sir John Sinclair recommends exercise through work & exercises with an interest

In 1806 Sir John Sinclair, Bt., published "A Collection of Papers on the Subject of Athletic Exercise", and "The Code of Health and Longevity". He commends exercise through work,[1] and prescribes for an advancing society, in which fewer of its members will need to do manual work,

> "that species of voluntary labour, which is generally accompanied with some degree of pleasure as well as toil, which goes by the name of EXERCISE."[2]

He divides exercise into "the active, the passive and the mixed",[3] and lists swimming, gymnastics, riding, speaking and singing among them. He recommends friction, comparing it, as Francis Bacon did, with currying of horses, and cites Mr. Grosvenor of Oxford as a progressive expert in it, but adds the comment:-

The need for friction to be better understood

> "on the whole it evidently appears that the practice of friction is not sufficiently understood or attended to in modern times. It would certainly tend much, therefore, to the improvement of medicine, if all that is recorded upon this subject were collected and thoroughly digested, and if experiments were afterwards tried to ascertain the different values therein laid down."[4]

There was no doubt that massage had lessened in popularity, perhaps because, unlike gymnastics, its "different values" were not being fully assessed. Londe, writing in his "Gymnastique Medicale" in 1820, disapproves of "frictions and onctions", of "le massage et le massement", except for those who take no exercise, fearing that this treatment might encourage sensuality. John Shaw (1792-1827), however, head of a medical school in London recommended frictions and graded exercises, particularly for scoliosis, and referred to these treatments in his book on "The Nature and Treatment of Distortions of the Spine" published in 1823.

Disapproval of massage

Grading of exercises again

William Cleobury, in 1825, like Sir John Sinclair quotes "the late eminent surgeon, John Grosvenor Esq. of Oxford", publishing his "Full account of the System of Frictions as adopted and pursued

---

1. J. Sinclair. op.cit. p.250.
2. ibid. p.252. 3. ibid. p.252. 4. ibid. p.281.

System of frictions

Mechanics and manipulations

Emphasis on active treatment necessary

with the greatest success in the case of contracted joints and lameness." The emphasis clearly appears to have been shifting to more active treatment, and medical gymnastics, with the accent on the medical, were becoming firmly established.

Occupational treatment becomes separated from remedial gymnastics

This is the period in which, if one can so date it, occupational therapy (though not yet named), began a life separate from that of its twin, medical gymnastics. As has been shown, "gymnastic movement", "mechano-therapy", dissociated from occupational achievement, was becoming popular, but the occupational interest could not be left behind indefinitely. It was to be brought forward gradually in some other form. Dr. Buchan, in his "Domestic Medicine", written in 1774, in addition to recommending the warm baths of Buxton and Matlock, had stressed the advisability of men learning some mechanical employment and making "masterly specimens of their own workmanship, for the maintenance of health." "Inactivity", he adds, "frustrates the very design of creation."[1] This truth was re-asserting itself.

Achievement necessary to health

Improved mental treatment - patients recognised as people

Freeing of mental patients

The same sentiment was subscribed to in the psychological field, where the improved outlook on mental illness led to the recognition of the patients as people needing specialised forms of treatment. Philippe Pinel and after him, William Tuke and Vizencio Chiarugi had their patients freed from their chains. Pinel, in addition to following the recommendations of William Cullen (1772) that some of the mentally ill could be "cured by being compelled to constant, even hard, labor" - or music or play - gave occupations to his patients, declaring that "Prescribed[2] physical exercises and manual occupations should be employed in all mental hospitals." William Tuke, at the Quaker Retreat, York, also introduced occupations - "the women spin, the men manufacture

---

1. Dr. Buchan. op.cit. p.93.
2. The first mention of prescriptions for occupational therapy. P. Pinel. Medical and Philosophical Treatise on Mental Illness. Paris 1801. Ch.V. Quoted by S. Licht. op.cit. p.19.

straw articles and osier switches"[1] - and Vizencio Chiarugi (1759-1829) who attempted to classify the psychoses, gave occupations as treatment in the hospital of St. Boniface, Florence. Johann Reil, of Germany, prescribed occupations and exercise for the mentally ill in greater detail, declaring that "At all institutions, as soon as the patients are brought under control, they should be persuaded to engage in easily accomplished work",[2] adding:- "The work must be varied as the patient improves."

Grading and analysis of occupations and therapeutic prescriptions

He gives a remarkably lucid analysis of the application of various occupations to certain conditions in what are possibly some of the first notes on the scientific and therapeutic use of occupations. Dr. W.S. Hallaran (1810) of Ireland, urged the

System recommended

> "necessity of adopting ... a systematic arrangement of daily labour, by which incurable maniacs ... may still acquire the habit of rendering themselves useful to society, by thus diminishing a portion of the expense allowed for their maintenance, and also on the very important principle, of affording them the most certain means of enjoying a term of repose from the horrors of a certain malady."[3]

Economic considerations

The value of diversions emphasised

He speaks, too, of the value of occupations to the convalescent, and of the dignity attained by the capacity for outdoor work or the "fine arts".[4]

Dignity of work

Employment of patients had become widely, if only generally, prescribed in Europe the occupations being "designed to excite, relieve and recreate, as well as inform their minds".[5] Instructors were appointed for teaching the patients, and gymnastics, drama and music were added to the list of activities.

Occupational

Dr. Cleaton summed up the growing opinion of occupational

---

1. S. Licht. op.cit. p.25. Ref. J.C. Reid. "Rhapsodies on the Psychic Treatment of the Insane". Halle 1803.
2. S. Licht. op.cit. p.25.
3. S. Licht. op.cit. p.31. Ref. W.S. Hallaran - "Extended Observations on the Cure of Insanity". Cork 1810.
4. As illustrated by a description of a difficult case, ultimately discharged to a career in miniature painting. S. Licht. op.cit. p.33.
5. S. Licht. op.cit. p.11. Ref. P. Polonio on "the Basis and Indications of Occupational Therapy in Mental Diseases."

treatment of value in release of patients from restraint

therapy in his annual report to the Lunacy Commission, in saying that he was

> "fully persuaded that, next to the disuse of mechanical restraint, the most important recent improvement in the treatment of the insane, is the extent to which occupation is adopted."[1]

Ophthalmological progress

In the field of ophthalmology, and influencing therefore the history of orthoptics, this period shows considerable progress. G.L. Buffon, the French scientist, read a paper in 1743 entitled "Sur la cause de Strabisme ou des yeux louches", and recommended the occlusion of the fixing eye to improve vision. Dr. James, in his Medicinal Dictionary of 1743 recommends eye exercises for strabismus in almost the same terms as those of Nicholas Andry, of a century before.[2]

Jacques Daniel developed a new treatment for cataract (1752), and John Taylor, of Edinburgh, published "An exact account of 243 Different Diseases to which the Eye and its coverings are exposed", (1759), and what one imagines to be another John Taylor, a mountebank and charlatan of the first order, published 3 volumes of "history of the Travels and Adventures of Chevalier John Taylor, Ophthalmiator Pontifical Imperial, Royal etc., written by himself".[3]

The orthoptic mask again

Erasmus Darwin, in addition to his studies in psychology, described a device made of whalebone and gauze, for reducing the vision of the good eye and exercising the bad - a distinct piece of orthoptic treatment. Thomas Young (1773-1829) who studied the mechanism of vision and has been called "The Father of physiological optics", published several treatises on the mechanism of vision, and Charles Bell of Edinburgh wrote "on the Motions of the Eye and Nerves of the Orbit" - (1823). Wheatstone invented the Stereoscope in 1838[4]

More ophthalmological progress

---

1. S. Licht. op.cit. p.11.
2. See R. James. Medicinal Dictionary. Vol.III. Under Oculus. "Of the Strabismus or Squinting".
3. Dublin. 1761.
4. See Sir Ch. Wheatstone. Philosophical Transactions. London 1838. "Contributions to the Physiology of Vision" - § 3 - The Stereoscope - (illustrated).

and Duffin in 1840 wrote an account of "The New Operation for the cure of Strabismus and Squinting". Johannes Müller, the neurologist, experimented with the sense of sight, (and also with the action of the vocal chords), and was the first to give a clear account of binocular vision. His pupil, Helmholtz, was noted for his invention of the ophthalmoscope (1850)[1] - as well as for his treatise on the "Conservation of Energy", 1847. He considered, like Newton, the physical and psychic in his treatment of optics, and also studied sensations of sound.

Binocular vision

Ophthalmoscope invented

Body & mind in ophthalmology

The data particularly relevant to speech therapy have already been discussed in the preceding notes but to these the names of Jean Baptiste Bouillard, Charcot and Dax should be added, Bouillard for his study of aphasia (1742), Charcot (1825-93), the "purely objective investigator" who spoke of four types of motor aphasia, (quoting Hartley as the source of some of his ideas), and Dr. Dax, for his suggestion that loss of speech was most frequently associated with right rather than left-sided paralysis.[2]

The stage was now set for the establishment of the professions themselves. The improving social conscience, leading to important legislation, and the wars, no less than the peace, of the next century, all had their influence on the emergence and establishment of the various therapeutic services.

PERIOD F. A.D. 1850 - 1950

> "There was a time when those whom Providence had blessed with Leisure, Affluence and Dignity, did not think it any Diminution of their Characters to attend to the Necessities of the Indigent, and to alleviate the Miseries of the Diseased. And how little they have deserved from Mankind, who have laid out their Rhetoric and Wit, in representing this kind of Charity as ridiculous,

---

1. Helmholtz wrote - The Description of the Ophthalmoscope - Berlin 1851. (Trans. H. Shastid. Chicago 1916) - Handbuch der physiologischen optik and The Sensations of Tone.

2. G. Brett. Vol.3.

> useless and pernicious, is apparent from the melancholy condition of Multitudes who, disabled by Sickness from their daily Employments, languish and perish without Assistance. Had this Charity been better directed and the Warmth of Benevolence assisted by the Light of Knowledge, it had perhaps never sunk into Neglect."
>
> From - "A general account of Dr. James' Medicinal Dictionary".[1]

History now leads to organisation of professions

The history of this period turns from the actual practice of the techniques to the organisation of the professions, the formation of associations, and the institution of training courses, recognised examinations and qualifications. The "charity ... and warmth of Benevolence" came, at last, under direction, and this,

Training recommended

coupled with the "Light of Knowledge" which was kindled, resulted in the establishment of the several distinctive treatment services. To give an account of this last phase of the history is, however, a harder task than to present the events of the preceding centuries, for it would seem abundantly true that "the contemporary historian never writes such a true history as the historian of a later generation. It is a question of getting the true perspective, of seeing things in proportion"[2] and, one might add, of collecting the scattered scraps of evidence and information that have not yet been checked and collated. This, however, is perhaps the most important period in the development of the services and the only one offering any history of them as professions.

Anatomy fully established

The study of anatomy which was, by now, fully established, continued to improve throughout the nineteenth century and into the twentieth. Henry Gray's "descriptive and surgical work",[3] today in its third edition, and the stand-by of all anatomy students,

---

1. An undated prospectus advertising the Dictionary and announcing its publication "every Thursday fortnight till the whole is completed of". Robert James' Medicinal Dictionary was published ultimately in one volume in 1743.
2. Agatha Christie. The Mysterious Mr. Quin. Penguin. London 1950. p.18.
3. Catalogue of Exhibition illustrating Medicine in 1850. Published for the Trustees. The Wellcome Historical Medical Museum. Ox. 1950.

was first published in 1858. There were also various well-known treatises published on the continent, some merging their anatomical content with the newer study of histology. In biology, where the cell-theory was already known, that of cell division was discovered in 1852. In the field of physiology the names of Magendie and Bernard (France), Müller and Ludwig, (Germany), and Marshall Hall and Bell, (Great Britain), were known and remembered for research on such subjects as the digestion, metabolism and endocrinology, and in the physiology of the circulation and movement. Bernard also made a particular study of the nervous system.

Also histology biology and physiology

In 1858 Richard Virchow emphasised the importance of the individual cell in pathological conditions. From this time there was not only classification of diseases, but careful investigation into their causes.[1] Doctors carrying out their own post-mortems were examining or discovering conditions hitherto unknown, while further studies in neurology led to the distinguishing of various muscular diseases and obscure forms of paralysis. Discovery and diagnosis were not only dependent on the physician's natural capacity and perceptions. He had as aids the thermometer, the stethoscope, ophthalmoscope, (invented by Helmholtz in 1850), and the laryngoscope, (invented by Manuel Garcia in 1855). Public health measures were also expanding, and with them the recognition of the need for prevention as well as for cure.

Investigation into causes of disease

Aids to diagnosis

Anaesthetics public health & prevention

The hundred years now under discussion showed great advances in psychology, psychopathology and psychiatry. Charles Darwin propounded his theories, and Sigmund Freud, Carl Jung, and Alfred Adler, theirs of the unconscious, of archetypes and of organ inferiority. Other pioneers in the same field were numerous, but only few of the names can be mentioned, among them those of Wilhelm Wundt; (1832-1920), who published a work on the 'Principles of Physiological Psychology', (1869), William James; (1842-1910),

Advances in psychology, psychopathology, psychiatry

Different schools of thought

---

1. See p.17.

James Cattell (1860-1944); E.L. Thorndike (1874-); and R.S. Woodworth (1869-); A. Binet (1857-1911) and T. Simon (1873-), developers of one of the first series of intelligence tests; Pavlov of dog, dinner and bell fame (1849-1936), John Watson, the Behaviourist, Köhler of the Gestalt School, Spearman, Burt, Thompson and Bartlett. The variety of theories gave food for thought and experiment to students of all aspects of the subject, philosophical, physiological, experimental and social.

The effect of wars again

Control by economic factors

Rising costs in treatment and in training

The two wars of 1914 and 1939 gave the usual somewhat dramatic impetus to medical, surgical and psychological treatment, but between the wars the advance of medicine was governed to a great extent by economic factors. Specialization certainly resulted in greater costs in training of personnel and consequently, in treatment. As will be seen later, this influenced the development of the treatment services, and was also a precipitating cause of the planning of a National Health service.

Further medical advances produce certain problems

The prevention of clotting in blood transfusions, (themselves experimented with as far back as 1654), the discovery of the sulphonomides, of penicillin, and strepto and auro - mycin, revolutionised medicine. Although these certainly lessen suffering and prevent early deaths, they have presented medical and social authorities with another serious problem, that of caring for those whose lives have been prolonged beyond their capacity to care for themselves. To the solution of this some or all of the treatment services under discussion can undoubtedly make a contribution.

The advance of the services now to be traced separately

In spite of the discoveries in chemo- and other forms of therapy, the treatment services progressed markedly during this period. It will be necessary to trace their advance separately, from now on, for, as was shown at the end of the last period, their separation was becoming apparent. Before turning to them, however, one further general point is of particular interest, and explains, in part, why the proper moment for their expansion had come. They

The therapeutic services mainly women's careers

are in the main women's careers, and in the latter part of the nineteenth century the doors were being opened for women to enter occupations other than those of daughters, sisters, or mothers of households. In another and "better directed"[1] form, the "charity"[2] of the Lady of the Manor of the Middle Ages was to be revived. In 1844 Florence Nightingale spoke to Dr. Howe of "devoting herself to works of charity in hospitals",[3] and inspired by Pastor Fleidner and his wife, who in their turn had been animated by Elizabeth Fry's example, she set out to work as a deaconess at the Kaiserwerth hospital and orphan home in Germany. No account need be given here of her contribution to the improvement in nursing and hospital conditions: it is sufficient only to mention the founding in 1860 of the Nightingale School for Nurses, a decisive step in the organised training of women.

Organised training of women developed

The Medical Register, formed as a sequel to the Medical Act of 1858, contained among its names that of Dr. Elizabeth Blackwell, an Englishwoman who had qualified in medicine in America. She was the fore-runner of the gallant protagonists for the recognition of women doctors in Great Britain. Women were showing concern for their independence and suffrage, and women were taking up careers.

A further point of particular interest to note is that when, in 1908, technical training was made eligible for government grants, the then struggling women's medical school at the Royal Free Hospital claimed and obtained a grant on the ground that medical training was technical! Is it likely, one wonders, that the same argument would be put forward today?

Is medicine a technicality?

The emergence of the Professions

Occupational Therapy

The main trend in occupational therapy in this period - not

---

1. See Extract from 'A General Account of Dr. James' Medicinal Dictionary' at head of this chapter.
2. ibid.
3. C. Woodham Smith. 'Florence Nightingale'. London 1950. p.55.

Occupational therapy in psychological field

forgetting its still persistent link with remedial gymnastics - was its establishment in the psychological field. Its recognition in the physical field came as a bewildered, hurried and belated last; bewildered because of the many opportunities open to it and the sweeping, though not always accurate, claims made for it;

Hurried development in physical field in last decade

hurried because it was called to the fore only in the emergencies of the last war, with little time for experiment and integration. Like the massage of the century before, it suffered seriously from misuse, abuse and misinterpretation.[1]

Abuse & misuse

Since the middle of the nineteenth century there had been increasing recognition of the importance of occupation for patients. Florence Nightingale, in the midst of what might have been felt to be far greater emergencies, insisted on the provision of reading and recreation rooms and classes for convalescents, this in 1855.[2]

Occupational therapy in Brazil

The value of occupational treatment had spread widely, and practically. Chance reading of a book, written in 1865, by Professor Agassiz, an American naturalist, travelling in Brazil, reveals an interesting description of occupational therapy already in use there. In the Asylum for the insane established by the Sisters of Charity at Botafogo, Rio de Janeiro, the author

> "was struck by the order and quiet which seemed to prevail. With few exceptions all the patients were occupied, the women with plain sewing and embroidery, the men with carpentering, shoe-making or tailoring, making cigars for the use of the establishment, or picking over old cordage. The Superior told us" - he says - "that occupation was found to be the most efficient remedy ... Sunday is found to be the most difficult day because much of the ordinary occupation is suspended and the patients become unruly in proportion as they are unemployed."[3]

Occupational therapy in Europe

By the latter part of the nineteenth century, occupational therapy in some form was being used in France, Austria, Norway, Portugal and in Belgium, where at Gheel the impressive experiment

---

1. See pp.76 & 87.
2. C. Woodham Smith. op.cit. pp.239 & 241.
3. L. Agassiz. A Journey in Brazil. Boston 1868. pp.472-6.

Gheel. The mentally ill work alongside those who are well

in the care of the insane, sharing in the work of the townspeople with whom they lodged, has been described as "the oldest continuous occupational therapy project in history".[1] Occupational therapy was also being used in Germany, and at Gutesloh Dr. Simm

Nurses give occupations

> "attempted to give some form of occupation to every patient in the hospital who was capable of it, the occupational treatment being carried out by the nursing staff."[2]

Occupational therapy in Great Britain

In Great Britain the best known centres were The Retreat, York and Hanwell Asylum.[3] At the latter, patients were employed in all forms of utility work, but "recreation, exercise and amusement"

And in Ireland

were not forgotten.[4] In Ireland too,

> "an excellent system of education was introduced in 1858 at the Richmond District Asylum (Dublin). Teacher attendants of both sexes were employed ... In addition to didactic work, gymnastics, drills and dramatic entertainments were provided."[5]

Nurses & teachers gave occupations to the sick

There are three particular points of interest in these quotations. One is the references to "nursing staff" and "teacher attendants". Those who supported the cause of occupational therapy were prospecting to find the best person to be the occupational therapist of the future. Dr. Licht in his Source Book of Occupational Therapy quotes F. Hamlin as saying:-

But who should give this treatment?

The doctors?

> "the very men who should be best fitted to teach a school of such pupils, the physicians, are, from their numerous and onerous duties, least able to attend to it and they must necessarily relegate it to the care of others."[6]

Who these "others" were to be was a matter of speculation, experiment and evolution.

The second point of interest is the reference to the occupations

---

1. S. Licht. op.cit. p.13. It originated with the pilgrimages of the mentally distressed and ill to the shrine of St. Dymphna of the 7th Century.
2. Haworth and Macdonald. Theory of Occupational Therapy. London. 1946. pp.4-5.
3. Now St. Bernard's Hospital.
4. Haworth and Macdonald. op.cit. p.4.
5. S. Licht. op.cit. p.12. quoting J.N. Barstow in Am. Journal of Insanity.
6. ibid. p.13. quoting F.M. Hamlin in Am. Journal of Insanity.

Variety of occupations used as treatment

used in treatment. It will be noted that there is no limit to the range. Thirdly, the treatment value of the occupations was being appreciated and stressed.[1]

Occupational therapy in the U.S.A.

Occupational therapy in the U.S.A. suffered from fluctuating popularity and acceptance. It depended almost entirely (as it still does, too much everywhere) on the enthusiasm of particular doctors. Dr. Thomas Kirkbride, founder of the American Psychiatric Association, was one of its chief supporters. In 1842 he had written:-

Financial value of occupational therapy

> "The value of employment in the treatment of insanity is now so universally conceded that no arguments are required in its favour. Its value cannot be reckoned in dollars and cents."[2]

Some of the enthusiasm for this "treatment" died, however, with him in 1883, and a physician is quoted by Dr. Licht as saying, with some bitterness:-

The value of this treatment as compared with others Cutting of treatment budgets

> "It is human nature, especially among physicians, to think and speak slightingly of simple plain and everyday curative agencies and to exaggerate the healing virtue of the unknown quantity ... As compared with drug treatment, so far as the great mass of asylum population is concerned, occupation properly systematised and diversified is of immeasurably greater consequence." "Not only did physicians lose interest," continues Dr. Licht, "but in many hospitals budgets for activity treatment were reduced."[3]

History still repeats itself. These words seem strangely descriptive of the attitude of many in England before, during and after the last Great War and even after the introduction of the Health Act in 1948.

---

1. "It certainly ought to be laid down as a rule that no lunatic patient should be permitted to engage in work except under medical sanction. Asylum stewards and bailiffs ought to be kept under strict medical control in this matter." Dr. Hack Tuke. Manual of Psychological Medicine. York. 1879. p.687.
2. S.Licht, op.cit p.13, quoting E.D. Bond - 'Dr. Kirkbride and his Mental Hospital'. Phila. 1947.
3. ibid. p.14, quoting G.A. Blumer. Am. Journal of Insanity. Some research is being carried out today on this same subject.

In 1894 and 1899 two occupational therapy programmes for neurasthenics were instituted, in Switzerland and Germany respectively.[1] Dr. Henri Monnier's conclusion after a survey of the former,

Interest an essential element

> "that work could be therapeutic for such patients, if it aroused their attention and interest",[2]

postulates in its qualifying last phrase an important truism.

Still no system or name

The century closed with scattered experiments; the facts of the psychological value of occupations had been established, but there was still no co-ordinated system and no name for this form of treatment. In 1906, however, Harvard University, to quote Dr. Licht again:-

Research into occupational therapy

> "granted 1,000 dollars to Dr. Herber J. Hall ... to assist in the study of the treatment of neurasthenia by progressive and graded occupation. After four years of observation he concluded that 'the normalising effect of suitable manual work or even well-chosen intellectual work on the neurasthenic or psychaesthenic ... has only to be seen to be profoundly appreciated.'"[3]

Training in occupational therapy for nurses

At the same date the first course of "Invalid Occupations" was started for nurses in Boston, by Susan E. Tracy. As a nurse herself, she had

> "noticed the benefits which occupation could bring to patients to relieve nervous tension and to make bed-rest more bearable."[4]

Qualities needed in an occupational therapist

Discussion continued as to who was the right person to give this treatment by occupation. It was felt that some medical training should be combined with craftsmanship, so it was decided to graft occupational training on to those with a nursing background. In 1911 courses were started in various general and mental hospitals and in University departments. Several outstanding

---

1. The "Beschaeftigungs Anstalt", near Zurich by Grohman, an engineer, and at Haus Schönow in Germany, by Dr. Lahr. Prof. Rolliers "Orthopedie morale" developed in Leysin early 20th cen.
2. S. Licht. op.cit. p.14. Ref. Am. Journal of Insanity.
3. ibid. p.14, quoting H.J. Hall "Work Cure". Journal American Medical Association. 54.12. January 1st, 1910.
4. ibid. Note p.14, quoting S.E. Tracy, R.N., Mary Barrows, Maryland, Psych. Quarterly. 6, 58. 1917.

personalities in the history of occupational therapy, among them Mrs. Eleanor Clark Slagle, were among the first students.

Dr. Eva Charlotte Reid, writing in 1914 of what she terms "Ergo-Therapy", gives some idea of the crystallising thought in regard to the occupational therapy personnel of that time:-

The importance of the team in occupational therapy

> "In order to make ergotherapy effective in the treatment of mental disorders there are three factors which are absolutely essential: first, physicians who are trained psychiatrists; second, vocational instructors; and third, nurses trained in the care of mental cases ... In order that patients who cannot receive instruction in classes should receive individual instruction, it is necessary to have nurses in charge of each ward trained in the care of mental cases and able to do some vocational work."[1]

Nurses keen to nurse

This, in many ways, was the counsel of perfection, but several factors militated against its success. Nurses were, on the whole, keen to nurse and more interested in the sick than the better patient. Further, they were only occasionally interested in a variety of occupations or in vocational work. Some were, of course, excellent, and some always will be. On the other hand the vocational instructors were not, "treatment-minded". Doctors, too, were busy, and could often do no more than recommend "occupations" in the most general terms, sometimes only indicating vaguely the results sought and the necessary precautions. Who then, was to carry out these rather wide and imprecise prescriptions with sufficient medical and technical skill, and due care and understanding? By a process of evolution, and experiment, it became apparent that the person needed should combine, if possible, many of the qualities of both the nurse and the instructor, should have a vital personal interest in people, and should have those social and detached qualities which would make it possible to care for, and contribute to the re-establishment of the patient through occupational treatment.

Vocational instructors not treatment minded

Doctors busy; prescriptions vague

Qualities needed for occupational therapists again discussed

That occupational exercises were receiving more attention

---

1. ibid. pp.83-4.

from the treatment point of view at this time is instanced by a publication in 1915 by A. Vigue of "De la valeur therapeutique du travail musculaire systématisé en tuberculaire pulmonaire. Contribution à l'étude clinique et expérimentale de la cure de travail". Riding too had again come to the fore. In 1870 R. Chassaigne had published "Physiologie de l'equitation: de son application a l'hygiene et a la therapeutique".

Occupational therapy in France, Canada & U.S.A.

While occupational therapy was being sponsored in France and Canada, in the United States, Doctors Neff and Meyer insisted that "Occupation is a matter of prescription".[1] This is, even today, too little accepted, with consequent abuse, and wasteful expenditure of energy and money.

Prescription essential otherwise treatment uneconomic

Occupational therapy was still without a specific name, a fact which seemed to delay its development as a treatment entity. F. Lauret, of Paris had, in 1840, used the term "moral treatment",[2] and "manual work",[3] "art and mental work",[4] "invalid occupations"[5] were more generalised terms by which it was described. In the first world war Americans who were sent to European military hospitals were known as "Reconstruction Aides".[6] Dr. Reid's term, "Ergo-therapy" apparently did not appeal, and it was left to George Barton to originate the term "Occupational Therapy".[7] At the Clifton Springs Sanitorium, New York, the first meeting of the Society for the Promotion of Occupational Therapy was held in 1917.[8]

Term Occupational therapy chosen

Occupational therapy in the first world war

In the first world war Canada had taken the lead in this form of treatment, closely followed by the United States, when they joined the Allies. In Great Britain the eminent surgeon, Sir

---

1. ibid. p.15 quoting Neff, M.L. 'Occupation as a Therapeutic Agent'. Med. Record 78:996. December 3rd, 1910.
2. ibid. p.63.
3. ibid. p.19.
4. ibid. p.15.
5. ibid. p.14.
6. Willard and Spackmann. Principles of Occupational Therapy. Phila. & London. 1947. p.329.
7. S. Licht. op.cit. p.16.
8. In 1921 this became the American Association of Occupational Therapy.

Robert Jones, showed real appreciation of it. He prevailed upon the War Office to set up "Orthopaedic Centres", and at one he established the first curative workship of its kind.

> "Our first experiment", said Robert Jones, "in devising work having a direct curative bearing upon the recovery from injuries was started ... at Shepherd's Bush Military Orthopaedic Hospital.[1] The Plan was rapidly extended to other centres. It has proved a very valuable adjunct ... Theoretically we have the power to compel men to adopt this curative agency. In practice the power is never needed. We depend largely upon the psychological element to help in the recovery." ... "Those of us who have any imagination cannot fail to realise the difference in atmosphere and morale in hospitals where patients have nothing to do ... from that found where for part of the day they have regular, useful and productive work. If a patient's former trade or employment is a suitable one he is put to use tools he understands. Otherwise some occupation suitable for his disability and curative in its character is found for him."[2]

Great Britain behind in its development of occupational therapy

The War Office, however, took little interest in the experiment, and, regrettably, while after the 1918 Armistice Canada and America forged ahead, occupational therapy was viewed in England as a luxury, and for all but the most seriously and permanently wounded pensioners it was dropped. The inspiration and example of this pioneer experiment was however taken up again with great haste and little pre-planning when the second world war broke out.[3]

Occupational therapy still mainly in mental hospitals

Until the late 1920's occupational therapy in Great Britain continued to be given mainly to patients in mental hospitals, but <u>treatment</u> as such had not yet been clearly analysed or defined. Some of the first demonstrations of it were given by Dr. D.K. Henderson, in Edinburgh, and Dr. J. Iveson Russell at the North Riding Mental Hospital, Yorks, the latter publishing the first English book on "The Occupational Treatment of Mental Illness".[4]

---

1. In March 1916.
2. E. Watson. <u>The Life of Sir Robert Jones</u>. London 1934. pp.167-8. "In this pioneer scheme he had an unexpected and deeply enthusiastic ally in King Manuel of Portugal who ... was able to support his project with funds and unremitting labour." p.180.
3. See p. 66.
4. London 1938.

First English school of occupational therapy

The first school of occupational therapy in England was started by Dr. Elizabeth Casson at Bristol in 1930. The history of this

> "is inseparable from the history of Dorset House as a Nursing Home for the treatment of patients suffering from neurotic and psychotic disorders .. The demand for occupational therapists was for Mental Hospital work, and it was far easier to provide facilities for this type of experience. The physical aspects of Occupational Therapy were never lost sight of and during 1930 an embryonic Occupational Therapy Department to demonstrate the use of this treatment for physical cases, was opened at the Bristol General Hospital."[1]

Demonstrations of physical treatment

This latter experiment later expanded into a Curative Workshop for outpatients,[2] financed by Dr. Casson, to demonstrate further the value of the occupational therapy applied to physical conditions. It was ultimately and in great part this demonstration, coupled with that of the Shepherd's Bush experiment[3] that encouraged the Ministry of Health to establish rehabilitation workshops in their Emergency Medical Service hospitals during World War II.

The effect of these in World War II

First conference in occupational therapy (1934)

In 1934 the first Conference on occupational therapy was held at the Royal Society of Tropical Medicine and Hygiene, the speakers at which were surprisingly representative of the various fields of medicine.[4] Occupational therapy had certainly progressed a long

---

1. 'The Story of the Dorset House School of Occupational Therapy 1930-49'. p.9. (Private circulation)
2. See E. Casson. "Forty cases treated at Allendale Curative Workshop". The Lancet. Nov.1.1941. p.516.
3. See p. 66.
4. SIR HENRY GAUVAIN, M.D., F.R.C.S. (Medical Superintendent Morland Clinics and Lord Mayor Treloar Cripples' Hospitals, Alton)
   J.B. McDOUGALL, ESQ., M.D., F.R.C.P. (Ed.) (Medical Director, British Legion Village, Preston Hall).
   DR. VERONICA DAWKINS (Resident Medical Officer Malting's Farm Sanatorium, Nayland).
   H.J. SEDDON, Esq., M.B., F.R.C.S. (Med. Supt. Royal Nat. Orthopaedic Hospital, Brockley Hill, Stanmore).
   NATHAN RAW, ESQ., C.M.G., M.D., J.P. (Lord Chancellor's Visitor in Lunacy).
   MRS ELEANOR C. SLAGLE, (Secretary and Founder, American Occupational Therapy Association).
   DR. J.R. REES, (Medical Director, The Institute of Medical Psychology).
   DR. ELIZABETH CASSON, (Med. Director, Dorset House School of Occupational Therapy, Clifton, Bristol).
   DR. N.A. HAWORTH, (Severalls Mental Hospital, Colchester).
   MISS R. DARWIN, (Senior Commissioner, Board of Control).

way in a few years, and that, in spite of a depression. The Association of Occupational Therapists, England, was formed in 1936, and by this time other schools had opened in London and Edinburgh. The Scottish Association of Occupational Therapists was formed in 1932.[1] Occupational therapy had become a recognised supplementary medical treatment service and was developing all the characteristics of a profession.

Opening of other schools

Scottish Association formed

The following extracts indicate something of the progress of the new profession:-[2]

Progress of the profession - gradual

1937/38. "The demand for Occupational Therapists is limited but so is the supply."
1938/39. "The profession is still in a pioneer stage and demands keenness, enterprise and a thorough training."

Two further extracts are of interest, although the views of the occupational therapists of that time almost certainly did not tally exactly with the interpretations put on them.

"Occupational Therapy

Links between occupational therapy & physiotherapy recommended

This summer I visited several of the larger Hospitals in America, and I was impressed both by the status which physical medicine has attained in the medical hierarchy there ... One of the things which impressed me particularly was the development which has taken place in Occupational Therapy.
In this country occupational therapy has not yet gripped the medical imagination, and only one hospital has to my knowledge as yet installed a plant. There are two training schools in existence in this country, and I took the opportunity recently of asking a senior officer of one of these whether she would be prepared to work with the Society. She replied that she would welcome the project, and that she realised that this specialised work could have no firmer foundation than the existing training of the C.S.M.M.G. I suggest that the Society would do well to investigate the claims of occupational therapy."[3]

and further:-

---

1. Reconstructed in 1946.
2. Leaflet issued by Womens' Employment Federation.
3. Extract from:- "The Unity of Physiotherapy", by F.D. Howitt. (An address delivered to the Annual Conference of the Association of Teachers, November 25th, 1938). Printed in "The Journal of the Chartered Society of Massage and Medical Gymnastics", London, Jan.1939. p.213. Vol.XXIV. No.7.

Combined training suggested

..."The Training and Registration Committee reported that consideration was being given to an inquiry from the Principal of the Dorset House School of Occupational Therapy, Bristol, as to the possibility of arranging joint training for Chartered Masseuses and Occupational Therapists. The committee was of opinion that so far as the treatment of surgical and Orthopaedic cases was concerned occupational therapy should be regarded as a specialised branch of Physical medicine and not as a separate subject."[1]

An arrangement was made, however, for certain occupational therapy students to attend lectures at the physiotherapy school. The experiment which held in it the germ of successful co-operation was brought to a sudden end by the evacuation of the occupational therapy school from Bristol to Bromsgrove.[2]

Effect of war on trainings

The fall of France and the blitzing of Bristol nearly sealed the fate of this first and only extant school, but the Lord Mayor's Air Raid Distress Fund and the Ministry of Health together helped to re-establish it and its trained team of workers. Some of the wartime history can best be told in a further quotation from its history:-

Short courses arranged for nurses, physiotherapists & others

..."At the request of the Ministry of Health, the School agreed to organise war-time training courses[3] ... The candidates were selected and given courses in line with their previous qualifications - Nurses, Physiotherapists, and Craft Teachers were among the trainees for the more responsible grades. Candidates without previous qualifications were given a brief training to enable them to act as Auxiliaries. Altogether over 200 Ministry of Health candidates were trained, 75-80 of them having since returned to complete their diplomas. The full[4] ... course ... was allowed to continue and there is no doubt that this acted as a binding thread of stability through the background of the very hectic shorter trainings."[5]

War Office courses

The War Office had also organised several short courses in occupational therapy for physiotherapists, who took the Association's

---

1. ibid. Official Notices. p.224. Proceedings of the Council.
2. To Barnsley Hall Emergency Hospital, Bromsgrove, Worcestershire, in 1940.
3. Started in 1941 and subsidised by the Ministry of Health. Courses lasted 6 months.
4. Then 2½ years.
5. The Story of the Dorset House School. pp.15,16.

Edinburgh courses

American and Canadian help sent

Occupational therapy in mental hospitals curtailed

examination. Most of these were sent overseas. The Edinburgh School[1] held one short course to augment the staffs in the Scottish hospitals.[2] In America and Canada occupational therapy was in full swing and both again sent trained personnel to help both in England and in Scotland. One lamentable fact was that occupational therapy in Mental Hospitals suffered seriously during the war, and there was the risk of the ever-important psychological aspects of the treatment becoming over-laid with physical considerations.

Incorporation of Association

Position in 1948

1943 saw the Incorporation of the Association of Occupational Therapists. In 1948 the National Health Service Act came into being and at the date of transfer it can be estimated that occupational therapy was established in a large number of physical and mental hospitals of the country, although certainly not in all in which it was needed. In 1951 a World Federation of Occupational Therapists was formed, and this held its first international congress in Edinburgh in August 1953.

Orthoptics

Stereoscopy discussed & adopted

Exercises for squint

Bar-reading introduced

This period opens with Sir Charles Wheatstone's papers on Stereoscopy, (1850-52) and the adaptation by Javal of Paris in 1863 of his stereoscope, showing possibilities of treating squints by exercise. Javal later published a "Manuel de Strabisme", (1896), giving the first presentation of the fusion theory of squint and introduced bar-reading. He might in fact be described as the father of present day orthoptics.

Improved ophthalmological

In 1864 Donder's work on "The Anomalies of Accommodation and Refraction of the Eye" was translated and published in London. With Helmholtz and Albrecht von Graefe,[3] he created the scientific

1. Whose candidates are qualified by an examination conducted by that school's authorities.
2. England also supplied trained personnel for Scotland.
3. In 1898 he published Mobilitäts Störungen.

treatment basis for ophthalmology and surgery of the eye.

Lens & spectacle making

Between 1870 and 1900 lens and spectacle making had become more general. Meanwhile binocular vision and squint were the

Binocular vision & squint discussed

subjects of much speculation and publication. In 1868, Hering wrote "Die Lehre von binocularen Sehen", in 1870 Richard Liebrich published his "Atlas d'ophthalmoscope" and, in 1887, C. Schweigger his "Clinical Investigation of the Squint". In 1899 H. Parimand,

Stereoscope used for exercises

the Parisian ophthalmologist, used the stereoscope to exercise binocular vision and wrote "Le Strabisme et son Traitement". Much of Worth's later outstanding contribution to orthoptics was based on his work.

Vision charts, fusion tubes, heteroscope

Towards the end of the century Landolt invented vision charts and Priestley Smith, following many of Javal's theories, devised fusion tubes and the heteroscope. Although in the past, as Dr Singer says, "the treatment of ailments of the eye has stood somewhat apart from the rest of medical practice",[1] it is significant

Ophthalmological conditions treated by general practitioners

and apparent that throughout history those physicians who were interested in ophthalmology were usually general practitioners - or had several specialist interests - rather than being ophthalmological specialists only.[2] By this date, however, ophthal-

Ophthalmology now the work of specialists

mology had moved into the specialist field, and increasingly specific apparatus was being developed.

Claud Worth's contribution

At the beginning of the twentieth century Claud Worth, whose work remains "the basis of the present day orthoptic treatment"[3] developed the fusion theory further, recognised three grades of

Amblyoscope

binocular vision, and invented the amblyoscope, the basis of modern synoptophore. He published "Squint, its Pathology and

Other inventions

Treatment", a book which has since gone into many editions. Remy, in 1901, devised the diploscope. Ettles, in 1914, invented the

---

1. C. Singer. A Short History of Medicine. p.319.
2. viz. Hippocrates, Paulus Aegineta, and Paré.
3. J.H. Austin. "The History of Orthoptics" Br. Orthoptic Journal. Vol.4. 1947. p.120.

& developments

synoptophore, and Mary Pugh, on the same principle in 1933, the orthoptoscope.

Psychology in Orthoptics

A marked reversion to more consideration of "the whole man" took place, about this time with the introduction of psychology into orthoptics, by Cantonnet and Fillozet.

> "Perhaps the most important revolution in the past few years has been the realisation of the influence of applied psychology in Orthoptic treatment ... Nearly as important is the realisation that success in orthoptics depends almost entirely on the desire of the patient to be cured. Little less important is the added realisation that success depends almost as much upon the understanding by the patient of the practitioner's desire to cure."[1]

This realisation is called for in all the professions.

The need for psychology in all treatment services

There is little doubt too that, inasmuch as this need for psychological knowledge and understanding is recognised by them all, just so much will they, while still making their distinctive contributions to treatment, be able to work in closer and more understanding co-operation.

E.E. Maddox and his daughter, M.C. Maddox,[2] were the immediate fore-runners of present day orthoptic treatment. Bernard Chavasse, who re-edited Worth's work on the squint challenged much in current practice but at the same time made valuable contributions to modern treatment, emphasising the need for early diagnosis and therapy. His use of translucent glass was akin to the whalebone and gauze contrivance of Darwin, and later from it was developed the occluder.

Early diagnosis and treatment advised

The occluder

Orthoptics becomes a profession

Towards the end of the 1930's the practice of orthoptics was, in its turn, beginning to develop the characteristics of a profession. In 1937/38 the Women's Employment Federation leaflet gives the following note:-

> Orthoptic Work (Remedial exercises for Squint)
>
> Openings in this are so far extremely limited, but are slowly increasing.

and later

---

1. G.H. Giles. Manual of Practical Orthoptics. London 1938, p.127.
2. Later Mrs. Lowndes-Yates, and the first President of the professional association.

> Training and hospital facilities very much reduced as most of the children attending outpatient departments are evacuating. Training of students is temporarily suspended.[1]

Association formed

Between these dates a professional association, the British Orthoptic Society, had been formed, the first Annual General Meeting being held on November 4th, 1938. The first number of the annual Journal of the Society was published before the end of 1939.

First Journal

Contribution in World War II

The profession was now, if newly organised, ready for the very vital contribution it had to make throughout the second world war.

Orthoptics for flying personnel

The value of orthoptics in the treatment of flying personnel[2] became clearly established, and made it possible to return a large number, whose sight had become impaired, to active flying service.

Orthoptics in civilian work

In the meantime the use of orthoptics became more widespread in civilian fields and its prescription and practice, its psychological as well as physical successes, indicate that it has come to stay.

Training syllabus & curriculum brought up to date

The training has been lengthened, the syllabus and curriculum overhauled, and the practice methods are continually being improved.

Pilot scheme of combined basic lectures with occupational therapists

It is significant, too, that unofficially in September 1953, a small pilot experiment of combined basic course in the form of early lectures taken in common, was initiated by co-operation between an orthoptic and an occupational therapy school. The results may be awaited with interest.

Physiotherapy

Physiotherapy is the only profession under consideration whose professional association came into being before the end of the nineteenth century. The events which led up to the formation of the society in Great Britain were based on the world-wide awakening of interest in the various physiotherapeutic

Swedish

---

1. Interim Report. Nov. 1939.
2. Mainly for Heterophoria. (Ref. Appendix 2.)

Influence on British practice

techniques, spread from Sweden by the trainees of the Central Institute of Stockholm.

Electrical developments continued

E. du Bois Reymond continued with his electrical experiments, and Dr. Gustaf Zander,[1] of Sweden, about and after 1850, developed machines to exercise muscle groups. Dr. A.G. Kleen also of Sweden described his (Zander's) "mechano-medical" methods as giving

'Zander' exercise machines

> "active movements, most concentric and eccentric resistance movements, movements regulated by balance wheels, passive movements,"

and added that they

> "succeeded in partially replacing manual work in the Ling treatment by apparatus and steam-power."[2]

The developments were valuable and interesting, and to a certain degree progressive, but the emphasis tended to devolve upon assisted passive movement, without the element of interest which was a pernicious perversion of the pioneer's intentions.[3]

From 1898 onwards there was, in France, a spate of theses relating to physical treatment of all kinds, including massage and exercises. Everything from "Principes Swédois", and "La Natation" to "Le Football Rugby" and "L'Alpisme" were discussed. Champonnière, (1843-1913) tried to popularise massage, and Tissot, a Swiss, in his "Gymnastique medico-chirurgicale" (Paris 1870) discussed "wet or dry", "weak, medium or strong friction", while Dr. Tronchin, "A fashionable French Physician of the Eighteenth Century", used exercise and massage in his practice.[4] Thuré Brandt attempted to introduce the use of it into gynaecology but, it is said without success. A. Castiglioni makes the following comment on the attitude to massage during this period:-

Massage to the fore again

---

1. In the Physical Therapy Institute in Rotterdam there is one of the few existing complete sets of the Zander apparatus.
2. E.A.G. Kleen. Massage & Medical Gymnastics (trans. Bobbie) London 1918 p.12.
3. F. Watson in The Life of Sir Robert Jones speaks of "Monotonous movements with mechanical apparatus of the Zander type". p.168.
4. "Chop your own wood" he directs one nobleman. C.E. Edson. "Théodore Tronchin" - Univ. of Colorado Studies - Vol.VI. no.3. 1909. p.181.

> "Neglected by the profession, partly on account of its very simplicity and its relatively high cost when carried out by specialists, this valuable form of treatment has only slowly made headway in becoming a therapeutic measure in general use."[1]

Electrical treatment popular

The therapeutic use of electricity was meanwhile gaining in popularity. In and about 1890, D. Arsonval developed the use of High Frequency currents. R. van Zeynck, in 1898, demonstrated the possibilities of diathermy, and these were followed by the further experiments of Karl Nagelschmidt, in 1906.

A further comment on the increasing acceptance of physiotherapeutic measures is made by Castiglioni in his reference to the treatment of orthopaedics at this time:-

> "The more conservative non-operative measures include a greater reliance on rest and reconstruction, on braces and physiotherapy (massage, gymnastics, hydrotherapy, heliotherapy)."[2]

The vogue of hydrotherapy

Hydrotherapy was certainly becoming a vogue, and such places as Matlock, Buxton, Bath and Cheltenham flourished as fashionable treatment resorts, although in many, or most, treatment fast became a secondary attraction:[3] but Blundell, writing in 1864, commented that there was plenty of bathing but too little exercise. Simon Baruch, writing at the end of the nineteenth century, pleaded for training for those giving hydrotherapy.[4] In Germany and Scandinavia massage was becoming increasingly recognised as a useful form of treatment, and was, with bathing, in constant use in all Europe. Both continued to be used in the Orient, and in Australia, Africa and in America particularly their popularity increased. This was due in great part to the efforts of Dr. Sayre, Senior, and to Dr. Weir Mitchell. At the end of the century Dr. Kleen

A plea for proper training

---

1. Castiglioni. p.89.
2. Castiglioni. pp.876-7.
3. R.J. Mitchell & M.D.R. Leys. op.cit. "At Cheltenham it was calculated that 75% of the 3000 seasonal visitors had no intention of drinking the waters" p.402 - quoting W. Mavor. The British Tourist. London 1809. Vol.VI. p.295.
4. S. Baruch. An Epitome of Hydrotherapy. London 1920. Introduction.

said:-

The need for training again emphasised

> "An enormous need for physical therapeutic work is making itself felt more, as the value of massage reaches the general public ... Massage and medical gymnastics should be carried out by someone accustomed to it, with sufficient knowledge in his own line. Such a worker must know certain facts of anatomy and physiology, arranged and imparted with special reference to his work."[1]

Weir Mitchell, the enthusiastic American, who had used massage with great success for cases of hysteria and neurasthenia, roused interest again in its therapeutic possibilities in England.

Misuse and abuse

An increasing demand for massage, however, caused a number of women to take it up,[2] many of them, regrettably, unsuitable and undesirable, and the medical profession viewed it somewhat askance,[3] some being strong in their denouncement of it. It was felt essential, therefore, to rescue it from this censure, and to

Training started to counteract malpractice

demonstrate its medical possibilities. Training had been started for nurses in massage and electrical treatment,[4] and these courses gained the blessing of the Trained Nurses' Club. In 1894 several of the leaders of the newly developing profession, most of them nurses, met to discuss how to refute the serious and sweeping criticism of massage, and the exploitation of an otherwise valuable treatment agent. Ultimately a Council of nurses and remedial

The Society formed

gymnasts was formed to prepare for the formation of a society and finally, in 1895, the Society of Trained Masseuses was founded.

The Council of this new Society had decided to hold regular

---

1. E.A.G. Kleen. op.cit. pp.15,16. He adds:- "In studying this" - (i.e.anatomy and physiology) - "he has a right to skip with discrimination".
2. W. Cleoburey. op.cit. p.2 - Fore this purpose females were engaged, who supported themselves by this operation."
3. As far back as 1823 John Shaw, Sugeon and Lecturer in Anatomy had said:- "We have only to witness the operations of a professed rubber to be convinced that if the practice were superintended by one acquainted with anatomy & pathology, much benefit would result & there would be no risk of the patient's life being endangered with indiscriminate application". op.cit. p.153. See p.
4. Two of the first to receive this were Miss Rosalind Paget and Miss R.P. Fynes-Clinton, of the London Hospital.

Examinations and awards

examinations of their pupils and to award certificates. Even then Massage and Electricity, (the Weir Mitchell system), were to be "scientifically taught in a fortnight",[1] but the founders of the Society were serious in their intention to secure a "uniform standard of proficiency",[2] and this they demonstrated by first examining each other.

Prestige of treatment established

In 1896 certain well-known and interested doctors were asked to become the Society's patrons, and this helped to re-establish the prestige of the treatment in the eyes of the medical profession. Meanwhile remedial gymnastics had been developing concurrently, and often in association with massage, but the trainees in these were not always confined to nurses.

It was gradually recognised that a knowledge of anatomy and of pathology was becoming a necessity for a masseuse, as a basis for the treatment she gave by "massing"[3] and electricity, for even though use of the latter came under the closest medical direction, the former has always been left largely to the judgement and experience of the operator. By a process of trial and error, discussion and argument, a fuller training system was evolved, examinations were enlarged, and a conjoint examination (now eliminated) was developed for masseuses and remedial gymnasts. At the turn of the century the Incorporation of the Society took place.

Incorporation of the Society

Men admitted to examinations, but not membership

In 1905 the Society altered its Articles of Association to admit masseurs to examination, but, be it noted, not membership, which remained wholly for women. The first male candidates to take the examination were R.A.M.C. orderlies.

Interest in the new profession had spread to Ireland, and candidates from Dublin were presented for examination in that same year. Between 1911 and 1933 examinations for teachers were

---

1. J. Wicksteed. The Growth of a Profession. London. 1948. p.33. In the advertisement columns of Nursing Notes.
2. ibid. p.32.
3. ibid. p.38.

also established.

Physiotherapy in World War I

During the first World War the profession was active, and a Massage Corps was formed. 1915 was an eventful year for the Society: in April the first examination in medical electricity was held, and in June/July, the first copy of the Journal of the Incorporated Society of Trained Masseuses appeared. In 1920 the Society gained further recognition in the form of the patronage of Her Majesty Queen Mary, a patronage to which the present Queen succeeded in 1953.

First examination in electricity

Publication of Journal

Royal patronage

The Chartered Society of Massage & Medical Gymnastics formed

In 1920 the Incorporated Society of Masseuses and a small Manchester group amalgamated, and the Chartered Society of Massage and Medical Gymnastics came into being.

Notes on physiotherapy as a career, in the leaflets of the Women's Employment Federation of 1938/39, mention that:-

> "The Chartered Society of Massage and Medical Gymnastics issues a list of recognised training centres and holds examinations."

Teachers needed in all the services

and that "there is a demand for teachers" (a demand which is still in excess of supply in all the treatment services). Provincial branches were set up, linked to the main Society by the Central Branches Committee, and later Local Boards were instituted. Membership increased apace.

Change to The Chartered Society of Physiotherapy

In 1943 the name of the Society was again changed to "The Chartered Society of Physiotherapy", and in 1945 a further amalgamation took place with The Incorporation of Physiotherapists. The total membership is about 15,000 of whom not less than 8,000 are known to be in practice today. Commenting on the change of name of the new Society, the Lancet says:-

> "Seeing their field widen, the Chartered Society of Massage and Medical Gymnastics have changed their name to the more apt 'Chartered Society of Physiotherapy'. Some of the older ideas about massage are in any case dying a natural death: we are realising nowadays that it is not what the masseuse does for the patient but what she makes him do for himself that forwards his recovery. The new name, however, will not be

Co-operation of the patient needed

> a true index of this changed outlook unless ... the masseuse is willing to forego rubbing and passive movements in favour of direct education of the patient in the active use of his muscles. It is perhaps unfair to blame the masseuse for too much faith in the patting and caressing of muscles when most patients and many surgeons encourage her in it. Only lately has the onus of getting well been shifted to the patient: in the past he has expected to lie back and be treated."[1]

In addition to the Chartered Society of Physiotherapists there have emerged since the war certain smaller physiotherapeutic associations and specialist groups. Their establishment has arisen through some particular emphasis or interest and their members have been recognised as are the Chartered Physiotherapists for service in the Health Service.[2]

Physiotherapy in the Commonwealth

Discussion of the history of physiotherapy in Great Britain has led away from the history of the practice of the techniques and the establishment of the profession further afield. The countries of the Commonwealth have set up their own courses and professional associations.[3] They have looked to this country for a lead in standards and precedent but may not yet have achieved in all cases the measure of experience of the larger numbers in the 'parent' organization. Individual geniuses there are in all countries, but on the whole British Physiotherapy can be said to be second to none.

By the outbreak of the second World War the physiotherapy service was well organised and integrated. In 1939 a Massage Corps was ready and in May 1942 the first draft of physiotherapists was called up to go overseas. Some members of the profession served in civilian capacity, others as service members in the Royal Air Force. In spite of the excellent work done, work which no one of the Services - Army, Navy or Air Force - can afford to be

---

1. March 18th 1944.
2. viz. The Faculty of Physiotherapists Glasgow. The Physiotherapists Association - etc.
3. Australia 1905, lapsed - restarted 1935. Canada 1920. New Zealand 1923. South Africa 1924.

Physio-therapists help with occupa-tional therapy

without, physiotherapy has yet to be recognised as an official and essential part of the medical organization of these services.

As has already been mentioned in the history of occupational therapy, during this war certain physiotherapists came forward to take short courses of training in occupational therapy, grafting these, as has been described, on to their knowledge of medicine and movement. Here again they did some good work and in certain isolated places overseas were able to combine the functions of both trainings. It is significant, however, that of about 70 so trained, fewer than 10 have continued to practise occupational therapy. Otherwise those who have not left both professions have reverted to their first. This may set up speculations as to the reasons, but to those in close contact with the trainees and practitioners these were obvious. The majority would always have chosen physiotherapy as their profession: their interests lay in the earlier and perhaps more clearly defineable treatment of the patient.

but most revert to physio-therapy

The profession has personnel working for all Government Departments, the more so, (as for all services), since the Health Act was brought into operation. There is, however, a leaven of private practice and enterprise, of physiotherapists working in non-government concerns. This wider distribution undoubtedly helps to maintain a balance of outlook and experiment which may be envied by some of the less detached services.

Private practice main-tained

In 1953, the year of the Coronation of the Chartered Society's young patron the first international Physical Therapy Congress was held in London, forging another link in the chain of World Health.

First World Physical Therapy Congress

Remedial Gymnastics

In this period exercises, used in treatment, became more

closely linked with massage, and less with occupational interests than hitherto. They were also being adopted more widely as a form of positive hygiene and were being used increasingly in schools. Their expansion was influenced in the latter half of the nineteenth century by the extension of Frederick Jahn's "Turnen",[1] and the work of Adolf Spiess (1810-1858) and of Ling and his followers in Sweden, although Dr. Kleen states clearly that

> "among the workers trained by the Central and other Institutes, massage forms a more important and essential part of their work, both for themselves and their patients, than gymnastics."[2]

Medical gymnastics become a distinct treatment entity

Emphasis was, however, gradually shifting to remedial gymnastics. Hjalmar Fredrik Ling (1820-1886) the son of Per Hendrik Ling, a teacher of gymnastics under Branting, is said to have written a book on Kinesiology, and to have adapted gymnastic apparatus for schools, leaving, ultimately 2,000 pen drawings of positions and movements.

Gymnastics to become a science

About the same time one, Archibald Maclaren (1820-1884), a doctor, determined to "reform gymnastics and make a real science of it",[3] "settled in Oxford and opened a fencing school in Oriel Lane, afterwards converting it into a gymnasium. In 1858 he erected a building of his own, the University Gymnasium, in Alfred Street, at the corner of Bear Lane."[4] He is said to have been a friend of Burne-Jones and lived at Summertown, "then a small village separated by a stretch of country road from Oxford". In 1860 Maclaren was asked to develop a system of physical education for the army and in 1869 he published "A system of Physical Education", giving an analysis of methods and notes and tables on them.

Physical education for the army

Swedish influence

The Swedish influence on medical gymnastics had spread to England before 1850. Dr. John Blundell, author of "The Muscles

---

1. 1778-1853.
2. E.A.G. Kleen. op.cit. p.7.
3. F.E. Leonard. op.cit. p.205.
4. ibid. pp.205-6.

and Their Story from the Earliest Times" and "Medicine & Mechanics" was a convert to these methods. He proclaimed enthusiastically the value of all forms of massage and movement. In the preface to his first work[1] he postulates that -

> "if it be a matter of true history that on the introduction of wigs and monster perukes manly exercise gradually disappeared, then should we have more hope of the present generation of mankind."[2]

He continues - in his first chapter:-

> "Were we asked to give a definition of the comparative values of bodily exercise and of habitual inactivity, we should declare that the former promotes life without hurrying it and the latter hurries life without promoting it."[3]

Training in England and of women teachers

Meanwhile Lt. C. Ehrenhoff and Carl A. Georgii both came from Sweden to London to teach massage and gymnastics, the latter opening a private institute in 1850. In 1881 Miss M. Bergman, later Madame Osterberg, also came over to train women teachers, and in 1885 the first training college was opened at Hampstead.[4] The course covered one to two years in educational and remedial gymnastics and massage. The trainees practised mainly in schools and in private practice, but had little connection with the hospital-trained nurse-masseuse. A link was forged between the two, however, when the Society of Trained Masseuses was formed and there were representatives of both groups on its Council. Swedish exercises were also introduced into a number of public schools, and these included some remedial work.

Physical training in Germany

In 1[illegible] Germany had set up the Prussian school of Gymnastics at Spandau, the "Landesturnanstalt" in 1911, and between then and 1914, courses were given all over the country to men and women, enabling them to obtain a state qualification. University students of medicine, law, theology and other faculties attended.

---

1. i.e. The Muscles & Their Story from Earliest Times. London 1864.
2. J.W.F. Blundell. op.cit. p.IX. 3. ibid. p.1.
4. It moved to Dartford 10 years later. Still 10 years later the Carnegie Trust set up the Physical Training College at Dunfermline.

By 1920 remedial exercises firmly established

After the first World War physical education was becoming firmly established. Remedial exercises were still mainly in the hands of masseuses and medical gymnasts, although school physical training specialists gave remedial exercises in the schools to children needing them. Many students at the physical training colleges took the conjoint examination of the Chartered Society of Massage and Remedial Gymnastics until this was discontinued in 1947.[1]

Recreational and remedial gymnastics closely linked

In 1933/36 the Central Council for Recreative Physical Training was set up and in 1937 the Physical Training and Recreation Act was passed. A circular issued by the Women's Employment Federation in November 1937 speaks of

> "The new Government programme for the encouragement of Physical Training, which includes the establishment of National and Area Organising and Grant Committees, and the project of a new National Training College ....."

and lists, among the possibilities for training

> "Specialising in remedial physical exercises in special Clinics and other Institutions and in private practice."

There were also various "movements" and "schools" which offered training for remedial work on more individually distinctive lines than those at the Physical Training colleges at which the conjoint examinations of the Chartered Society of Massage and Medical Gymnastics were taken.

It was further noted in the same circular that:-

Combined treatments suggested

> "Remedial work through physical exercise is beginning to be used for post-orthopaedic cases and in nervous diseases, and also in the treatment of retarded or difficult children in special clinics."

> "For specialization of this kind the Dalcroze Diploma, a course in Speech Therapy or in Occupational Therapy, may be an additional qualification."

---

1. Except for those re-taking or completing the qualification by this method.

and

Remedial qualifications urged for Physical Training experts

> "In all cases where girls wish to take up Physical Education as a profession, it is important to urge them to look ahead to the time when they will no longer be young, and to secure qualifications for remedial work during their training, as this work is less likely to be restricted to young women."

The Second World War

Hard on the heels of this expansion came the Second World War. There were, as before, not enough remedial gymnasts, and service instructors, given short courses, again in great haste, were drawn into the work. In all service and civilian E.M.S. hospitals of any size there were, in addition to the physiotherapists giving remedial gymnastics to cases at an early stage in disability, physical training instructors giving exercises for convalescents. Since the last war the background of remedial gymnastics has been changing.

Remedial gymnastics become separated from educational physical training

Many Physical Training Colleges have ceased to train for remedial gymnastics as such and are concentrating mainly on other forms of educational physical training with some additional academic subjects. The remedial aspects still form an important section in the training of a physiotherapist, however, and the Chartered Society offers short courses in medical gymnastics to those with the full three-year training in physical education.

The formation of an Association of Remedial Gymnasts

In 1946 The Association of Remedial Gymnasts was formed. The Association welcomes its members, then, from three fields, all with differing forms and length of training, the physical education group, the physiotherapists, and ex-service physical training instructors. The Association has one school, at Pinderfields Hospital, Wakefield, where courses are mainly for ex-service Physical Training Instructors. Candidates from Physical Education Colleges, provided that they have taken a three-year course and wish to specialise in Remedial Gymnastics, may also attend. The courses for ex-service Instructors cover nine months[1] and those

---

1. i.e. 1 academic year.

for Physical education specialists, six months, a somewhat strange divergence, considering that the former have, inevitably, a very much shorter initial training. There is in addition

> "A special six months' course for certain unqualified Remedial Gymnasts who are already employed in the Health Service, providing they have had more than one year's experience, but candidates from this source are limited as it is only intended to clear up the position of a number of unqualified Remedial Gymnasts who are already employed in some hospitals of the Health Service."[1]

Training for women in remedial work

Women were only accepted for training after September 1952. Until then the courses had been restricted to men. The forerunners of these training courses were those arranged by the Ministry of Health after the Second World War, to equip ex-service instructors for work in civilian hospitals and rehabilitation centres. These were of six months' duration and were subsidised by the Ministry of Health, and qualifying candidates became the first members of the new Association.

Speech Therapy

Investigation into the origin of the motor power of speech, by Broca; into the problems of aphonia, by Broca, Wernicke and Cohen, and of aphasia by Head, Brissot of Paris and Leibmann of Berlin provided a background for the development of speech therapy in the latter half of the nineteenth century and the early decades of the twentieth. Treatment was already available in Germany, where the medical profession had shown interest and undertaken research. In Austria it was well established. Interest in the treatment of speech defects was aroused in Great Britain, however, only towards the end of the century. Dr. Morell Mackenzie published "The Use of the Laryngoscope in Diseases of the Throat" in 1865, Dr. John Wyllie his "Disorders of Speech", in 1894 - a book

Speech therapy developed

1. Quotation from letter from Hon. Sec. of the Association of Remedial Gymnasts.

which made history in that it was devoted to the subject of speech defect itself, not viewing it merely as a symptom of some other disorder. Meanwhile, Brown and Behnke developed their theories on the treatment of stuttering, and Thomas Arnold published several pamphlets on speech problems - "Lip Reading", in 1892, "Defects and Impediments of the Organs of Speech" in 1893, and "The Language of the Senses" in 1897.

Link between physical and psychological theories

At the beginning of the new century psychological and psychiatric theories were linked with neurological expositions. Dr. John M. Fletcher's "Problems of Stuttering"[1] indicated some trends of thought which tallied with opinions already expressed by Klencke who, writing in "Die Heilung des Stotterns" in 1862, had stated that "the mind itself stammers".[2] They also coincided with some of those of Denhardt, who wrote "Das Stottern eine Psychose"[3] and of Liebmann, who wrote "Vorlesungen uber Spracheheilkunde".[4] Systematised scientific treatment for speech disorders was still sadly mixed with strange and irrelevant prescriptions, however, such as shaking the arms, tapping the foot, etc.

The first speech therapists were speech trainers

Medical interest shown

Clinics opened in hospitals

The first "speech therapists" came from the ranks of speech trainers or those trained in voice production, teachers of singing, elocution or even of the deaf. By the pooling of knowledge between medical practitioners and speech and voice experts, a system of medical speech treatment was evolved, but there was as yet no special training available. Clinics for the treatment of speech defects in children were opened in some of the London hospitals - in 1911 at St. Bartholomew's, and in 1913 at St. Thomas'. A need for speech treatment had been established and "instructors in vocal

---

1. London 1928. A clear distinction is made between stammering and stuttering.
2. Van Thal 'A Short History of Speech Therapy. Speech Vol.IX. No.1. September 1945. p.8.
3. Leipzig 1862.
4. Berlin 1898.

therapy"[1] were appointed. Interest was now thoroughly awakened and at the end of the first World War certain Local Education Authorities followed the example of the Lancashire Authority which had started classes for stammerers in 1906. In 1923 "Professor D. Jones and Dr. Ida Ward, of University College, London, started a centre for the correction of Speech Defects"; and the Phonetic Department of the same College sponsored a 2-year research project undertaken by Miss Eileen Macleod (later Chairman of the College of Speech Therapists).

Research sponsored

Training offered

Training in Speech Therapy was now offered by some hospitals, but the methods and standards varied considerably. As in the other professions before them, misuse, wild and unfounded claims, and bad practice broke out all over the country. Unqualified workers advertised widely and charged highly for "treatment". The time had come to take some action to protect the patient and establish the integrity of the truly remedial workers. In 1934 a Remedial Section of the Association of Teachers of Speech and Drama was formed, later becoming the Association of Speech Therapists, and among others, not members of this association, a Society of Speech Therapists was also formed. The two finally amalgamated in 1944, forming the College of Speech Therapists, described as "an examining, organising and controlling body, but not a teaching body".

Abuse & mal-practice

Association of Speech Therapists formed

The College of Speech Therapists

Another profession had been born: another safeguard was offered to the patient, and another guarantee of standards, ethics and skill placed at the disposal of the medical profession for use in the treatment of their patients. There was, however, still a great deal to do to establish the correct place and distinctive work of the speech therapist, and it is not a little surprising to find, again in the notes on "Openings and Trainings for Women", 1937/8, the following:- "Speech Therapy - see Elocution".

---

1. The first use of the word "therapy" in relation to speech treatment.

Turning to "Elocution" one finds:-

Speech Therapy emerges from Speech training

> "Openings for paid work in Elocution itself apart from teaching are rare. Speech Therapy is becoming recognised as a new profession. A training arranged by a Hospital lasts from 18 months to 2 years. Some training in Speech Therapy is also given in the course for Teachers of Elocution."

The 1938/9 Leaflet says:-

> Speech Therapy
>
> A certificate of proficiency in Speech Therapy is given by the Central School of Speech Training and Dramatic Art.
>
> The West End Hospital for Nervous Diseases gives a ... course in Speech Therapeutic work.
>
> A number of private training schools exist.
>
> There are an increasing number of posts in Remedial Speech work in Hospital Clinics and under Educational Authorities and in Private Practice.

and the Interim Report of November 1939 adds:-

> Speech Therapy
>
> "Training still available"..."The normal two-year course may be shortened to meet war emergencies. Practical work with children may be arranged out of London, and it is hoped to give some opportunity for work with adult war cases."

Contribution to treatment in the Second World War

In 1940 speech therapists were preparing for the likely calls of the Second World War. A set of preparatory and refresher Lectures was planned at the West London Hospital, Hammersmith.

The following announcement accompanied the notice:

> The profession of speech therapy (the treatment of defects and disorders of speech and voice) was inaugurated during, and as a direct result of the war of 1914-18, and it is realised by those conversant with the situation that, whatever the present conditions, the call for this work will later be greatly increased. It is therefore of vital importance that such developments should find us prepared.

Though few in number, prepared the speech therapists were, but the authorities were slow to use their service. The account of "The Relationship between War conditions, Defects of Voice and Speech"[1] gives some idea of what was, nevertheless, ultimately

1. Van Thal. Folio Phonatrica. Journal International de Phoniatrie. Vol.2. No.3. 1950. pp.179-

First & second conferences

achieved for service and civilian cases. In 1945 the first conference of the College of Speech Therapists was held, and in 1948 a second, attended by representatives from Commonwealth and other countries. Both reports make interesting reading, and it is impressive to note the strides that appear to have been made between the two dates.

By the end of 1954, all the treatment services under discussion in this thesis were well established and recognised, the physiotherapists, as has been noted, a long way first, followed closely by the occupational therapists, orthoptists, speech therapists and remedial gymnasts. They all have their professional associations, their training schools and courses, and their professional examinations. Each has -

> "its own standards of training, principles of practice, and its own professional ethic. Having been trained to professional competence its members on qualification assume personal responsibility as guardians of the quality and integrity of work in the profession which they practise."[1]

- the hallmarks of a profession.

In the Report of the Committees on Medical Auxiliaries, published in 1951 acknowledgement was made of

> "the pioneer work which the various professional associations have done in the development of training and in raising the standards of qualifications",[2]

a tribute to the hard and often thankless efforts, in the face of criticism and opposition, but at times helped by responsible supporters, which went into the establishment of the supplementary medical treatment professions.

The immediate effect of the National Health Service Act on the supplementary medical treatment services and professions

There arose, in these services, as in all others connected

---

1. Reports on the Committees on Medical Auxiliaries - Sect.580 Minority Report I. p.125.
2. Reports of the Committees on Medical Auxiliaries. Sect.42. p.11.

with health and hospital organisations, problems of adjustment and re-orientation caused by the implementation of the National Health Service Act. Many of these have yet to be solved: a number of them are discussed in the next section of this thesis. It is only intended here, therefore, to bring the history of the evolution and development of the services up to date by reference to the recent events which affect them as professions and which impinge on their newly attained professional staus.

The setting up of the Cope Committees

The "increased awareness"[1] of the existence of certain specialised treatment services at the date of operation of the Health Act, caused the Minister of Health and the Secretary of State for Scotland to set up eight committees in 1949 under the chairmanship of Mr. (now Sir) Zachary Cope. Their terms of reference were

> "to consider the supply and demand, training and qualifications of certain medical auxiliaries employed in the National Health Service and to make recommendations."[2]

All the services under consideration here were included, except that of orthoptics,[3] but remedial gymnastics were covered by the committee dealing with physiotherapy.

The findings of the Reports not unanimous

The findings of the "Cope Reports" were in no way unanimous, and it is significant to note that the main dissenters were the members of the professions under discussion themselves. Because of general disagreement the report was dropped: it is not, therefore, appropriate to discuss it fully here, but certain points of fundamental importance which were put forward should, perhaps, be noted:-

Some reasons for dissension

1) The objection to the term "medical auxiliary", because:-

---

1. See Preface. p.i.
2. Reports of the Committees on Medical Auxiliaries - London 1951. p.1.
3. This profession was referred to in the Crook Report. i.e. The Report of the Interdepartmental Committee on the Statutory Registration of Opticians. 1952. H.M.S.O. Cmd.8531.

"The word 'auxiliary', particularly in relation to hospital services, has, by common use come to denote an untrained or partially trained person, e.g. 'nursing auxiliary'."[1]

The members of the professions concerned claim that they offer

"specialised knowledge and skills which can only be acquired outside the field of medicine."[2]

There is a difference, even, between being termed a member of an "auxiliary medical treatment service",[3] and being called a "medical auxiliary". Hence the protest.

2) The fact that there is no precedent for the form of registering council proposed, with "unlimited and undefined powers", and an over-weight of medical control, to direct

"a number of distinct professions, whose diversity is clearly apparent ... The Council, as proposed, would be unrepresentative of the members of the professions concerned and too remote to have a knowledge of their functions and special problems."[4]

---

1. Report of the Committees on Medical Auxiliaries, London. April 1951. p.125. Sect. 583 A.
(Referring to the suggestion that the nursing curriculum should be limited "to matters truly relevant to a nurse's duties", Miss Marriott, Matron of the Middlesex Hospital says in The Lancet:-
"If this suggestion were adopted ... our nurses would be reduced to mere auxiliaries*... The danger of serious mistakes due to lack of understanding would be bad enough, but even worse would be the effect on recruitment. For intelligent girls of 18 who had passed their General Certificate of Education in a number of subjects at ordinary or advanced level would consider entering a profession in which they were denied sufficient ... knowledge to understand the more technical aspects of their calling.") *(underlining inserted)

2. ibid. p.126. Sect. 583 B(c).

3. A better term would be a "supplementary medical treatment service" - as used throughout this thesis.

4. Report of the Committees on Medical Auxiliaries. p.126. Sect. 583. B(b)___& "I find myself at variance with a view which is sincerely held, I believe, by quite a number of admirable doctors ... that members of the non-medical professions are servants of the doctors, their inferiors and subordinates, in whose occupational organisations and affairs medical opinion should predominate ...
"... If the medical profession desires freedom for itself and the fullest and best help from other professions - without whose devoted and loyal assistance it cannot give proper medical care to its patients - it should cherish freedom, not only within its own profession but for and within those other
(contd. on next page)

3) The fact that the Legislation proposed was on behalf of the National Health Service only. The signatories to minority report I commented on in the following terms:-

> "We would draw attention to the fact that employing authorities in the National Health Services use registers of nation-wide application, established by the General Medical Council, the General Nursing Council and the Central Midwives Board. We are aware that our terms of reference relate solely to the requirements of the National Health Service but we feel that to achieve the desired result it is imperative to take a wider view."[1]

They noted, too, that confining compulsory registration to those working in the National Health Service only would seem

> "to involve the possibility, that more than one standard of basic qualification may be recognised within a profession."[2]

This would apply in all professions but especially in the case of speech therapy which is not confined to hospital and the health service. Speech Therapists are employed in equal, or larger numbers in the educational service and this service has, therefore, professional problems not entirely paralleled in the other professions.

After the dropping of the "Cope Report" constructive counter-proposals were submitted separately by the various professions concerned, the professions recognising the desirability of State Registration, and the fact that the Ministers must have some guarantee of standards and service. They respect the desire for some form of co-ordination between professions, but it is felt that this should not be imposed by ministers alone, or in fact completely controlled by any other profession, i.e. the medical profession. They are of the opinion that some system by which the

Desirability of State Regulation recognised

---

professions regarding those professions as its valued colleagues ..."
"Given true leadership, in place of domination, by the medical profession, I feel little doubt that the other professions would increasingly make their contributions, and valuable contributions they could be."
L. Farrer Brown. The Almoner. April 1953. p.15.

1. Reports of the Committees on Medical Auxiliaries. London 1951. Minority Report I. p.126 B(a).
2. ibid. p.126 B(a).

professions can share in a guarantee of integrity and good service with proper professional responsibility must be sought. There was not, however, "sufficient agreement on fundamental matters"[1] to find an immediate solution to the impasse, so, at the time of writing the Minister of Health and Secretary of State for Scotland have put into force certain Regulations.[2] These define

Qualification recognised for the N.H.S. by Ministerial regulation

> "the qualifications required for employment as medical auxiliaries in the National Health Service."[3]

It is understood that they are temporary. There are certain unwelcome features in this action, not least among them the recognition of qualification by ministerial regulation only.[4] The

A working-party to be set up

Ministers at the same time, set up a working party which representatives of the professional bodies were invited to join. Its aim was to devise a generally acceptable plan for some form of state registration.

> "The Ministry's statement ends" - says the Lancet report - "with the reassurance that the regulations will in no way prejudice the possible introduction of statutory registration."[5]

A commentator in the British Medical Journal adds:-

> "There is now undoubtedly an opportunity for the Minister to achieve a piece of constructive statesmanship which will bring the position of medical auxiliaries into line with other professions in the National Health Service."[6]

And, it may be added, there is also an opportunity for the professions to show the genuineness of their intention to offer all that a profession claims it can, and should, for the benefit of that Service.

A plan has now been drawn up and is under consideration by various other interested bodies and by the members of the professions themselves, prior to the final drafting of the Statute.

---

1. Br. Med. Journal. 28.3.53. p.736.
2. The National Health Service (Medical Auxiliaries) Regulations 1954. S.I. 1954 No.55.
3. From 1.4.54 onwards.
4. The Lancet. 30.1.54. p.255.
5. ibid.
6. British Medical Journal. 6.2.54. p.325.

PART II. THE INTER-RELATIONSHIP OF THE SERVICES (contd.)
AND THEIR PLACE IN THE SOCIAL FRAMEWORK

a) THEIR AIMS

b) THEIR DIFFERENCES

c) THEIR LINKS

d) THE EXACT SERVICE EACH RENDERS

e) THE PLACE OF THE SUPPLEMENTARY MEDICAL TREATMENT SERVICES IN THE HEALTH SERVICES

f) THE GENERAL NEEDS OF THE SERVICES WHICH, IF FULFILLED, WOULD ENABLE THEM TO FUNCTION EFFICIENTLY AND WOULD GIVE THEM A WARRANTED PLACE AMONG WELFARE SERVICES

PART II. THE INTER-RELATIONSHIP OF THE SERVICES (contd.) -
AND THEIR PLACE IN THE SOCIAL FRAMEWORK

a) THEIR AIMS

"The need to translate an amorphous sense of social obligation into practical action is being felt more and more."

A. Comfort
"Social Responsibility in Science and Art."
The Listener 29.11.51. p.919.

The particular aims of each service are distinguishable, in large part, by their names and the descriptions already given.[1]

The general aim common to all

Their general aim is one common to them all, as well as to other medical and social services, viz. - to contribute to the investigation and treatment of disease or injury and to "re-able" the patient to the highest level of his capacity, compatible with his circumstances.[2] This covers physical, psychological, social and economic rehabilitation, although there is more emphasis on one aspect or another, according to the techniques used and the needs of the case.

Possible value of more common consideration

If however, there were opportunity for common consideration of these important but general factors at some stage in the various training courses, could the results not be better harmonised? It is believed that they could, but discussion of this comes more suitably in the next section of the thesis.

---

1. See pp. 1-5.

2. See pp. 130-1.

b) THEIR DIFFERENCES

"Not only do institutions and ideas survive
the conditions which produce them, but also,
once they have come into existence, they
manifest a very vigorous life of their own."

Olaf Stapleton
Philosophy and Living
Pelican London 1939
Vol.2. p.311.

There are immediately recognisable and fundamental differences between the five services under discussion. Some can be seen at once from the descriptions given, others are equally clear when practice is observed. Their skills, so obviously distinctive, have to be separately acquired and these skills could not, without demanding an exorbitant amount of time and concentration, be included in the courses of one or other service, nor in those of nurses or doctors.[1] It is true, however, as has been shown in the preceding historical survey, that all share the common heritage of experiment and discovery to which the philosopher, priest and physician, the mathematician, the astronomer, the artist and engineer have, throughout the ages, contributed.

Skills have to be separately acquired

With the difference in skills there is a difference in the application of treatment. In orthoptics particularly and possibly in speech therapy the treatment may be termed localised, although the therapists would rightly claim that the whole condition and circumstances of the patient require consideration. In occupational therapy, physiotherapy and remedial gymnastics treatment may also be localised - with a greater choice of locality - or it may be general, which can be equally important. The differences in the techniques bring other differences, in approach to the patient, in the stages at which the treatments are given, in emphasis, and in the interests and biases of the personnel who apply them.

Differences in application

---

1. See pp.132 & 156 (quotation)

Variation in direction of patients' attention in treatment

In certain of the services the aims of treatment and the nature of the techniques employed quite properly direct the attention of the patient to his disability. The best therapist will, of course, do this in a constructive way only. This emphasis is necessary at times, - but certainly not always, - in orthoptics, physiotherapy and speech therapy. In remedial gymnastics it applies to "special" classes, such as foot classes, and hand classes, but less so in general classes. In occupational therapy it can also be said to apply if limited to the mind of the therapist, in that he or she must plan and supervise the treatment of the patient in relation to his disability, but, at the stage at which the patient is given occupational treatment his attention should, if possible, be directed towards achievement, and away from his disability.

The origin of each of the professions emphasises this point still further. Physiotherapy, which was, as has been seen, partly developed by nurses as an extension of their work within the hospital[1] is, on the whole, applied at a much earlier and more acute stage in the patient's illness (except in the case of the mentally ill), than are the other treatments. Occupational therapy, with its techniques and interests brought from outside the hospital[2] is a rather more social treatment, and concentration on work or recreation, rather than to disability, is one of the fundamental contributions it has to make to the recovery of the patient. Remedial gymnastics, with its threefold background,[3] varies in its emphasis and can only be kept in true perspective if the word "remedial" remains the key. Remedial gymnastics are applied in the later and more active stages of disability, often being used, as other forms of physiotherapy may be in earlier stages, concurrently with occupational therapy.

The usual order of progression in treatment

Speech therapy, coming as it did, again, from outside the

---

1. See p.76. 2. See p.64. 3. See pp. 4 & 83-4.

hospital and with a large part of its practice in the educational field,[1] stands aside from any particular order of progression in treatment. It has a somewhat separate function and may be applied in conjunction with other treatments or it may be used without them. Similarly, orthoptics[2] has a separate function, and may be applied for cases for which the first three have not been prescribed. There are, however, times when all or several are needed to effect the cure of the patient, and when collaboration between the various therapists is particularly essential.

Different professions require different personalities

The difference in the personalities and predispositions of the workers in each service are those emphasised by the requirements of the different professions.[3] They are quite marked, and are based on the interests and capacities[4] of the trainees, but in no way prevent co-operation and team-work.

Difference in apparatus and the effects of this

A further and somewhat obvious difference between the professions is the apparatus they use in treatment. The physiotherapists', like that of the remedial gymnasts and the orthoptists, consists of specially developed devices, which have, in the main, no other general use and are supplied to all departments. In occupational therapy equipment varies far more; its type depends somewhat on the type of disease or disability to be treated, and at times on the prevailing life and industry of the district. Apart from intellectual interests, which need perhaps little "equipment", few special "machines" are employed. Apparatus and tools used in ordinary everyday life or in hobbies are the main media of treatment. This is, on the whole, right, but there are times when a patient might receive treatment at an earlier stage in his illness or be better re-established, if more special devices were available. In almost every case where adaptation has been made, it is by the ingenuity of a particular occupational therapist,

---

1. See p.118, App.3(i) 2. See p. 71. 3. Appendix 3(c)
4. Although it must be admitted that they sometimes depend more on finance and the differences in costs for training.

and at present, few sources of production for useful prototypes have been arranged. This puts a severe handicap on the already over busy occupational therapist, and much - perhaps too much - depends on the predilections of the occupational therapist, the fad of the doctor or the fashion of the moment. The result is a serious unevenness in the standards of treatment offered by this service in its various departments, compared with the more uniform treatment given by the longer integrated or better equipped services.

Body - mind aspects again

An instance of some of the problems which arise when differences are discussed, is the claim by some that occupational therapy is a form of physical treatment, in that actual physical action and movement is usually involved. Occupational therapists assert, however, that it is also a form of psychological treatment, and that this important attribute must never be neglected. This argument is promptly countered by another - that all treatments have their psychological aspects. True, but not all therapists make use of the study of psychology, normal and abnormal, to the extent that the occupational therapist does, or should do. The

The value of psychology in treatment

speech therapist, in common with the occupational therapist makes greater use of psychology and psycho-pathology - but with different emphasis - than do those in the other three professions, although all are becoming increasingly conscious of their value. Orthoptists now include it in their course and since 1945[1] physiotherapy students have had a series of lectures on psychology included in their training, as a non-examination subject:[2] remedial gymnasts, if physiotherapists, have this same non-examination course, but if they have been trained in a physical training college their phychology has usually had an educational bias, useful, but somewhat limiting from the therapist's point of view. Others, trained

---

1. Compulsorily from 1947 only.
2. Considering the greater use of it by students in the other professions where it is stressed by examination it would probably be an advantage if they too were examined in it.

in short courses in remedial gymnastics, appear to have had a few lectures in elementary psychology, but their number and subject-matter seem hardly adequate. As the importance of this subject is being increasingly recognised by teaching and practising experts in all therapeutic fields, its more equal study by all these services would create a greater link between them, and would give the professional workers themselves a broader vision of the whole treatment landscape than they at present are able to get from their own rather highly hedged sections.

c) THEIR LINKS

"We should achieve an integrative view of the human organism: and this, I believe, must find its applications at the physiological, psychological and social levels of thought."

Sir R. Brain
"The Need for a Philosophy of Medicine."
The Lancet. 16.5.53. p.961.

Common aim but difference in emphasis

The main links between the professions lie in their common general aims, in their similar professional attitudes and ethics, and in the subjects which are common to their courses of training.[1] It should be noted, however, that, even in the case of these latter, there is from the earliest days of training a difference in emphasis, which some claim to be essential. This claim, if justified and persisted in, would certainly prevent the development of a common basic course.

Team-work

In all types of general hospitals or rehabilitation centres physiotherapists, occupational therapists and remedial gymnasts have a generally accepted relationship and work as a team, of which the doctor is "the undisputed leader".[2] So too - but perhaps less markedly at the moment - do the speech therapists and orthoptists belong to that team. When there is greater understanding of the possibilities of all the services on the part of the prescribing physicians, it is probably that even closer links will be forged between all the services. Their combined use has yet to be developed far more, especially in mental hospitals, and in others for long-stay cases.

The contribution which can be made by the

A natural corollary of these treatments, the value of which is not yet fully recognised, even by the doctors, is the contribution, again often combined, that can be made by them to

---

1. See Analysis facing p. 156.
2. Reports of the Committees on Medical Auxiliaries. London 1951. Minority Report I. p.126.

services in final assessment of the patient

diagnosis[1] and to the final assessment of the patient for his future placement. Physiological and psychological factors can be observed under controlled but not unduly set or formal conditions, providing useful information regarding habits, attitudes, aptitudes and capacities. This leads on to consideration of the exact service rendered by each form of therapy.

---

1. Although the therapists should not, themselves, diagnose.

d) THE EXACT SERVICE EACH RENDERS

"There is no harm in studying a special subject: the harm is in doing any kind of work with a narrow aim or a narrow mind."

Sir R. Brain
"The Need for a Philosophy of Medicine."
The Lancet. 16.5.53. p.961.

Differing interpretation of the various services

The differing opinions of medical and lay authorities and the varied interpretation of their several treatments given by the workers themselves make it difficult to define exactly the service given by each profession. The following descriptions are, however, those which seem generally accepted by members of the various professions, in fact the title of this section might perhaps more properly read, "The exact service each renders, or believes it should render, in the interests of the patient." It should be remembered however that each, while having precise methods and functions, is most effective when related to other services in a progressive health system.

Wide range of activities employed in occupational therapy

Occupational Therapy is the least easily definable service because it covers a wider range of treatment possibilities than most. This is no claim to greater importance: it is merely the result of the variety of methods which have to be employed to achieve its purpose. To borrow a description, it can be said that

"its real importance lies more in its social function - what it does for people - than in its physical structure - what it is in itself."[1]

Its aims

Its aims are to help in the re-establishment of the patient, by means of occupations prescribed with the needs of each particular patient in view. Treatment by occupation is not necessary for all patients, any more than is any other form of therapy. If

Discretion needed in

1. H. Tracy. "Social Aspects of South African Music." The Listener. 24.9.53. p.499.

Applying the treatment

indiscriminately applied it can undoubtedly become an extravagance and an indulgence.

Emphasis on treatment not occupation

It should be emphasised too that occupational therapy has, as its aim, treatment, not production or money making nor even vocational training. The latter may certainly be necessary corollaries of successful treatment but,

> "The patient is the product, not the article he makes. If the patient's condition is improved the work is good."[1]

This theory could lead to the easy acceptance of bad results. It is the responsibility of the occupational therapist to see that occupations are carefully chosen and to ensure reasonably good results wherever possible. This, in itself, requires training and experience.

Nor is occupational therapy a pastime. The abuse and misuse of the word "therapy", and of the term "occupational therapy", has in the last twenty years been as disheartening to its protagonists as was the debasement of massage at the end of the nineteenth century.[2] Almost every recreation or occupation given to a hospital patient or disabled person, even by a person with no therapeutic training, is nowadays dubbed "occupational therapy", or certainly, "therapy". The results have seriously undermined its true potentialities and have brought it censure and uninformed criticism.

Like the other services, occupational therapy is used for the treatment of people of all ages. It is applied in general and in specific terms:-

The scope of the treatment

> "A. GENERAL OCCUPATIONAL THERAPY aims at maintaining mental well-being and normal work habits ... It prevents invalidism."[3]

---

1. S. Tracey, Quoted by S. Licht. op.cit. p.14. Ref. M. Barrows. Maryland Psych. Quar. 6.58.1917.
2. See p.76.
3. The Possibilities of Occupational Therapy and the Functions of an Occupational Therapist. The Association of Occupational Therapists. London. 1950. p.2.

> "B. SPECIFIC OCCUPATIONAL THERAPY, while covering all the aims of General Treatment, is in addition directed towards the restoration of function ... for which more specific, scientifically analysed treatment is needed, both in the Physical and Psychological fields."[1]

And both should, in essence, be "diversional".[2]

For psychological cases

> "The purpose of the occupational therapist in treating cases of mental disorder is to provide means for the re-education of those functions of the mind which are either not functioning, or are functioning abnormally,"[3]

and to re-educate those patients who have regressed and are faulty in habits - all by means of recreational, social and work activities. The emphasis is on the modification of behaviour, and on establishment, or re-establishment, as far as is possible, of a normal and well-ordered life.

For physical cases

Occupational therapy for physical cases may cover strengthening of muscles, increasing range of movement in a joint, within the limitations of its proper control, or improving co-ordination; prevention of atrophy, assessment of capacity, and again progressive re-establishment of patients. For those with permanent disability, self-aids have been devised, and patients are trained in the use of these. Their scope ranges from the management of toilet and personal needs, to work in the kitchen or workshop, with special adaptations.

Careful prescription required

It will be realised that no patient should be given just any occupation, any more than he should be given just any medicine, in any sized dose. Nor, to continue the analogy, because a particular bottle of medicine is in stock, or the patient likes it, should it be used, or considered suitable, for every case. Yet much so-called occupational therapy is given with just this lack of discrimination. It is not, however, possible to apply exact

---

1. ibid.
2. i.e. Diverting the patient's attention from his disability to positive action.
3. Haworth & Macdonald. The Theory of Occupational Therapy. London 1946. p.10.

treatment in precise prescriptive 'doses'. Each application has to be tempered with the most careful consideration of the individual, his interests, capacities and needs, and must be fitted in to the total pattern of treatment aims.

The place of the occupational therapist in hospitals, homes, etc.

As will have been seen occupational therapy covers all forms of occupation. Occupational therapists should, therefore, under medical direction, be responsible for all therapeutic occupations for the disabled in homes or hospitals. It is anomalous to have occupational therapists, with training in various occupations, and what is more important, training in <u>therapy</u>, and then to employ separately painting 'therapists', music 'therapists', social 'therapists', or work 'therapists' with no therapeutic training.[1] How can there be any treatment pattern with such a diverse approach of non-therapists? Neither is occupational therapy a <u>craft</u> therapy, although it must be confessed that it is partly the occupational therapists' own tendency to resort to crafts, coupled with the controls in the last war and some trade opposition that have tended to label it so. The approach must be widened if occupational therapy is to fulfil its proper function, psychologically, economically and socially, but there must be a firm and binding thread of "therapy" running throughout.[2]

Payment of patients in occupational therapy

In occupational therapy there occurs the problem of payment. No patient is paid to take his medicine or to undergo physio or speech therapy. Why then pay for his occupational therapy? The ultimate goal may, and perhaps in most cases should be earning capacity, but treatment should lead to this and not be

---

1. Painters or musicians may be appointed to work in hospitals, but unless or until they have taken a training in therapy, their place is surely under the administrative aegis of the occupational therapist, not for their work speciality but for their patient responsibility. There is no doubt that these occupational specialists could be taught the 'therapy' and could and should then take their place on the staff as occupational therapists, rising, as anyone may, to senior and administrative posts.

2. Doctors, it is true, guide this, but few have time enough for supervision of untrained personnel. It was for this very reason that occupational <u>therapists</u> were first trained.

confused with it.[1] It may certainly be a part of the therapeutic programme that the patient, towards the end of treatment and still as a part of it, works and earns in some progressive way, but this should only be encouraged when he has reached a level at which it can be done without depressing comparisons with his former speed and capacities.[2]

Advisory extension of occupational therapy

Where disabled people are employed, be it at home, in workshops or hospitals, and where consideration of the factors of abilities, posture, fatigue, endurance etc., have to be taken into consideration, occupational therapists would appear to be the right people to share in the supervision and organisation of such work. This is an advisory extension of occupational therapy, and one which should be useful in contributing to the maintenance of health and employment.[3] The best form of re-establishment is undoubtedly when possible, to return the patient to the level of an earning and/or interested member of society. Here, indeed, is the "profound psychological justification"[4] for the treatment.

The contribution of orthoptics to diagnosis

Orthoptic treatment has been described as "the diagnosis and treatment of any extra-ocular muscle imbalance".[5] Under diagnosis comes assessment of the visual acuity of each eye, of the ability to fix with a squinting eye, of the type of squint and degree of

---

1. There are times when the economic aspect is not necessarily of prior importance, and this tends to be forgotten in the stress of economic pressure. "Many patients coming for rehabilitation have passed a somewhat drab and unimaginative life at the workbench or in a circumscribed factory environment. To be returned as soon as possible to an industrial workshop may be to lose a great opportunity, almost as though a man was to be returned to blinkers and harness efficiently to draw a cart. In an occupational therapy workshop" he may be introduced to "a socially creative experience", and this may be the very therapy he is needing. M.E.M. Hereford. "Occupational Therapy" letter to The Lancet. 30.12.50. In support of this, see Daniel Hack Tuke's comment in his Manual of Psychological Medicine (York 1879) "In considering this question ... we must change the terms and write exercise or occupation instead of labour, they are not indeed the same thing, and lack half the interest, the regularity and the benefit. (p.687).
2. i.e. a joiner unable to use his tools or a needlewoman her needle.
3. See pp. 38.129 & 151. 4. See p.1.
5. Lyle and Jackson. Practical Orthoptics in the Treatment of Squint, London 1953. p.2.

deviation, and of the grade of binocular vision. From this assessment some indication of the type of treatment necessary or possible can be given. Paralysed and pareised muscles have to be diagnosed and patients' symptoms, such as head or eye aches assessed, to discover their origin. Orthoptists, who work in the closest co-operation with opthalmologists help to determine the possibility of post-operative diplopia (double vision) for cases desiring operation for cosmetic reasons only, and they record recovery in cases of paralytic squint.

And to treatment

Therapeutically, orthoptics contribute to the improvement of visual acuity and capacity for fixation. Also, by occlusion of the better eye, certain degrees of squint can be reduced without operation, or, in some cases for which glasses have been worn, the control and exercises taught may result in their discontinuation. After operation, when eyes have been straightened, exercises are given to maintain the position and to help co-ordination. For the older child, the adolescent or the adult, a squint can be most distressing, and can affect the normal progress of their lives, and chances of employment or promotion. It is important to deal with the condition early if possible; children are now receiving treatment in school ophthalmic clinics. As will be appreciated, however, it is usually easier to get quick results from a keen and intelligent adult: children tend to become bored more quickly.

Orthoptic treatment has further been described as

> "essentially a process of mental training in which the higher centres of the brain and mind, which control the visual sensation and the workings of the ocular muscles, are trained to do their work efficiently."

This assertion is particularly important. The uninitiated may have a tendency to dismiss orthoptics as 'muscle exercises', but, as is true of all exercise

The body-mind connection again

> "The value of 'mental effort' on the part of the patient in carrying out such exercises cannot be over-stressed."[1]

---

1. Lyle and Jackson. op.cit. p.3.

As the patients are, then, asked to take an active part in their own treatment, it is important to approach each in such a way as to gain his understanding and co-operation.

> "The greater imagination in the French is partly the reason for the great success of Cantonnet,[1] and English practitioners must emulate him, if success equivalent to his is to be obtained"[2]

for - "since the introduction in this country of the methods practised by Cantonnet and Filliozat, it can be said with every truth that the training of squints is now a matter of a few months as against the previous time of some years."[3]

The therapeutic value of the services does not rest only in their particular skills

It is this thinking and imagination that is important, and to digress for a moment, it may be mentioned here that this same factor holds good for all the services. A note might even be addressed to busy doctors from all supplementary treatment services personnel that:- "Not all we do, or are here for, can be graphed on charts or written up in scientific terms. A part of our contribution to treatment is in our being people, with some special and essential skill, yes, but with extra time for the patient, with understanding, imagination, an awareness of his particular needs for re-establishment and with a capacity for 'putting over' to him how he can help himself[4]... In this, we must all have the same background of appreciation of social well-being, even if our skills differ."

Active co-operation of the patient needed

The treatment of strabismus (squint) is by no means the only function of orthoptic treatment. It is also used for such conditions as amblyopia, diplopia, suppression, convergence insufficiencies and heterophoria.[5] This last was the cause of much of the eye trouble in the R.A.F. during the Second World War.

Apart from the 'mental effort' which has to be stimulated in

---

1. See p. 72.
2. Lyle and Jackson. op.cit. p.114.
3. Ibid. p.63.
4. All in line with the treatment planned by his doctor.
5. See Appendix 2.

Mechanical duties used in treatment

the patient, the diagnosis and treatment are carried out with the aid of specially adapted mechanical apparatus,[1] i.e. the synoptophore, for testing and treating. Bar reading is also used, and is an exercise which can be done at home.

Contribution to assessment of patient

In observing the work of an orthoptic department, it was impressive to note the use made of orthoptic devices for assessment before and after treatment.[2] This is something of which some, at least, of the other treatment services might take greater note. One fact was clear, however. The ophthalmologists knew what they wanted from the orthoptist. This is not true of all medical specialists: if it were, it would undoubtedly lead to the wider use of assessment possibilities in other supplementary services.

Another impressive fact was the realistic way in which the orthoptist called for the co-operation of the patient and the patient's relatives - in the case of children, of their parents.

Co-operation of patients called upon

There seemed a happy co-ordination and continuity of treatment and interest. When it was deemed possible, simple apparatus was lent for use at home, and instruction given for home practice. Not only can this be helpful in the case of distant patients, but it is surely economically useful as well.

The psychological and cosmetic value of orthoptic treatment

The orthoptists, then, make a well-balanced contribution to therapeutic services. Treatment is limited to those who can and will benefit from it, but the psychological and cosmetic effect of orthoptic work is never forgotten or underestimated.

Limitations have to be accepted in all services

What has been said of this service may well be said of all supplementary medical treatment services, and is true, too, of other therapeutic measures:-

---

1. See Appendix 2.
2. "When training" (here meaning treatment) "has been under way for some time, the case is presented to the surgeon neatly calibrated as regards vision, angle of squint, degree of fusion, convergence and adduction, and often a request for an operation before further treatment." R.D. Weedon Butler 'The Relation between the Ophthalmic Surgeon and the Orthoptist'. British Orthoptic Journal. vol.4. 1947. p.105.

> "The greatest disappointment in orthoptics comes from too much ambition and a misunderstanding of the limitations of practice ... One of the greatest lessons we have learnt is the influence on treatment of the desire to be cured."[1]

Physiotherapy

Physiotherapy includes remedial exercises

In this discussion remedial exercises will be included, as they form an integral part of what is termed "physiotherapy". Both, like the other services, aim at the correction of dysfunction and restoration of function to as near normal as possible. They contribute to the re-education and strengthening of muscles, and to their control, or, when power has been completely lost, to the development of compensatory movements. They are used for posture training, to maintain general mobility in cases undergoing treatment involving some immobilization, they are employed prophylactically, for the relief of pain, and for promotion of healing. Ante and post natal conditions are also treated by physiotherapy and remedial gymnastics.

Treatments included in physiotherapy

Most of the physiotherapists' techniques have already been mentioned.[2] Many of these techniques, as has been shown, have been employed from earliest history, and have, in turn, been the fashion and indulgence of the wealthy, and the pocket-fillers of the quack. Some are even now used other than medically, i.e. for improvement of physical condition, for preservation of health, for beauty treatment, etc. Their medical use has, however, persisted. As the physiotherapy of today they are definite and prescribed treatments, often, but certainly not universally, under the aegis of the more recently developed physical medicine specialist.[3]

Passive & active treatment

Physiotherapy may be passive or active. The emphasis, which has been shifting steadily in the last several decades,[4] is mainly

---

1. G.H. Giles. op.cit. London 1938. p.123.
2. Viz. massage, hydrotherapy, electro-therapy, remedial exercises and actino-therapy, manipulations and traction.
3. There is not complete agreement in the medical field on this.
4. See pp.78-9.

on the latter. This change has been hard to achieve,[1] for, as a physical medicine specialist very truly says:-

> "The lay mind finds it difficult to accept anything that the patient has to do himself, as treatment; thus, on asking a patient what treatment he has been having ... all too often one hears mention only of various passive procedures, such as massage, electrotherapy, heat, etc., and the active exercises which constitute the keystone of successful treatment in the majority of patients in that department, one may only hear on further questioning."[2]

Full description of massage

Massage is too well-known to require description, but it is not always realised that this does not represent mere rubbing.[3] Massage is primarily used to increase or improve circulation - and is applied in various conditions of adhesions, contractures, oedema, for treatment of strains, fibrositis, skin grafts, varicose ulcers, etc. The physiotherapist has, in addition, to study methods of encouraging relaxation.

Electro-therapy

Electrotherapy is now a part of the main 3-year training course for physiotherapy and includes the use of highly specialised forms of treatment[4] which have been proved valuable in themselves or as adjuncts to other forms of physio- and occupational therapy. They are used in appropriate and varying degrees for relieving pain and muscle spasm, improving circulation and lessening congestion, for stiffness or scarring, for the improvement of skin conditions and for the promotion of healing.

---

1. And is a problem in occupational therapy, for the same reason, (see succeeding quotation).

2. A. Zinovieff. "The Relationship of Physiotherapy to Occupational Therapy in Rehabilitation". Can. Med. Assn. Journal 68. 1953. pp.468-71.

3. The techniques include "stroking" - superficial and deep; "effleurage", or centripetal stroking; "petrissage", or picking up, kneading and all squeezing manipulations; "friction" - now indicating small manipulations with pressure; "tapôtment" or percussion, i.e. hacking, clapping, pounding, beating and "shaking" and "vibration". Ref. Syllabus of the Chartered Society of Physiotherapy.
Compare these with the terms of over 100 years ago:-
"Friction or rubbing ... operating immediately on the surface"-
"Shampooing, as practised by the Indians"-
"Thumbing ... a more violent and coarser mode of shampooing"-
"Puniting ... percussion ... kneading".
J. Shaw. op.cit. London (1823)

4. Galvanism - Faradism (terms now covered by "electric stimulation"). Long and short wave diathermy and the use of Infra-red and Ultra-violet rays, etc. ibid.

Remedial exercises

The third section of the main qualification covers training in the use of remedial exercises, free, assisted, and resisted[1] and of posture training. Slings and springs are employed, at times, to achieve the desired results.

> "Exercises form the major part of any day's work, they are not "P.T." but rather the re-education of function by accurate and careful muscle training. The underlying principle is that before a patient can perform a movement he must be able to feel it. In order to restore function the component parts of any activity must be analysed and separate exercises worked out for each, only when each individual movement is restored can the automatic cerebral pattern be regained."[2]

The work of a physiotherapist may extend to the use of traction and manipulation, or to group treatment using free exercises, apparatus work and games.

Hydro-therapy

Although a post-graduate addition to the training, hydro-therapy may well be mentioned here. The term indicates treatment by immersion in peat, mud or paraffin wax baths,[3] or by hot air and vapour baths or in a warm pool. There are, in addition, douches and partial baths, or wet or mud packs.

The order of the use of the treat-ment services

Physiotherapy is - in the progression of treatment - usually the fore-runner of occupational therapy, and remedial gymnastics its co-partner or sequel. There is, however, no set order except that governed by the actual needs of the patient. The treatments may be concurrent and complementary or one may be needed and another not required.

In muscle re-education it is claimed that physiotherapy can be used to treat isolated, as well as groups of, muscles, while, by its very nature, occupational therapy deals mainly with muscle groups. Physiotherapy is usually given in the form of concentrated treatment over short periods: occupational therapy can, perhaps, be

---

1. Terms which apply in occupational therapy as well.
2. T. Wareham. (Supt. Physiotherapist. St. Bartholomew's Hospital) Nursing Mirror. 28.8.1953.
3. The use of wax baths may be taught in the general syllabus.

termed a more general treatment and is, in many cases, given over longer periods. To continue the contrast, with the intention of indicating the distinction of their spheres,

> "Physiotherapy ... achieves the re-education of walking, running and jumping, etc. more effectively."[1]

by means of all methods, culminating in graded exercises.

In spite of close observation of the treatment given by physiotherapists, it is perhaps, not possible to indicate more clearly and precisely the work they do. Like all personnel in the treatment services, they have a specialist skill, but, as with the others, their exact service cannot be learned from books, nor even from observation only. Skill is a human attribute, carrying with it the perception - (which, psychologically, can be termed "knowing with understanding") - the feeling - tactile and emotional, and the experience that go together to make a basis for successful human relationships, and for expert and successful treatment. Teaching and exposition can lay foundations, but only example and experience can achieve results in this and all the services. The physiotherapists have had the longest time of established professionalism in which to develop these essentials, and today they are able to offer an exact and acceptable service, which, although dependent on certain mechanical aids, has a value and effectiveness far beyond mechanical possibilities.

No treatment can be learned solely from books

Remedial Gymnastics. These have, of necessity, been discussed in the description of physiotherapy. Their aims are:-

> "To develop correct posture, control precision, rhythm and strength and so to assist the restoration of maximal function in the sick or injured."[2]

The aims of remedial gymnastics

They are divided into passive and active movements, the former being subdivided into relaxed passive movement and forced or manipulative passive movement. Active movement is defined as

Active & passive movement

---

1. A. Zinovieff. op.cit. p.470.
2. Notes and Syllabus of Training in Exercises for the Examinations of the Chartered Society of Physiotherapy.

"A movement produced by the patient by voluntary muscle activity",[1]

and is further classified as assisted, resisted or free. In the sphere of active movements there are, in addition, exercises with apparatus, both large and small, and games with special remedial aims.[2] Much of this treatment was based on Swedish methods but, with increased physiological knowledge, there have been deletions and modifications.

Although training is, in fact, not the subject of this section, some reference to it is necessary in this particular case, to help to clarify the exact service rendered by what is now termed the Remedial Gymnast.

There are, firstly, those trained within the largest body of physical remedial experts, the Chartered Society of Physiotherapy.

Physiotherapists give exercise to a large number of patients

Training in remedial exercises is, for them, a part of the whole course,[3] and in the treatment sphere - much of it in the National Health Service - every physiotherapist gives some form of exercise to the majority of the patients treated in any day or week.[4] For some remedial exercises constitute the whole of the treatment.

In addition to the remedial gymnast trained under the

So do the remedial trained physical educationalists

Chartered Society, there are those who have received training under one of the other training organizations[5] or at one of the physical education colleges. In the case of the latter "remedials" were at one time included: now they can be taken as a post-graduate course.[6] These candidates have, in their original training, a highly

---

1. ibid.
2. Much of the rehabilitation of the dockers at the Seamen's Hospital, Greenwich, is achieved by this method, a claim being made that there is little need to develop the finer dexterity or skill to which occupational therapy would contribute. It is also claimed that the quick distraction from disability achieved by this method is particularly appropriate.
3. T. Wareham. "The Nurse in relation to the Physiotherapy Dept." Nursing Mirror. 28.8.53.
4. ibid.
5. See p. 79.
6. See p. 84.

specialised course in anatomy, physiology, theory of movement,[1] etc. It is not a little surprising, then, to find them as has already been said required by the Remedial Gymnasts Association to do a further 6 months' course in remedial work, while Service trained physical training instructors - who have a shorter training of far less intensity - are not required to take longer than an academic year - i.e. nine months. On demobilisation, after the last war, many of these latter were, in fact, given only a six months' course. Does this variation in background and training affect the quality of the service offered, or has the position been only temporarily distorted by the demobilisation of a number of service physical training instructors in the years immediately after the war? It must be remembered that many of them had, in war time, worked in hospitals with ambulant convalescent cases. Service patients had then, for administrative reasons, to be kept in hospital far longer than they would be in peace-time. This altered the emphasis in the work of all the treatment services. Active and ambulant patients, who would now be discharged, or kept on as out-patients, had to receive continued treatment throughout a reasonably well organised day, and had to be rehabilitated, where possible, for return to their units. In this the services of the physical training instructors were invaluable. They became interested in the work and wished to continue with it after discharge from the forces, and were given these brief courses to enable them to do so. Their chief sphere of activity would now seem to be in the industrial rehabilitation centres[2] - again with the more active and ambulant patients, while it would appear that the more specialised treatment is, and should be, in the hands of the more highly skilled therapist with the longer and more detailed training. It hardly

Service physical training instructors

Long hospitalization for Service patients

Treatment therefore different in war-time

Variation in training and

1. Ref. University of London. Inst. of Education. Regulations & Syllabuses for the Teacher's Certificate Examination. 1953/4. pp.46-48.

2. Ref. Annual Report of the Ministry of Labour and National Service. 1952. pp.84-5.

Appointment discussed

seems possible to compare the work in the two fields, although, in fact they come under the same heading. Is this not one of a number of anomalies occurring within and without the National Health Services?[1]

Speech Therapy. "Speech is the outward manifestation of thought and the chief instrument of communication between human beings."[2] Speech Therapy, then, could almost be termed 'communication therapy' and this title would, in fact, do the service far more justice than its present one. Few realise that speech therapy is not comprised merely of teaching correct enunciation to those with speech disabilities.[3] It is a two-way service, helping the patient to understand what is going on outside himself, and helping him to correlate and express his own thoughts. The real essence of the therapy is to help the patient to establish, or re-establish his contacts with his fellows, - to elimimate the frustration of - in C. Aurelianus' telling words, - being unable "to give utterance[4] to the things that are in his mind. This utterance is not verbal only. Distortion and brain damage may prevent understanding of the spoken and written word, and this distortion or damage may also result in confusion of thought, loss of memory or some other sequel of organic or functional origin. The condition of a patient deprived of speech has been described as one of "emotional stress and bewilderment".[5] There is, too a social problem. The patient's family may be impatient with him when he appears to be able to understand and express certain things, while others completely elude him.

Speech Therapy covers "communication"

Effects of deprivation of speech

---

1. For others see pp. 128 & 136.
2. C.P. Ryan. 'Improving the Speech of the Stammerer'. Report of Speech Therapy Conference. 1948. p.140.
3. An interpretation frequently given for it. In "Speech Training" people with normal speech abilities are taught improved speech. It is true, however, that "Speech Training given in the very early stages of speech development lessens the possibility of the need for Speech Therapy in later years." Carrick. Report of Speech Therapy Conference. 1945. p.27.
4. See p. 26.
5. J.E. Dakin. Report of Speech Therapy Conference. 1948. p.48.

The causes of this, and the best methods to help him, have to be explained, if possible, to both. Is it claiming too much, then, to suggest that speech therapy goes further than the term implies? It endeavours to help to resolve the distortion or disability by the most painstaking efforts to arouse memories, develop associations, increase insight and to re-establish old habits or patterns, or to train in new. There may be disabilities which co-exist with speech problems, and speech therapists need to have the closest liaison with the personnel in the services treating these other residual conditions.

Application of speech therapy in psychogenic conditions

Certain cases of psychogenic disturbance fall into the province of the speech therapist, and these may be given treatment in Hospital Departments, School and/or Child Guidance Clinics. Of these the majority are stammerers, and an interesting point is made in relation to them:

> "Sometimes there is the danger of the stammerer being treated by too many people at once."[1]

Any tendency to expect the speech therapist to deal with the symptom only is also deplored. These are dangers in all forms of therapy. There is no doubt that properly applied treatment should take into account symptomatic problems, but, as the more mature and skilled workers in all the services would agree, too much concentration on the symptom and too little on the constitution, behaviour, general pathological condition and, finally, on the re-establishment of the patient limits seriously the use of any or all of the therapies.

The conditions which come within the scope of the speech therapist include the congenital and neurological conditions, cases of aphasis, and of cerebral palsy, where "failure of the development of speech is part of the general disability."[2]

Failure of development of speech

Loss of

There are also the cases of head injury resulting in loss of

---

1. J.L. Wilkins. Report of Speech Therapy Conference. 1948. p.7.
2. ibid. p.5.

Function of speech

Non-functions of organs of speech

function of speech, and there are cases of the non-function of the organs of speech, due to acquired disease or injury or congenital malformation. In the case of the former, the frustration of a laryngectomised patient,[1] before being taught oesophageal speech, is again a social problem, and in the case of the latter, the frustration of a person with a cleft palate is manifestly lessened as he is able to make himself increasingly understood. For these latter cases, there is the closest co-operation between the speech therapist and the surgeon and orthodontist. Speech therapy, like the other services, was able to make a vital contribution to the treatment of cases of war-injury, particularly in the head injury and plastic units.

The contribution of speech therapy to rehabilitation in war

A difference that has been noted between this and the other services under discussion has been the large part that speech therapy plays in the school health service.[2] In discussing certain cases falling into this special category, a problem which is relevant to all the services is brought out -

> "Children of low mentality or retarded development tend to suffer from speech defects. Many of these find their way into speech clinics and on the whole the task of teaching them is slow and unrewarding. There are differences of opinion as to whether the speech therapist should spend time and energy on those who are dull through lack of ability."[3]

The problem of the chronic or backward case

This question could apply as well to adult and/or aged, and to chronic cases referred for physio- or occupational therapy, and to some who are prescribed orthoptic treatment. The solution "that ... therapy should at least be tried in most cases"[4] because improvement in the particular disability has often been "accompanied by a marked improvement in every sphere"[5] suggests the right answer. Any case for whom treatment can relieve home or nursing problems, however hopeless it may appear, should, if possible, receive

---

1. Among whom suicide rates are high.
2. See p. 97.
3. J.L. Wilkins. op.cit. p.6.
4. ibid.
5. ibid.

attention, at least for long enough for it to be proved that the treatment is humanly, practically and economically unsatisfactory.

Speech therapy for certain cases of deafness

Where deafness has occurred after speech was acquired, speech therapy may help, particularly in the adjustment of voice production and articulation. It may also relieve the strain of the disability.

The techniques used in speech therapy are diverse, and their use is based on the fundamental importance of teaching the patient to help himself. They include breathing exercises and relaxation, phonic drill, muscular exercises for the organs of speech and voice, and writing exercises, exercises in association of ideas and in narrating and conversing, and in various forms of self-expression, some for the purposes of ear-training and/or pattern development. A variety of activities may be used to stimulate the patient, covering as wide a range as drawing, painting, modelling, puppetry, choral speaking, mime, dramatic work[1] and the use of visual aids such as slides or films. The problem is not, however, one of exercise or techniques only: it is far more of an aesthetic problem. The patient may be unable to spell, write or enunciate what he feels or wishes to express. The techniques are, in a sense, subordinate to the relationship or rapport which has to be created between patient and therapist, and it is ultimately through this last that therapy is achieved.

Link with homes of patients

It appears, too, that the speech therapist has in the case of children been able to develop a parent-treatment link like that of the orthoptist,[2] giving instruction for continuation of treatment at home. This, provided it adds no stress to the patient - in which case it would, presumably, not be used - is a very practical extension of the time of a busy therapist. Similarly, co-operation of enlightened teachers can prove an asset to the patient, if - but only if, - they can give unobtrusive help, and if they do not claim

1. Note the close link between these activities and those of occupational and, to some degree, physio-therapy.

2. See p. 109.

to practise the more specialised art of speech therapy itself.

If

> "it is for work, and ability to work that the patients ask and that, when it can be provided, proves the most effective form of therapy of all,"[1]

and if communication with their fellows is a corollary of satisfactory work, or a necessity for it, a therapy which enhances the possibility of this communication for those who have wholly or partially lost it has a vital contribution to make to the health and happiness of the nation.

---

1. J. Dakin. Report of Speech Therapy Conference 1948. p.50.

e) THE PLACE OF THE SUPPLEMENTARY MEDICAL TREATMENT SERVICES IN THE HEALTH SERVICES

> "The nature and causes of health are as yet but imperfectly comprehended. Certainly health is more than biological efficiency, much more than the smooth working of interdependent component parts of a machine; it is partly a thing of the spirit of man, a by-product of the exercise of human aspiration and of the satisfaction of attempting or of achieving the worth-while in life."
>
> F.A. Crew.
> "Medicine and Social Policy"
> British Medical Journal.
> 25.5.53. p.1126.

It is to this "thing of the spirit of man" that those working in health services are endeavouring to make their contribution, and from the foregoing evidence there can be little doubt that the National Health Service itself would not be complete without the inclusion of the supplementary medical treatment services. When the Health Service came into being these treatment entities, already a part of medical services, became absorbed - although not entirely - almost without distinction, as parts of a whole. It is necessary to discuss, then, as far as is possible within the confines of this thesis, the degree to which they are or should be used, in all forms of health service, and what are or should be the governing factors in this.

The sphere of the services in the N.H.S. has yet to be defined

Improved medical & administrative understanding needed

One of the first essentials for the better establishment of the services in their right spheres is improved medical and administrative understanding. At present arbitrary decisions or demands tend to be made without discussion[1] with those to whom they relate although the position is undoubtedly improving. The professions need the understanding and support of the informed doctor, under

---

1. It hardly seems right that these professions should have to argue their case with lay administrators or secretaries or with lay committees whose function is not, surely, to decide the place and value of the treatment services.

whose leadership they work. On him should be the onus of demanding the treatment he requires for his patients. The accent must, however, be on "informed". It is lamentable how few know enough about the exact functions of these services.[1] The doctor leading the team needs, too, to be one keen on "wellness" rather than on illness, for all these services have as their key-note an emphasis on "do" rather than "be done for". This is a valuable economic factor, as well as a vital psychological one.

Financial considerations

The cost of the Health Service is now, over six years after its inception, a fact of much consideration and anxiety.[2] This fact cannot be dismissed, but there seems difficulty in reconciling it with the best aims and intentions of the Service. There is little doubt that expenditure on any of the services within the Health Service, and therefore on the supplementary medical treatment services, must be related realistically to their most valuable use. An assessment of the right relationships, place and level of these services in the Health Service could, in itself, form the theme of an extensive study. Only a few points can, however, be noted here. Speaking of man-power, the present Minister of Health has said in Parliament:-

Savings must be related to efficiency and man-power

> "We cannot possibly control expenditure in the Health Service field unless we control that ... we want a national man-power policy in the hospital field."[3]

This statement postulates a vital consideration.[4] In regard to a

---

1. It is true that there is little time for extra study in the full medical curriculum but until brief, clear definitions of their treatment possibilities are given to all medical students by experts in each field, this lack of their proper recognition and use of available services will persist.

2. The cost is already two-and-a-half times as much as the estimates given in the Beveridge Report in 1944, and twice that of the Civil Estimates for 1948/49. Ref. Ffrancon Roberts. The Cost of Health. London 1952. p.11 and Appendix p.195.

3. Hansard. Vol.515. No.111. 18.5.53. London. pp.1731/2.

4. Salaries and wages account for two-thirds of the cost of hospitals, and hospitals account for nearly two-thirds of the cost of the National Health scheme. op.cit. Ref. The Lancet. 23.5.53. p.1171. Report on Debate on Civil Estimates. House of Commons. 18.5.53.

'man-power policy' how is the value of the man-power of particular services to be assessed? In any case, if

> "The health of its members is an economic asset of vital importance to the community, and self-interest no less than fellow feeling demands that it should be protected,"[1]

dare anyone suggest that there be any limitation of effort or money, especially when -

> "the amount spent on the health service is little over one-third of the amount spent on tobacco and drink, and is over £100 million less than the estimated amount spent on gambling"?[2]

Too much isolationism within the whole service

At present it is only too true, however, that

> "The care of the patient is isolated into compartments with a poor system of intercommunication."[3]

and, it might be added, co-operation

> - "A long overdue reform is to bring those looking after the patient closer together."[4]

The attitude towards urgency for economy as well as towards urgency for treatment must be realistic, which means surely this. It is right and necessary to press for a certain level of expenditure, both of energy and of money, on the supplementary medical treatment service, after careful assessment and after interdepartmental discussion among all experts involved. There is obviously a need, too, for the acceptance of certain - "boundaries to professional activity",[5] but these boundaries would be more flexible, better understood and more acceptable, if those confined by them were asked for their views and co-operation in setting them - a not unreasonable request if they are experts in their own fields.

Acceptance of certain boundaries necessary

Interdepartmental discussion necessary

In showing some concern for the professional problems of the services and their relation to the Health Service, it may be well

---

1. R. Sand. op.cit. p.62.
2. L. Farrer Brown. The Almoner. April 1953. p.13.
3. J.H.F. Brotherston. Speech at the Annual Conference of the British Sociological Association. The Lancet. 4.4.1953. p.693.
4. ibid. p.693.
5. L. Farrer Brown. The Almoner. p.12.

to remember a cogent point made by Sir James Stirling Ross in his account of the National Health Service in Great Britain.

The N.H.S. a plan, not a professional service, but served by professionals

> "The Service was designed as an enabling policy and plan, with a national mandate and national resources whereby Medicine would be better equipped for nation-wide obligations. It is not the professional practice of medicine or nursing or public health, and the expression should not imply this. But it is knit up with these professional activities: it affects them profoundly and is itself largely determined by them."[1]

Mr. Farrer Brown emphasises this still further in relation more particularly to the salaried professions:-

> "The salaried professional person may in a sense have two different clients at the same time - the one paying the salary and the one being attended to professionally. The relationship of trust is different to each."[2]

But, he adds -

> "There need be no conflict in ... duties to the two clients."[3]

If these points were better understood by all concerned for the success of the Health Services there might be far happier results. At present there is fear on both sides; fear on the part of authorities that the workers will exert an un-understanding and demanding pressure; fear on the part of the service personnel that there will be exploitation, lack of consideration or active depression or suppression from the administrative side, fear on the part of the doctors, that they will lose some of their domination and control. Need this be? The only way to banish fear is to prove it false or remove the cause. Has this been tried, constructively - not arbitrarily?

Constructive attitude to

One impression gained in visiting departments of all the services, and one which might possibly not be credited to them,

---

1. J.S. Ross. The National Health Service in Great Britain. London 1952. p.viii. And note Sir A. Daley's comment: "The objectives of the service are primarily to maintain the health of the community, to prevent disease and to restore good health as soon as possible to those who fall ill." Second Croonian Lecture. B.M. Journal. 1.8.53. p.243.
2. L. Farrer Brown. The Almoner. p.5.
3. ibid.

the problems of the N.H.S. which exists in the treatment services

was the concern expressed for the limitation of each service to those who really needed it, thus achieving, it was hoped, better treatment for the patients for whom it was imperative. It was also suggested that, within certain agreed limits, a less expert service might be adequate for certain patients,[1] and this led on to the statement that properly negotiated and properly controlled "dilution" was, in certain cases, eminently reasonable and obviously economically advisable. The governing factor in gaining acceptance of this last policy, however, would need to be the assurance of the loyalty of the employer, and at the risk of giving offence, it is only true to say that this has too often been sadly lacking. Employers have been prepared to undercut, vary, or argue over terms of employment, or to haggle over interpretation of rules, and have failed to seek a mutual definition of spheres or a solution of problems. Why should they claim to treat the professional worker in this way? If controls and economies are to be called for, if spheres have to be defined, is there any reason to doubt the willingness of the supplementary medical treatment service personnel to co-operate? If co-operation were genuinely sought it is not unlikely that the organisers and employers in the health services would find a vast fund of realistic thinking, constructive suggestions and ready co-operation for meeting the problems of the situation. There will need, however, to be mutual consultation and a respect for fair dealing on both sides. Until loyalty and trust is reciprocal it is difficult to see any possibility of improvement in the present position.

Loyalty of employers needed

The N.H.S. a 'nationalised industry'

The National Health Service has been described as "one of our country's largest nationalised industries".[2] If therefore the analogy of an "industry" is pursued, the best qualities of management and service are wanted. Treatment should not involve the less welcome features of trade pressure. In this case, the product is

---

1. See p.192. "Dilution" or "Re-inforcement".
2. L. Farrer Brown. op.cit. p.3.

the improved patient. If production fails, output suffers. Until and unless the Health Service becomes a "good health" service, with an "ill-health" service as only a part of its function, and until all in it are working together economically, realistically and reasonably altruistically (a quality fast being lost and certainly counted as foolishness), little of the declared aims of the Health Service or to the World Health Charter will be achieved.

The effect of the character of the N.H.S. on the treatment services

Reference should be made to the functions, as far as they are discernable, of the treatment services within the Health Service. What, however, is the exact character which the health services are to develop? Should the hospital bed "recede as a therapeutic weapon"[1] and the emphasis be transferred to out-patient treatment? Decisions on these points would vitally affect the place and use of the supplementary medical treatment services and they themselves would be influenced by the thoroughness with which any aspect or scheme is "underpinned". Again, where does the general practitioner fit in to the sequence of organised treatment, in relation particularly to the services under discussion?

Prevention as well as cure

As has been shown, all the services already contribute to prevention as well as cure, and could alter the ratio of this in accordance with any agreed scheme. They could give treatment to out-patients to an increasing degree, in special departments, (preferably located near to one another), or in day hospitals or centres if, - but only if - home conditions were such that it was more possible for many patients still to live there. Home adaptations and home help would be needed to an increasing degree, meals would have to be provided, treatment appointments made and kept, and transport better organised.

It is unnecessary to discuss technical details of the professions here because the service rendered by each has already been described. That the services need to be used with dis-

---

1. Professor Vines. Speech at the Annual Conference of Hospital Administrators. The Lancet. 16.5.53. p.994.

The ratio of treatment service workers in hospitals

crimination has also been shown. The question of relative numbers to be employed in each service cannot, however, be considered in any exact ratio. It is clear that in most general hospitals physiotherapists and occupational therapists are likely to be employed in rather larger numbers than orthoptists, remedial gymnasts and speech therapists. It is possible that the first-named will be in the majority; they certainly are now,[1] but whether this preponderance will persist will depend on the cases to be treated and the calls of the medical staff. In some out-patient and homebound work the position of the two first mentioned may be reversed. These variations in numbers in no way lessen the value of one or other service - certain medicines or drugs may be called for in larger quantities, but this does not enhance their value above others.

All supplementary treatment personnel are, in most hospitals, needed in lesser numbers than are nurses, although in mental hospitals the ratio of the former to the latter might well be increased and might relieve, in some measure, the shortage of staff. In no sphere, however, should there be competition for place or numbers. The emphasis should be on the quality and usefulness of the services and the degree to which they can, fairly and economically, be used for those who need them.

The Health Centres of the future as auxiliary medical treatment centres

As the much talked-of Health Centres come into being, they might be admirable places from which to run a rehabilitation team,[2] which could offer treatment at the centres themselves and supply a domiciliary service connected with them. The health services of the local authorities might also include a member, or members, of each

---

1. Ref. Reports of the Committees on Medical Auxiliaries. London 1951. Appendix I. p.141, and Report of the Ministry of Health. Part I. for year ended 31.12.52. Appendix III. Part 2. p.139.

2. See the "germ" of this in the account of Scotland's first Health Centre - the "combined services" wing. The Lancet. 23.5.53. p.1040. The Nuffield Provincial Hospitals Trust is to provide 3 health centres in Harlow New Town Essex. Ref. Daily Telegraph. 7.5.54.

of the supplementary services, but only for those cases where there is obvious and prescribed need. There is at present a confusion of method and responsibility in various local authority schemes which is seriously detrimental to the proper working of any service This urgently needs clarification.[1]

The work of the supplementary treatment services should be carried further than the hospital environs and the provinces of the Ministry of Health. Their personnel should be attached, as needed, to any organisation caring for the disabled. They should also be used to bridge the gap between the rehabilitation schemes of the Health Service and those of the Ministry of Labour. Only those who have worked as members of these treatment services can know the frustration created by this lack of co-ordination and liaison between the schemes of the various Government Departments.[2] If the experience of these treatment personnel were used in the Ministry of Labour Rehabilitation Units or - in the case of occupational therapists particularly - by the Disabled Persons Employment Corporation in their Remploy Factories or Homebound schemes, the value of the work done in them could be enhanced, and some of the weight of the work of the hospitals' out-patient departments be lightened. It is surprising that the existence of trained experts is ignored when, with a little expansion of their training or alteration of emphasis

Lack of co-operation between statutory bodies & their services

Trained experts should be

1. Ref. Evidence given by Sir G. Peto to Committee of enquiry into questions affecting disabled persons. 14.8.53.

2. "The many government departments responsible for the disabled have no proper liaison between them. The Ministries of Health, Labour, Pensions and National Insurance, the National Assistance Board and Local Authorities are responsible for different parts in the plan for rehabilitation, training and resettlement ... but there is often doubt as to where the responsibility of one ... ends and another begins. Memo. of Evidence submitted to the Govt. Cmttee. (Piercy Cmttee) for the Rehabilitation of the Disabled - by the Association of Occupational Therapists. Sept. 1953. p.10.
"The divorce between treatment of the tuberculous and their rehabilitation is another example of the difficulties which arise when artificial fences are erected in the course of what should be one process, under the same administration - namely, the restoration of the sick person to the working community." And again - "The School Health Service is outside the National Health Service" - Sir A. Daley. "The Place of the Hospital in a National Health Service" First Croonian Lecture to Royal College of Physicians. Br. Medical Journal. 25.7.53. pp.165 & 169.

used in all treatment spheres

in it they could contribute much to a carefully planned and linked scheme. Why continue the trial and error system of employing personnel not trained in rehabilitation when insight and scientific knowledge are available? If the disablement resettlement officer can go into the Hospital, why cannot the right kind of occupational therapist, physiotherapist or other supplementary medical treatment expert go more extensively into the Ministry of Labour sphere?[1]

Prevention and treatment in industry

There would seem a case, too, for advisory treatment experts from these professions to be attached to factories, or for those employed in local hospitals or other rehabilitation schemes to be "preventive consultants" to industries or large business concerns in the area, advising, at the request of the doctor, on problems directly related to their special knowledge and skill and particularly related to their patients. In some cases treatment could be given (as is the case with physiotherapy) in the medical units of the concerns themselves, thereby relieving the hospital out-patient department and offering a useful form of time-saving. There is also an argument for the economic value of evening treatment clinics, in respect of duty at which the treatment personnel could have compensatory time off. This would relieve day pressure and extend the use of expensive apparatus, besides being a boon to the busy worker. While discussing time, it is not unreasonable to note that the nurses feel that they,

Treatment in "closed periods" in hospitals

> "being the only hospital workers giving a twenty-four hour service ... inevitably have additional burdens at week-ends and at other times when other departments are closed."[2]

Although many of the supplementary medical treatment personnel may not agree, there seems a case, in certain of the services at least, for a skeleton staff to be on duty at these "closed" periods for those patients who would benefit by continuous treat-

---

1. They seldom do and yet they are needed there.
2. "The Right Use of Nursing Power". II. The Nursing Mirror. 29.5.53. p.572.

ment. This could apply in all hospitals, but would be particularly important in mental cases.

The public needs to be educated in the use of available services

There are several further points of importance relating to successful use of these treatment services. The public needs to be educated in the value of them and in their active emphasis. This is vital for their success, for, as Dr. F.A.E. Crew, Professor of Public Health and Social Medicine in the University of Edinburgh truly says, in speaking of "health promotive" services:-

> "only when people ardently desire health can the benefits that medicine has to offer be enjoyed to the best advantage: only then can Government translate this desire into project and scheme."[1]

and only if the patient understands the purpose of the treatment can he be expected to co-operate. The term "the best advantage" leads on to the second point - one which is a declared principle in the constitution of the World Health Organisation, namely that:-

> "The enjoyment of the highest attainable standard of health is of the fundamental rights of every human being ..."[2]

Dr. Rene Sands defines this as "the maximum health" that "a patient's organism permits".[3] This should be regarded not as a vague phrase, but as an operative and co-operative challenge. Even then it must be realistic.[4] There may, for example, be limitations in a patient's condition which he must be helped to understand and accept before he can be rehabilitated. Many of the pleas for rehabilitation of persons with severe disabilities mistakenly call for impossibilities of earning, or for achievement totally beyond them. More damage is done to these patients by

Proper limitations of treatment

---

1. F.A.E. Crew. British Medical Journal. 23.5.53. p.1124. He says -
   "The education of the general public concerning the nature and causes of health" - (Note - not 'of disease') - "and concerning also its personal and social value, is undoubtedly a pre-requisite to all successful endeavour by Governmental agencies and by the medical profession towards the augmentation of public health". "Medicine and Social Policy".
2. F. Grundy. Preventive Medicine and Public Health. Luton 1953. p.276.
3. R. Sands. op.cit. p.62.
4. J.S. Clarke. Disabled Citizens. London 1931. pp.17-18.

raising false hopes than by helping them to some recreational interest, within their capacities,[1] to say nothing of the waste of public money. If one is still thinking in terms of industry this can only be described as serious misjudgement or mismanagement, but in the terms of "human aspiration" it can hardly be termed less than cruel.

The N.H.S. a social service

The facts then are clear. There is a place for the supplementary medical treatment services in the health services, although what exactly this place is to be has yet to be more clearly defined.

In discussing "a ... comprehensive medical service for all"[2] Dr. Sands urges:-

> "a more even distribution of doctors and greater co-ordination between them and specialists, hospitals, clinics and public and private welfare organisations."[3]

This might well be echoed with regard to the supplementary medical treatment services. Dr. Sands held that these aims could only be achieved by respect for the liberty of the practitioner and the patient, some autonomy in the control of the practitioner service, "adequate representation on controlling bodies",[4] and protection against arbitrary action. If these conditions are essential for providing proper treatment they should surely be taken to apply more widely than to the medical profession only. It is hoped that the succeeding proposals made for the supplementary treatment services may offer means of implementing some of these suggestions.

Some professional autonomy & better representation called for

Dr. Sands adds that it is

> "inevitable that medicine should call upon the social sciences and social services" - (with which these supplementary medical services may claim a close link) - "to complete its knowledge of man and extend its active potential."[5]

The supply of recruits

One question remains. Are there enough people of the right calibre and training to meet this extension? If 60% to 70% of

---

1. ibid. pp.17-18.
2. R. Sands. op.cit. p.63.
3. ibid. 4. ibid. 5. ibid. p.568.

the treatment and other services

the grammar and high school girls who remain at school over the age of 15 are absorbed by teaching,[1] there is not a very large number left for every other form of service, including that of housewife and mother. There are, too, other inviting and more lucrative careers. Is dilution - that much feared and fought-over prospect - likely to be the solution? If taken to mean "re-inforcement" for the extension of the service in some or all cases, the answer is probably "yes". There is precedent for this in the nursing field, and it should not be forgotten that the supplementary medical treatment services are themselves a form of dilution of the medical profession[2] - although there is a difference between their relationship with the doctors and that of the state enrolled assistant nurse and the fully trained state registered nurse or between the "oral hygienist" or auxiliary dental worker, and the dentist. The personnel of the former[3] discharge their duties by virtue of some special skill "which can only be acquired outside the field of medicine",[4] while the latter[5] perform the less expert duties already included in the compass of the more experienced and highly qualified practitioner. If dilution - or re-inforcement - is necessary to enable some of the services to fulfil their proper function in the health services, to whom should it apply and what form should it take? This will be discussed in subsequent pages.[6]

Dilution broached

Grades of dilution discussed

It has been clearly demonstrated that perhaps the most urgent need for the proper functioning of the supplementary treatment

---

1. R. Lewis and A. Maude. op.cit. p.203.
2. Since ... it is all important that we shall maintain the standards of medical training, it seems inevitable that more and more of the techniques of medicine and surgery must gradually be decentralised on to the ancillary medical professions. This is probably a legitimate form of dilution. W.C.S. Copeman. The Lancet. 10.1.53. p.98.
3. i.e. the supplementary treatment services.
4. Reports of the Committee on Medical Auxiliaries. Minority Report. I. p.126.
5. The assistant nurse or the oral hygienist.
6. See p.192 et seq.

services within the health services is for greater recognition of their specialist functions and for some better form of consultative machinery.

Consultation needed to achieve successful co-operation

In the words of Andrew Boorde -

> "The physician and the cook must consult together for the preparation of meat for sick men. For if the physician, without the cook, prepare any meat, except he be very expert, he will make a wearish dish of meat the which the sick cannot take."[1]

If the overall planning of the services for "sick men", is now, to a great degree, in the hands of organising committees, finance committees and lay administrators, and only partly in those of doctors, how much more must these groups and those in the supplementary treatment services "consult together" to plan right courses of treatment.

---

1. The Wisdom of Andrew Boorde (c.1540) (Ed. E. Poole) p.49. (Leicester 1936)

f) THE GENERAL NEEDS OF THE PARTICULAR SERVICES, WHICH IF FULFILLED, WOULD ENABLE THEM TO FUNCTION EFFICIENTLY AND WOULD GIVE THEM A WARRANTED PLACE AMONG WELFARE SERVICES

"But it is true to say that reorganisation will achieve nothing unless it springs from the desire of free men to play their proper part in the world of affairs."

A.M. Carr-Saunders and P.A. Wilson
The Professions.
Oxford 1933. p.502.

A plea has already been made for more careful assessment of the functions of these professions within the health services, for greater understanding and co-operation, for some autonomy in the control of each service,[1] for better representation, and for protection against arbitrary action.

The problems of the services do not relate to the N.H.S. alone

Many of the problems of integration of the services cannot, however, be limited to their needs within the health services only, for all cover far wider spheres. The institution of the National Health Service has merely brought the whole position into clearer focus. The stage has been reached when some policy making and clearer definition seem essential in the interests of the community to be served.

In consulting members of the professions concerned in this survey it has become increasingly apparent that they have a considerable amount in common, to a certain degree only in subject matter, but to a greater degree in responsibility and type of service. This has also been shown in the preceding historical notes. One service seems, however, to know little of another, but senior members of all seem to have been feeling about for some

A need

form of greater integration and understanding.[2] They have come to

1. viz. "If the solution of nursing problems is in the hands of nurses themselves ... they are entitled to a more important place in policy-making." Sir F. Messer. Report on First Public Discussion of the Nuffield Trusts Joint Analysis. Nursing Mirror. 17.4.53. p.162.

2. "It is possible to detect a physical and spiritual unity underlying the independent existents ... of which our common sense

(contd. on next page)

for greater co-operation between services is being felt

recognise the need for it, even if their ideas on how to achieve it have not yet been formulated. If and when these ideas are developed, they may differ radically from any presented here, but the basis for them is the same - an awareness that, to be able to contribute usefully to a progressive health service there must be greater interchange of views and information, and greater collaboration in treatment.

To be able to co-operate to the full, however,

"those who intend to follow these occupations should"[1]

like the social science students of whom Professor Jacks is here speaking

A suggested basis for co-operation

> "be suitably trained in three directions; they should have an adequate knowledge of certain basic disciplines which are appropriate to all forms of (social) service, they should study special subjects appropriate to the particular branch ... which they intend to follow and they should be guided in practical experience in several departments ... before proceeding to such specialised ... training as may be necessary for the occupation of their choice."[2]

Some form of rationalization then is needed. Little will be achieved, however, until - to mix metaphors in order to make a point - the axes of all the treatment services are buried instead of ground, and until the members are working together for purposes outside and beyond the integration of their own professions. This does not argue that professional pride,[3] responsibility and integrity, and even a certain professional exclusiveness, have no value. In so far as they guarantee good service they undoubtedly

---

universe is composed ... But men cannot realise their unity with others and with ultimate reality unless they practise the virtues of love and understanding." Aldous Huxley. Ends and Means. Oxford 1946. p.300.

1. Extracts from Arts Prospectus. Univ. of Durham. 1952/53. Re. School of Social Studies. p.234.
2. ibid.
3. Defined as indicating "a code of behaviour where the first consideration is the need of the client and the quality of the work." A.M. Carr-Saunders and P.A. Wilson. op.cit. p.471.

have, but the danger comes from over-segregation, over-specialisation and a lack of wider vision. The danger of each group being over-concerned for itself cannot be denied,[1] but this will never be diminished unless mutual respect and understanding and the will to co-operate are engendered by mutual consultation, and unless the professions are enabled to function and negotiate in their right spheres.

Present variations in conditions of service etc.

The present variations in conditions of service and machinery for negotiation are confusing and surprisingly unequal.[2] The findings of the Cope Report, with their proposals for "an overweight of medical control" in matters relating particularly to these professional responsibilities have been referred to.[3] It is true that they have been dropped, but the concensus of medical opinion seems still to be in favour of this policy.[4] The fact that certain of the professions are now, and it is hoped temporarily, controlled by regulation has also been mentioned,[5] as has the setting up of the Working Party by the Minister of Health and Secretary of State for Scotland to devise "a generally acceptable plan" for state registration.[6] While negotiations are proceeding it may be well to note that Doctors, Nuuses and Pharmacists all have

(a) Their own national State Registration Boards with majority representation of the service which is registered under each of these boards.

---

1. "Engrossed and enamoured with the study of the individual trees the concept of the forest is being lost."
Lt. Col. S.M.K. Mallick. "Medicine: a Technology or a Profession." An address to the World Conference on Medical Education. 1953. Br. Medical Journal. 29.8.53. p.465.

2. Some, without training, are recognised for greater responsibility than those with it, and there are strange anomalies in salary scales.

3. See p.91.

4. The members of the Central Consultants' and Specialists' Committee of the British Medical Association were disturbed that the Minister intended
"To disregard the recommendations of the Cope Committee."
on State Registration. The British Medical Journal and Supplement. 4.7.53. p.4.

4. See p.93.

6. See p.93.

(b) Their own Whitley Council Functional Council for negotiating conditions of service, etc.

(c) Their own Standing Advisory Committees under the Central Health Services Council, (set up under the National Health Service Act) to deal with matters relating to their professional services within the National Health Service.

It has been said that the cases are not analagous because of the difference in numbers, but it is difficult to understand how numbers can necessarily offer a guarantee of quality of expert service, or why, because a profession has fewer, it needs greater control. The advantage of numbers seems undoubtedly to be in their bargaining power, but is this the right angle from which to approach the problems of proper integration? The basis of adjustment must be the service rendered, and as has also been shown, this is in the case of each of the professions under discussion a form of specialist service, not one, to quote from a preceding paragraph in this thesis, in which "the less expert duties already included in the compass of the more experienced and highly qualified practitioner"[1] are carried out. In these particular skills there are no more highly qualified practitioners.

Emphasis again on specialist forms of skill offered by these services

In view of the fact that the sum of the numbers of practising members in the five professions under consideration do not total more than 12000 in all as against 83,000 registered doctors, 198,000 registered nurses (in all categories), and 26,000 registered pharmacists it is agreed that some form of combined registration appears to be the only economic and reasonable proposal. A question arises immediately however - what shall the combinations be? Because of the distinct functions of various groups, and the numbers of groups likely ultimately to seek state registration,[2] it is suggested that those with some affinity, i.e. the treatment services, the social services, and the scientific services, should be

Numbers in various professions compared

Suggested form of combined

1. See p. 132.
2. If and when they may be considered to have attained a professional maturity, warranting this form of recognition.

State registration

registered under the aegis of their particular co-ordinating boards. The functions of some of the services may fall - it is true - under the headings of two boards:[1] the only solution for them would seem to be to give them the option of registration under one or other, and to devise machinery for inter-correlation between registering boards.

Effect of this on & in connection with Whitley Council grouping

When combined registration has been negotiated it may be necessary to consider a re-grouping in the Whitley Functional Councils. It is anomalous for a profession to have a part of its professional considerations and negotiations dealt with in one grouping, and the other part with a totally different set of health workers. Similar grouping on Registration Boards and in the Whitley Functional Councils would lead to ultimate simplification.[2] This might, certainly, call for more Whitley Councils, but it is believed that this would be in the interests of all concerned.

Suggestion for Consultative Committees under the Central Health Services Council

Turning to the National Health Service itself, would it not be to the advantage of the Minister, and to the service for which he is responsible, to follow the precedent already set in medicine, nursing and pharmacy,[3] i.e. to have standing advisory committees - under the Central Health Services Council[4] - of representatives of the professions which are registered under these co-ordinating boards? By this means contact could be maintained with the professions at a level related directly to the implementation of the services themselves, but thereby avoiding confusion with their professional negotiations.

Within the hospitals there are, in addition, the Joint Consultative Staff Committees whose value could perhaps be enhanced, and

---

1. i.e. The Radiographers, Dietitians, Almoners etc.
2. See Appendix 4 p.227. 3. See p.137.
4. The suggestion is that there should be one Standing Advisory Committee representing each combined Board - (i.e. one each for treatment, for social and for scientific services) with a member of each profession which is represented on that Board on the appropriate advisory committee.

Suggestions for wider use of and better representation on Joint Consultative Councils

their functions widened.[1] From general accounts representation on them does not seem to cover all services,[2] and in some cases the business appears to be confined to consideration of such matters as catering, cloak and rest rooms, etc. Could they not be used as forums for the discussion and solution of many problems of far greater interest and importance to the keen worker?

The need for the treatment services to be represented more widely

It should also be noted that no agreed representative place on has been given to supplementary medical service personnel/sub-committees of Hospital Management, Regional Board, Local Authority, Ministry of Labour or other authorities dealing with Rehabilitation. Some members of the services have been invited in personal and private capacities to sit on one or other, but meanwhile, untrained representatives of voluntary bodies have been asked to join. If the latter - whose help is invaluable - are there, is it not equally or more important that professional and trained representatives should be there too?

Some boundaries necessary

Although the foregoing paragraphs contain a plea for the re-consideration of boundaries, some there are which cannot be altered. In the meantime therefore, in the words of Mr. Farrer Brown, if the professions are

> "to be worthy of professional status and privileges they must do the best they can within the existing boundaries and with the resources available.[3] It is equally clear that they must resist the temptation to make these limitations, or any other difficulties coming from outside, an excuse for their failure to live up to the professional ideal."[4]

---

1. The Whitley equivalent of the works council, the joint consultative staff committee, has now been formed in all hospitals, and they are improving the sense of cohesion which is so desirable in any large community. There can be nothing more frustrating than being unable to put forward constructive criticism ... and such committees can ensure adequate attention to reasonable facilities, e.g. catering, cloakrooms or rest rooms which have always existed for the professional staff. These committees undoubtedly make a positive contribution to morale and thereby improve efficiency. The Lancet. 30.5.53. p.1082.
2. There seems to be one representative only of each Whitley Council group on each Joint Consultative Staff Committee.
3. Provided these are not cut off altogether, as has been known to happen.
4. L. Farrer Brown. The Almoner. p.13.

They must, then, not make excuses.[1] Should they not, like Charoux, adopt the view that some limitation can lead to a "fruitful despair"? It probably would depend, however, on the degree of limitation.

Reference to professional responsibilities

No amount of adjustment and negotiation, no mere statement of professional ethics are enough to ensure responsibility and integrity. There must in the first place be support for an agreed profession code.[2] Mr. Farrer Brown calls upon the professions to assume "greater responsibility for the conduct of ... weaker members",[3] and this is a fair challenge. Trainees for a profession are anxious to qualify well and get into its ranks but once there some have the tendency to relax standards, and the blame is put on difficulties encountered or lack of appreciation from outside. The worker may be ready to raise his or her voice in complaint about conditions or controls, in concert with others, but is unwilling to speak alone in support of ethics or efficiency, and only few are ready to contribute in a constructive way to the solution of professional problems. It must be admitted, with some shame, that the cry from "professional" members to their professional bodies is too often

> "What do we get for our money?"
>
> "The vital issue to-day is how far professional people are staying professional in every sense of that term."[4]

or is the professional institution becoming, instead, a professional "trade union"[5] - with emphasis on getting instead of giving?

---

1. Ref. R. Bacon's comments. (pp. 29-30)
2. Referring to individuals "who have associated for the purpose of initiating desirable change", Aldous Huxley says:- "The first condition of success is that all members of such association should accept the same philosophy of life in the work for whose accomplishment the association was founded." Ends and Means. Oxford 1946. p.129.
3. L. Farrer Brown. op.cit. p.6.
4. R. Lewis and A. Maude. op.cit. p.71.
5. "The traditional function of a trade-union has undoubtedly been the banding together of groups of persons so as to negotiate and secure for themselves advantageous terms of employment." Trevor C. Thomas. "Expulsion from Trade Unions, Law in Active Service" The Listener. Mar. 4th. 1954. p.379.

Although it is almost trite to insist that one will get to the degree that one gives, it is nevertheless demonstrably true. Good work done, even under difficult conditions, ultimately tells, although at times the good worker finds it necessary to change his sphere because of too many boundaries or too few resources. No service can be carried on entirely without support or facilities, although the worker must create some of both for himself. But some incentive to achieve success or improve conditions must be offered.[1]

The application of professional 'sanctions'

There can be little doubt that at times sanctions must be applied but this must be by the professions themselves and not by any other, outside controlling agency. This requires personal and professional courage, and a serious sense of responsibility, qualities which should be instilled or fostered in all those who are privileged to enter the professions. Nor should the management, if the term is apt, of a professional association be left only to a devoted few. There must be a greater leaven of responsible and informed members if solidarity is to be achieved, and they and the "few" will need, in this world of wider influences and greater democracy, "to learn the infinitely difficult art of helping to make up a collective mind".[2] On no account must increased salaried employment under State control be allowed to impinge on these responsibilities and privileges.

Reference to State Registration

Much of what has been noted as essential for the professions might be obtained by the right kind of State Registration - right for the health services, and therefore for the patients and for the

---

1. This is particularly true of finances in the Health Services. Departmental economy or careful expenditure, under the present régime, brings no credit to a department, no possibility of "capitilising" the money saved in the interests of improved treatment. Yet the Minister of Health has said in Parliament:- "What we want to achieve is a system whereby the service itself has an interest in economy which is as natural and rewarding as its interest in efficiency." Hansard. Vol.515. No.111. 18.5.53. pp.1743-4.

2. Sir Geoffrey Vickers. The Siege Economy and the Welfare State of Mind. The Lancet. 27.12.52. p.1267.

professions. State Registration is not in itself a solution, but if an acceptable and realistic form can be devised, it should offer suitable machinery, together with that of the professional associations, to achieve the protection of the patient and the desired service and standards. To the professions themselves, however, must ultimately fall the responsibility of guaranteeing good service.

The professions must be responsible for offering good service

Observers on behalf of H.M. Government there must be, and advisors whose words will carry weight, but if the best is to be expected from the professions, opportunity must be given to them to organise and offer the best. They, in their turn, will realise that it can only be the best if it meets the needs of the nation, as well as those - not of the professions alone - but of professionalism. The essence of true professionalism is, after all, good service to the client. Who is the client? First and foremost, the patient.

Recruits discussed

To achieve the standards called for, the professions clearly need good recruits, who can develop into mature, able workers, with vision and understanding - expert, yes, but in the broadest sense. They should be people who are capable, not just of fulfilling their specialised duties, but of exercising an influence on society both socially and professionally. This may seem a counsel of perfection. Can it be achieved? Can such a standard of professional ability and integrity be expected? Careful selection[1] is the first essential. Some are inclined to argue against it, but should the professions not value the quality of the service they offer sufficiently to ensure the quality of the worker? And should they not realise that only certain people are suited to certain tasks, and that recognition of this fact is one of the bases of good health? If much depends on careful selection and training, as much depends on leadership in the professions, on the "out-turnedness" of the senior workers, as well as on their attitude of responsibility and vision within their sphere and beyond it.

The need for selection and for high standards

---

1. See p. 200.

Speaking of these and allied services, Mr. Farrer Brown says:

> "The professions have striven to achieve entrance requirements which will ensure recruits of the best quality."[1]

- but it is, regrettably, not unknown for a profession to lower its standards if recruits are few. This cannot be the best method of maintaining good services.[2] Other solutions should first be sought. In addition to the careful training of the young recruit,[3] the professions might by thoughtful planning make it more possible to welcome and train older candidates. Some financial adjustment would be needed, for the older candidate can seldom afford a long training and is not often eligible for grant aid. Care must be taken, however, that the redundant and misfits of other professions are not encouraged to seek these forms of work as "therapy" for themselves, or as soft options. The serious medical attributes of these professions are not yet fully recognised, and many people still think of them as a specialised, but only slightly specialised, form of "voluntary work", for which little training is needed. Some, having "caught the eel of science ... conceive they have no difficulties to encounter",[4] and are too easily convinced of their suitability for one or other of these types of "social work".

Training of older candidates discussed

Supply of candidates

Dilution a possibility

Ideally, each service needs more trainees of a particular standard, but all are, at the moment, calling for them from the same "pool".[5] Lack of recruits may therefore suggest that some form of dilution[6] is necessary for certain professions.

Within each profession there is the need for administrators and

---

1. L. Farrer Brown. op.cit. p.10.
2. If the standard is lessened there may be a need, as there was with Egyptian medicine, to prevent experiment, allow prescription of known remedies only and to rely on treatment learnt by memory rather than dependent on judgment. Ref. R. James. Medicinal Dictionary. And see Part I. p. 91. Fn.1. and Part III. p.192 Dilution, or Extension of Services.
3. Who in any case can only at that stage absorb principles and wait to see them worked out in experience.
4. J. Adair. Lady and Gentleman Doctors. London 1812. p.107.
5. See pp.132,193-6. This is discussed further in this thesis p. 192 et seq.

treatment specialists. Both should be developed from among its qualified members. This indicates clearly that professional bodies should be concerned with post-graduate courses of training, as is the College of Nursing in such an efficient and admirable way. This also conforms to the precedent set by the medical profession, although the organization in the latter case is somewhat different.

Leaders needed in all professions

Another need, particularly of the newer services, is for a better geographical distribution of trained personnel.[1] This can only be achieved by an improved distribution of training centres, although not all who train in an area wish to practise there.

Better distribution called for

No mention has been made of professional finance, and it is proper that it should be viewed as one of the last needs on the list. It is, however, a pressing one. No professional body can achieve a great deal on modest membership fees only.[2] The professions cannot alone finance projects of investigation and research - investigation into the best use that can be made of them - research into improved methods of service, or assessment of the contribution they, with others, make to health and treatment services.[3] They can, and should, arrange courses for their members but unless some form of subsidy is forthcoming these can only be brief. It would seem then that these services should be among the claimants for a share of financial backing from state funds and recognised foundations.

Professional financial problems

At present it is also doubtful whether the professions can finance the training of their teachers adequately. Here again grant aid may be needed, but its exact form will depend very much on

Training of teachers

---

1. See lists of schools and their location - Appendix 3(a).
2. In no sense are the salaries high. Appendix 3(g).
3. "We are spending hundreds of millions on health services but we have little information on how well the different parts are working ..." Dr. Morris "would like to see the central health service council strengthened by a research secretariat to act as an intelligence service offering critical and constructive analysis of the workings of various parts of the National Health Service and observing the success of experimental ventures. Dr. J.N. Morris (Director of the Medical Research Council's Social Medicine Research Unit). The Lancet. 4.4.53. p.692.

the pattern of training which the professions develop in the future.

It is sometimes argued that registration fees should go towards the funds of the professional associations and help to meet the cost of maintaining professional standards. This seems unwise. It is suggested that the professional bodies while sharing the responsibility of examining, qualifying and registering its trainees, should in fact not be directly responsible for registration although a board which caters for these functions should certainly have on it a majority of members of the particular profession it serves. Examination and registration fees should be separate from the income of the professional association and should be used for the exact purpose defined in their titles.[1]

The need to keep examination and registration fees separate from professional ones

It is suggested by some that private practice can be useful as an example of experiment and independence not now possible in the stereotyped service of a big "machine". Facilities for this might be widened if some collaboration could be organised, by the sharing of consulting and treatment rooms, and the offer of combined out-patient and domiciliary service. One finds evidence of the need for this in certain larger towns. If this practice were likely to be financially precarious, practitioners might hold part-time regular appointments, and keep a private practice going as well. It would certainly offer a healthy variation in type of employment and work and would give an outlet for the qualities of enterprise and experiment needed to balance salaried employment under somewhat restricted conditions.

The value of private practice

In this evidence of what appear to be common needs, some elements apply more directly to certain services than others, and it is clear that certain of the professions have already entered for many of them.

In spite of the emphasis on common considerations and problems

---

1. No imputation can then be made that the professional bodies are likely to lower standards to gain more members and to secure professional funds.

there still appears no case for amalgamation of the professions and no argument against specialization. There is an obvious and continuing need for these various specializations in their respective spheres. There are however two forms of co-operation which would appear to interfere in no way with the specialised services -

Two forms of co-operation between the services mooted

(a) A common basic general course.[1]

(b) A Federation of Supplementary Medical Treatment Services.[2]

A basic course

The question - "why not develop a basic course?" - has too often been asked by responsible people not to constitute something of a challenge. The question has seldom, however, been followed by much consideration or any constructive suggestions, and has tended therefore to aggravate anxieties and cause the immediate setting up of defences for hard-earned specialised knowledge and skill. These defences may, in fact, be necessary: on the other hand more might be achieved by closer co-operation. On the evidence shown in the history of the development of the professions and on that of present day needs it does not seem unreasonable to meet this challenge with careful thought and argument. In discussing it, however, the whole matter must be approached objectively and with proper and continued respect for the differentiation in final function and responsibility of each of the professions concerned.

A Federation

A Federation of Supplementary Medical Services seems a not unnatural corollary, but it must be emphasised at once that it is envisaged that this would be a body formed voluntarily by the professions uniting in it, and would have no powers over them. Its function would be to share common interests and problems, and to form a centre for general discussion with those within - and - perhaps in agreed cases - without, the professions. It would link all the smaller professional groups together so that, should they so wish, they might present a united front to those with whom they have

---

1. See pp. 162 & 164. 2. See p. 189.

to negotiate, or it would stand behind any member profession if that body were to undertake negotiations on matters particularly related to it but of interest to the others. This would not seem an unreasonable form of co-operation in this day of "Bigness".[1] The possible form and functions of a Federation will be more fully discussed in later pages of this thesis.[2] This suggestion does not carry with it the argument that the services are in any way homogenous. That they should be so before forming such a federation is not necessary, but it does presuppose that there can be a useful degree of understanding and co-operation between the professions while they still maintain their distinctive services.

This list of the needs of the professions and the suggestions for their solution, culminating in the two main propositions[3] may be termed, in a sense, practical and economic, almost mundane. That they should be realistic, which perhaps combines the best of these elements, is only sensible and proper. Through the whole of the discussion there has, however, persisted the human element - the Body and Mind factor. This has not shown itself in one profession only: it appears and reappears in all, and in others with which they are connected.

Realistic proposals are undoubtedly necessary, but do the services not need, very particularly at this time of re-orientation, to share in what the President of the Royal College of Physicians terms "a philosophy[4] of medicine"?[5] There is little doubt that

---

1. R. Lewis and A. Maude. op.cit. p.261. 2. See p.189.

3. i.e. For a basic course and for a Federation.

4. Philosophy - "Love of wisdom or knowledge, especially that which deals with ultimate reality, or with the more general causes and principles of things. The Concise Oxford Dictionary. 1949. p.858. "By philosophy he meant the reasoned enquiry into the intelligible realities that lie behind the show of sensible appearances." W.G. de Burgh - referring to Plato. The Legacy of the Ancient World. II. London. Pelican. 1933. Appendix III. p.556.

5. "A philosophy of medicine, then, means the enunciation of general principles within medicine; but it also means something more, for it should include the criticism of medicine and its own general principles by means of the wider principles embodied in philosophy." Sir R. Brain. The Lancet. 16.5.53. p.959.

A philosophy called for

many of those engaged in treatment services of all kinds are feeling the call for this. In a world of radical changes, of big and bold legislation, it may be inevitable that for a time practical and economic adjustments should loom largest, but the age-old theme[1] is still there if the workers do not themselves turn their backs on it. By careful, enlightened and co-operative negotiation, by sometimes giving - but never really losing - a guiding philosophy can be developed and maintained.

Some will challenge the possibility of achieving any form of harmony between the professions, and in the health services themselves citing endless differences, administrative demands, controls in practice and hours and in freedom of service, etc. These are there, it is true, and are likely to be, perhaps, until more mutual confidence and understanding - understanding of the "philosophy" as well as of the science and economics of the services - have been established. And these latter qualities can only be established by persistent negotiations and the will to co-operate. It is only fair to admit that the authorities and organisers have problems too, but has it ever been considered that the best of these organisers may also have glimpsed a philosophy, and be striving for it - even if others appear to have forgotten it, or if it has become, for them, overlaid?

The services must undoubtedly stand firm on certain principles. Have they yet, however, ascertained clearly what the essential principles are? If so, are they limited to each service or are the main ones common to all?

If then, one of the needs of the services is for a more clearly defined philosophy and if this is, to a great degree, a common need, what better method could there be of developing this than touching, at some stage in the training, even the fringe of the subject, but

---

1. "The body-mind relationship assumes great importance in the philosophy of medicine. ibid. p.962.

touching it together,[1] and sufficiently, to prevent undue separation and competition and all the qualities which would impede - not the development of the techniques - but the offering of co-operative and wide visioned service.[2] And how better could these latter qualities be maintained than through a federation of services, joined together, not for economic and practical reasons only, but to share in the continued inspiration which a philosophy of treatment would afford.

What of the future?

At this transitional stage in all health services the propositions for a basic course and a federation of treatment services may perhaps seem practical and useful, but the further plea for the conscious development of a philosophy may appear far-fetched and even tinged with sentiment. But is it? Is the need not fundamentally, at the very core of the problem of adjustment, and is it not what many of the eminent and excellent but now apparently restless workers in many fields are seeking? How can the younger members of the professions be expected, in their turn, to pass on the lighted torches if they are taught only to run,[3] but if no effort is made to help them to keep the flames alight?

What propositions, then, can be put forward for the future?

---

1. Perhaps in a basic course.
2. For medicine is "both a science and an art ... Science is analytic, ... art is intuitive and sees in the whole something more than can be explained as the sum of its parts." Sir Russell Brain. The Lancet. p.964.
3. "Besides facts, there is a form of knowledge which may hardly be rational or even conscious, a sort of tact or intuitive perception ... unless this rich, immediate, if sometimes inarticulate knowledge can be tapped, the study of the social sciences will be not only incomplete, but unreal and misleading." Sir R. Livingstone. The Future in Education. Cambridge 1942. p.103.

149c
(cut)

PART III. EXAMINATION OF THE EFFECT OF THE FOREGOING FACTORS ON RECRUITMENT, SELECTION AND TRAINING OF PERSONNEL, AND CRITICAL AND CONSTRUCTIVE SUGGESTIONS RELATING THERETO

a) RECAPITULATION

b) CONSIDERATIONS FOR THE FUTURE

c) DESCRIPTION OF PRESENT TRAINING METHODS IN THE SERVICES UNDER DISCUSSION

d) PROPOSALS FOR A COMMON BASIC COURSE

e) THE PROFESSIONAL TRAINING COURSES IN RELATION TO A BASIC GENERAL COURSE

f) AN INSTITUTE OF TRAINING

g) A FEDERATION OF SUPPLEMENTARY MEDICAL TREATMENT SERVICES

h) FURTHER CONSIDERATIONS RELATING TO THE FOREGOING PROPOSITIONS

1. Recognition of standards, qualification and registration.
2. Extension of the Services.
3. Recruitment.
4. Entry Requirements.
5. Selection.

i) CONCLUSION

PART III. EXAMINATION OF THE EFFECT OF THE FOREGOING FACTORS ON RECRUITMENT, SELECTION AND TRAINING OF PERSONNEL, AND CRITICAL AND CONSTRUCTIVE SUGGESTIONS RELATING THERETO

a) RECAPITULATION

"This then is our heritage, and these some of our responsibilities. Conscious of the many problems which beset us, let us not only devote ourselves to those things which lie clearly to our hand, but look towards the misty horizon of the future in the knowledge that much will be revealed to us which is now but formless dreams."[1]

Sir Sidney Smith
University of Edinburgh
Graduation Ceremony 1953.

The preceding notes on the development of the therapeutic services, and of their position today, have brought certain points into clear focus, among them the following:-

That - (1) All the techniques used in these treatment services have early origins and, although there were close links between each, the techniques have remained in themselves quite distinct, and based on carefully recorded practice.

(2) The development of each has followed the line of the development of medicine, through the stages of magic and empiricism to scientific discovery and practice under the influence of church and state, or based on the enterprise of independent pioneers.

(3) The subjects which form a basis for all the services are those which also form "the edifice that is medicine".[2]

(4) To these basic subjects have been added those of the specialist skill and application of each particular treatment service.

(5) For reasons which have emerged, the practice of these skills has become divided. Distinct and valuable supplementary medical treatment services have been developed, the distinctions being necessary for the proper functioning of those services.[3]

---

1. The Lancet, 5.9.53. pp.462-3.
2. See Preface, p.ii.
3. For society is a 'community of groups' - each with its own service to perform. F.W. Blackman. History of Human Society. London 1926. p.493.

(6) Ultimately, and within the last sixty years all the services have followed the usual precedent of professional integration, forming professional associations, setting standards and examinations, developing ethics and improving practice.

(7) All have, within the same period, become recognised and accepted as essential treatment services within a health service - in war and in peace.

(8) All are now re-adjusting themselves in relation to the effects of recent legislation. In this they appear to share certain problems, aims, interests and hopes.

These are, then, indisputable facts. In addition the historical notes show the origin and persistence of a number of considerations common to these particular professions, but in no way impinging on their distinctiveness. Mutual regard for these considerations serves only to enhance the value of the treatments given. They can be listed under the following headings:-

(1) Treatment Methods.
(2) Treatment Considerations.
(3) Professional Considerations.
(4) The Treatment Teams.
(5) The Supplementary Medical Treatment Services as part of a Health Service.

(1) Treatment Methods. It has been postulated again and again that ideal treatment involves the body and mind and that the active participation of the patient in treatment, as against passive receptiveness, is, in almost all cases, an essential of successful therapy. There are times, it is true, when a patient must be completely passive and receptive. There are others when a more subtle form of indirect application is necessary. That any or all of these methods are employed in varying degrees in all the services has been shown.

(2) Treatment Considerations are directed towards the need to take into account the social and occupational background of the patient, to study, or at least to enquire into, working conditions, to view each patient, not as a typical "case", but as a particular person who has a disease or disability, a person from a particular social

setting.[1] Rehabilitation should cover, not isolated treatment items, but a planned day for the patient and should where necessary, lead to the development of new habits, and to ultimate successful re-establishment. There should be provision for after-care for those who need it.

(3) Professional Considerations cover, in part, the points already enumerated for, as has been stated, the essence of true professionalism is duty to the client. To protect the client - the patient - there is the need for the professional operators to have a professional status, to be officially qualified and registered, and to maintain high standards of training and practice. There is argument against professional competition, and a call for team work.

(4) The Treatment Teams should be led by the doctor, but because he has neither the time nor the additional special skill these teams must include supplementary medical treatment personnel. As has been indicated, there should be close co-operation between the specialist members of the team. This liaison could, it is believed, be accomplished better by improved understanding of the work and methods of each, by sharing a common "philosophy"[2] based on common knowledge, and by using where possible, a common vocabulary.[3]

(5) The Supplementary Medical Treatment Services as part of a Health Service are an obvious and proved necessity. A strong nation depends on a strong people, for "the wealth of a country is its manpower".[4] Patients should not merely be well enough to leave hospital; they need to be established, as far as possible, in work and independence. They should be cared for as realistically and economically as is compatible with proper attention to the needs of body and mind. It is to the achievement of these "post-hospital" aims that the work of these particular supplementary medical treatment services is especially directed.

---

1. i.e. Their work, residential, social and economic background.
2. See pp. 147-8.
3. See p. 160.
4. Sir William Petty, quoted by C. Singer in A Short History of Medicine. Ref. Petty's 'Political Arithmetick' (1683).

b) CONSIDERATIONS FOR THE FUTURE

> "When I first signified my intention of publishing the following sheets, I was told by my friends it would draw on me the resentment of the whole Faculty. As I never could entertain such an unworthy idea ..., I was resolved to make the experiment, which indeed came out pretty much as might have been expected. By the more selfish and narrow-minded part of the Faculty, the performance was condemned; while many of those whose learning and liberality of sentiments do honour to Medicine, received it in a manner which at once shewed their indulgence, and the falsehood of the common opinion, that all ... wish to conceal their art."
>
> Buchan's "Domestic Medicine, or a Treatise on the Prevention and Cure of Diseases by Regular and Simple Medicines". London 1774. Preface.

These words of Dr. Buchan seem surprisingly applicable, particularly if they are read as relating to the new "faculties"[1] under discussion in this thesis and if for the term "to conceal" could be substituted "to over-segregate". It is hoped, that the proposals contained here, even if not implemented in exact form, may be considered carefully, and that the outcome, whatever it may be, will prove in some degree as satisfactory as that which attended Dr. Buchan's efforts.

Is the separation of today desirable?

It has been emphasised that there was co-ordination between the supplementary medical services in their early stages, but what is usually viewed as progress has, over the years, led to separation. Can it be in the interest of progress then, to attempt to unite the services again in any way, or is the suggestion merely a symptom of this age of unions and federations, and of great and sometimes unwieldy structures? Is there something to defend in the complete separation and individuality of the smaller treatment services? Can they offer to the patient any form of counter-balance to a large "health machine"? Even if they can, does this deter them from forging certain links, provided that their final entities, characters

---

1. i.e. The supplementary medical treatment services:- Occupational Therapy, Orthoptics, Physiotherapy, Remedial Gymnastics and Speech Therapy.

and service "personalities" are not lost? Because history has shown the effect of early identification and co-operation between the services, and because this has led to their final and total separation as we see it to-day, are there not grounds for exploring the likely effects of a careful admixture of both elements? It seems worth doing so in the terms already put forward, those of a common basic general course, and of a federation between the professional bodies.[1]

Although there have, in the foregoing pages, been indirect references to recruitment, selection and training of personnel, the full effect of the factors elucidated in the early part of the thesis[2] has yet to be examined. To complete the picture, some propositions will be put forward, as bases, at least, for constructive - (or will it be destructive?) - discussion.

Trend of present day events

At this time of world and national recognition of health problems there are bound to be changes in the immediate surroundings and conditions of the services themselves. There have, in fact, already been many. The obvious result is the need for some form of re-adaptation within each service and for re-orientation in their more particular spheres. As soon as each begins to look outside its own confines it sees, almost closest to it, one of the allied treatment groups. It seems clear, then, that it is in relation to these

Re-orientation necessary

that re-orientation has first to be considered. It is probable that they will all increasingly find common issues and general policies in which they can collaborate and on which they can present a united front, still, as has been emphasised[3], without losing any of the value of their particular skills.

This view is not new: it has been growing

This is not an opinion arrived at hastily, or by one or two people only. It is one which is being widely expressed[4] and one being slowly, and it must be confessed, at times unwillingly,

---

1. See pp. 146-7-9.
2. As summarised pp. 150-2.
3. See p.146.
4. There are many calls for this in medical and social service circles and publications.

recognised by certain members of the professions themselves: others already support it. The exact form of possible co-operation has never been clearly defined, although challenges and suggestions are often casually thrown out. To achieve any degree of useful and happy co-ordination will be a matter of major diplomacy, calling for belief on all sides in the need for re-adjustment, for a readiness to see broadly, to think and act wisely and to sweep away all pet and petty dignities and theories. Are those in the supplementary medical treatment professions mature enough to meet the challenge, or must they remain still under guardianship[1] which may become stricter and more confining - through force of circumstances or the excuse of these - than any up to date?

Diplomacy called for from all sides

And a mature approach

In the title of this thesis, recruitment and selection come before training of personnel, but the first two can only be discussed adequately after the third has been considered. They are, therefore, to be dealt with in this inverted order, starting with the proposition of a combined basic course. Before doing so however, it will be well to explore the present position in regard to training.

Training to be discussed before recruitment and selection

---

1. See pp. 91-3.

OCCUPATIONAL THERAPY

Schools –	1st Year			2nd Year			3rd Year			Totals		
	1	2	3	1	2	3	1	2	3	1	2	3
Subjects												
Anatomy	124	60	82		24	30		6	20	124	90	132
Physiology												
Dissection &/or Demonstration	12	6	3		4			1	3	12	11	6
Functional Anat: & Mechanics of Movement.	17	12 2	–	12	16 14	10 10	–	10 –	10 10	29	38 16	40
Psychology	48	45	40	–	8	30	–	8	20	48	61	90
Medical, Surgical & Orthopaedic Conditions.	–	–		92	28	50	–	12	20	92	40	70
Psychiatry & Psychopathology.		–		21	27	24	–	10	40	21	37	64
Applied O.T.	80	–	15	74	54	42	–	46	40	154	100	97
Sociology	–	1	4	–	–	4	–	3	4	–	4	12
Exercises Recreation Dancing	–	40	42	–	11	20	–	–	20	–	51	82
Class Teaching		–	–	1 wk	10	20	–	2	3	1 wk	12	23
Patient Care	4	10	–	2	–	20	–	–		6	10	20
Clinical Lectures	–	–	–	12	23	15	–	20	26	12	43	41
Therapeutic Activities	832	870	1120	291	400	–	–	220	440	1123	1490	1560
Gen. O.T. Dept. Management Office Work.		30	15	8 1 wk.	8	20 20	–	10	20	8	48	95
Clinical Practice	24	70	120	648	720	1320	672 780 1452	720	–	2124	1510	1440
										3793	3561	3773

ORTHOPTICS

Schools –	1st Year			2nd Year			3rd Year			Totals		
	1	2	3	1	2	3	1	2	3	1	2	3
Subjects												
Anatomy	30	20	26	–		–				30	20	68
Special Anatomy	70	28	42	12		10	–			82	28 +3	
Physiology	30	25	26	–	6	–				30	25	71
Special Physiology	56	28	45	6		10	–			62	28 +3	
Dissection &/or Demonstration	6		3	–		–	–			6		3
Psychology	40	–	–	3	2	–	–			43	2	–
Orthoptics.	130	46	72	142	63	264	–			272	109	336
Optics	36	21	12	6	2	2	–			42	23	14
Opthalmology	18	–	–	20	18	30	–			38	18	30
Contact Lenses	–		–	6		2	–			6		2
Dept. Management	–	132	138	–	132	92					264	230
Patient Care	–	–	–	6		–	–			6		
Clinical Lectures	40	in*	12	40	24	60	–			80	24	72
Tutorials	40	144	–	40	144	–	–			80	288	–
Written Work		82			82						164	
English	24			–			–			24		
Operating Sessions	–	80	30	36	80	18	–			36	160	48
Clinical Practice	420	820*	600 374	1000	1380	892				1420	2200	1866
										2257	3320	2740

PHYSIOTHERAPY

Schools –	1st Year			2nd Year			3rd Year			Totals		
	1	2	3	1	2	3	1	2	3	1	2	3
Subjects												
Anatomy	242	176	180	110	98	100	–		–	352	274	280
Physiology	132	88	108	66	50	100	–	20	–	198	138	208
Dissection &/or Demonstration	–	12	28	10	6	32	–	–	–	10	18	60
Practical Physiology	15	12	–	15	2	18	–	–	–	30	14	18
Psychology	12	18	24	–	–	–	–	–	–	12	18	24
Medical, Surgical & Orthopaedic Conditions.	132	60	100	132	100	116	88	100	160	352	260	376
Psychiatry & Psychopathology	–		–	–		–	–		–	–		–
Massage	132	80	100	44	40	80	66	40	40	242	160	220
Electrotherapy	198	140	82	110	100	120	66	40	80	374	280	282
Movement etc. Remedial Exercises.	154	80	180	110	60	140	66	40	60	330	180	380
Relaxation.	–	–	12	–	–	–	–	–	–	–	–	12
Dancing.	–	–	12	–	–	12	–	–	–	–	–	24
Voice Production	–	–	10	–	–	–	–	–	–	–	–	10
Class Teaching	44	180	50	22	40	40	–	40	26	66	260	116
Patient Care	22	140	190	–	–	–	–	–	–	22	140	190
Clinical Lectures	–	–	–	10	20	28	10	20	40	20		68
Treatments	22	40	80	44	120	160	82	120	140	148	280	380
Visits: Other Departments	–	–	–	–	–	–	–	30	–	–	30	–
Clinical Practice	242	200	280	704	600	480	1078	800	520	2024	1600	1280
										4180	3672	3928

SPEECH THERAPY

Schools –	1st Year			2nd Year			3rd Year			Totals		
	1	2	3	1	2	3	1	2	3	1	2	3
Subjects					Biology							
Anatomy	23	60	36	21	40	10 36	–	–	–	44	100	10 72
Physiology												
Dissection &/or Demonstration	2	–	–	2	20	12	–	6	–	4	26	12
Practical Physiology	–		–	–			–					
Psychology	22	30	30	28	30	30	30	30	30	80	90	90
Medical & Surgical Conditions.	–		–	–	30	–	–	30	–			
Neurology.	–		–	2		10	19		30	21	60	40
Psychiatry & Psychopathology	–	–	–	–	–	–	10	30	18	10	30	18
Phonetics	60	60	60	30	120	60	–	–	–	90	180	120
Physics of Sound	–	12	–	4	–	10	–		–	4	12	10
Laryngology			–		12	–			–		12	–
Relaxation Therapy.	10		–	–		–	5		–	15		
Orthodontics & Prosthetics	–		–	–	12	12	5			5	12	12
Normal Voice & Speech	150	60	50	135	60	36	–	–	–	285	120	86
Teaching			10			–			–			10
Speech Pathology & Therapeutics	60	60	60	90	60	70	75	180	90	225	300	220
Clinical Tutorials	–		–	9		–	15	36	–	24		
Paediatrics	6		–	–	10	10	–	60	–	6	96 10	10
Plastic Surgery	–		–	3	12	3	–		–	3	12	3
Clinical Apparatus	10		10	–		–	–		–	10		10
Social Services	10			–			–	20	10	10	20	10
Visits to Special Schools etc.	3			–			–		–	3	–	–
Clinical Practice	75	270	100	180	270	100	300	270	375	555	810	575
										1394	1890	1308

c) DESCRIPTION OF PRESENT TRAINING METHODS IN THE SERVICES UNDER DISCUSSION

"The work of many of them calls for training which is not wholly acquired at the feet of medicine."

Br. Med. Journal.
Medical Auxiliaries
and National Registration
21.4.51. p.867.

Profes-sional respon-sibility for training

At present each profession trains for its own professional examinations. In some cases these are run by an education and/or examination board, answerable to the council of the professional association concerned. In others this board, while set up by the profession in the majority on it, is independent of direct control by the council of the professional body.

The training courses are usually run in training schools exclusive to, and recognised by, each profession. The contents of several of these courses are shown in the accompanying analysis.[1] The list of studies comprises theoretical subjects, many of them in basic social and medical sciences and in relevant pathological conditions, together with specialist study of skills acquired outside the field of medicine. There is, in each course considerable emphasis on the particular application of these studies and skills to the treatment of diseases and disorders.

Types of schools

Some courses are given in private schools - and it must not be forgotten that it was private enterprise, in many cases, which first put trained people into the field. Others are conducted by schools which have become a part of the National Health Service, through no particular intention, and somewhat, it is believed, to the surprise of a Ministry which found that, in taking over hospitals, it had taken over training schools as well. Still others are attached to wealthy independent hospitals or to some perhaps less wealthy non-government concerns, and their finances are tied up with these.

---

1. See opposite page.

The training schools attached to hospitals[1] have a double subsidy, one which comes in hidden form in the unassessed overheads of a large hospital, the other an indirect one, which comes from the local Education Authorities in the form of grants to students with which to pay the required fees. Schools not based on hospitals have to meet their training and overhead costs completely out of income derived from fees of students and their only form of subsidy - if subsidy it can be called - may be the indirect one from fees made available to grant-aided candidates.

Location of early theoretical training

There is a doubt in the minds of some as to whether the hospitals should be the centres of the earlier, basic parts of the courses of training, and whether precious hospital space should be used for this. It is not, in medical training, and seldom now in nurses' training. Why then need it be for those of the supplementary medical treatment services? The problem of actual location of the schools could quite easily be re-adjusted however by an arrangement such as that devised for the preliminary training schools for nurses, which are frequently housed in separate buildings within easy reach of the hospitals. The list of schools for each profession given in the Appendix[2] indicates the variety of location, control and organization that at present prevails in the various professions and, be it noted, in any one profession.

Variability and the reasons for it

As they are run at present, the courses offer certain problems, not least among them considerable variability in form, cost and subsidy.[3] Some will argue that variability has the advantage of individuality and gives freedom of choice. It has also limiting factors. Nor is this variability one of design or intention, as the historical notes have shown: the services and forms of training were evolved in relation to the problems and settings of each of the professions in their struggle for place and recognition.

---

1. Either Ministry of Health, Dept. of Health for Scotland, or Independent Hospitals.
2. See Appendix 3 (a).
3. See analysis facing p.156 and Appendices 3 (c) and 6.

This phase may perhaps be said to be over, and the next - calling for planned adjustment and wider vision - to have arrived. It may still be claimed that it is in the interests of the services to be rendered to retain variability, and there is little evidence at present to prove or disprove the statement. It seems that any newly planned scheme should, however, while safeguarding proper professional standards, be flexible enough to enable candidates of differing ages and qualifications to be admitted, and to allow for some variation in form and content.

Courses include theory & practice

The present courses are between two and three years in length and cover a considerable amount of theory and clinical practice.[1] In some cases there is concentration on the theory before students undertake practical work: in others both run concurrently. Most of the services are dependent for much or all of the clinical practice on hospitals in the National Health Service.[2] That this part of the training should take place in hospital in natural and proper. Some claim that this is an asset to the hospital, others that the asset is offset by expenditure of staff - time on the teaching and supervision of students, if this is, as with shortage of staff and pressure of work, it frequently cannot be, fairly and properly given.

The following comments on training methods in the Cope Reports make interesting reading:-

Where should responsibilities lie?

> "The Minister of Health and Secretary of State for Scotland might themselves be wholly responsible for the provision of training ... and for giving financial aid. This arrangement, however, appears to be inappropriate, because many ... may not wish to work in the National Health Service. Alternatively the Ministers might be responsible only for providing the clinical facilities necessary for training. The students themselves would be responsible for finding the money to pay for their training and would look for assistance to the local education authorities.
> A somewhat similar system obtains in the training of

---

1. See analysis facing p.156 and Appendix 3 (b).
2. Except for Speech Therapists. See p.118 ref. to School Health Services.

> medical students. This arrangement would be appropriate in the training of medical auxiliaries ..."[1]

It remains to be seen whether this is the final solution which will be arrived at as the result of the negotiations now taking place.[2]

The 'Situation Approach'

It is felt increasingly that all professions need to develop or maintain the "Situation Approach"[3] with its emphasis on well directed training rather than on qualification through apprenticeship only. This is described in the World Health Organization Report on a Working Conference on Nursing Education. There are a number of ways of achieving the "Situation Approach", and many of the existing schools would claim to have followed one or other of them successfully already.

The theory postulates two main principles:-

(a) that the preparation of the (nurse)(treatment worker) is an educational process;

(b) that the institution undertaking the responsibility for educating him/her accepts education as its primary purpose.[4]

Practical work as a part of training is not ruled out, but the emphasis is on student status, and on acquiring the necessary basic theoretical knowledge under proper classroom instruction. The following are further principles in this approach:-

The principles involved

that - (1) "the ... school is administered by an educational body";

(2) "it has financial independence with a separate budget";

(3) "it has a clear reciprocal agreement of mutual responsibility with a hospital and other community organizations for service and training".[5]

The medical training conforms in great part to these requirements,

---

1. Reports of the committees on Medical Auxiliaries. London 1951. p.22. And see Sir A. Daley 'Hospitals are the training ground for doctors, nurses and medical auxiliaries.' British Med. Journal. 1.8.53. p.256.
2. See p.93.
3. Report of W.H.O. Working Conference on Nursing Education. Geneva Tech. Report No.60. 1953, and Nursing Mirror - 15.5.53. p.426.
4. ibid.
5. Nursing Mirror 15.5.53. p.526.

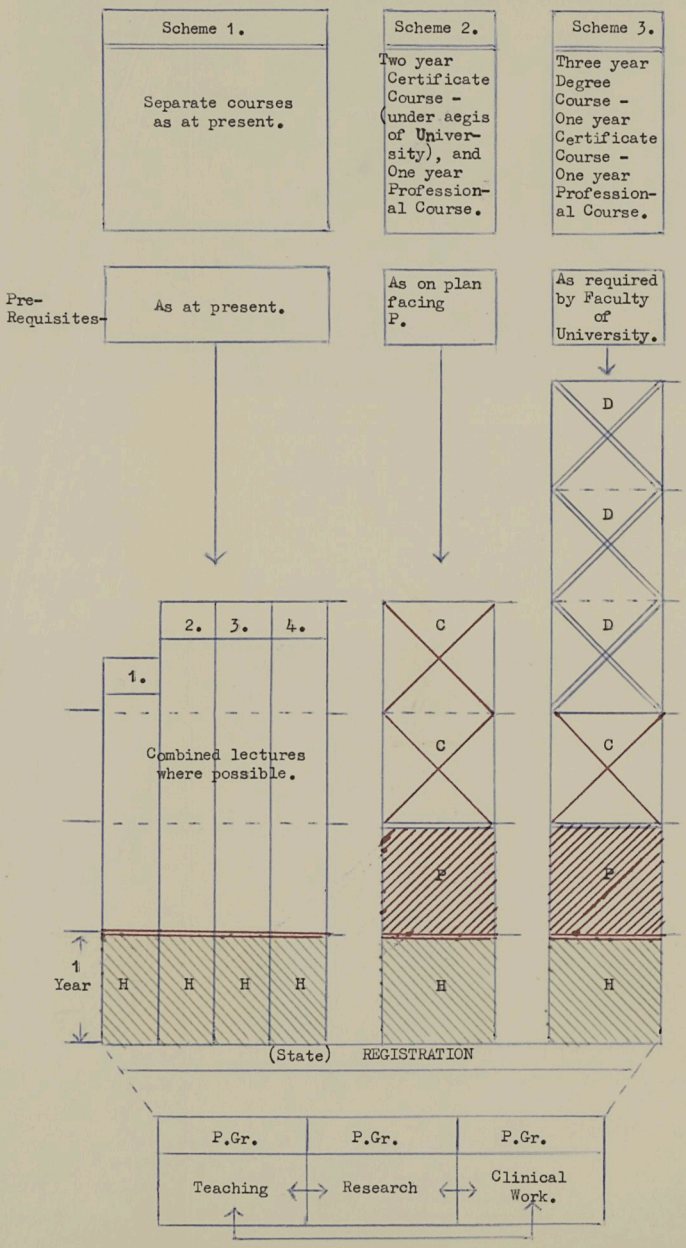
and a combined basic course for the supplementary medical treatment services would seem to offer or perhaps extend the possibilities of this "Situation Approach", particularly into the fields of the professions under discussion.

It would seem to offer too, the possibility of solving another problem, that of a common vocabulary. This may be felt to be of minor importance, but in co-operative treatment and team work it is a very necessary consideration. Certain of the services have a better established professional and technical nomenclature than others. Some need clearer definition and simplification of the terms used in their specialised work. Others need to develop a suitable nomenclature rather than to use, or misuse, inappropriate lay words and terms. The lack of an adequate vocabulary has in addition caused untrained workers to believe themselves capable of carrying out what is, and should be, expert treatment.[1] This lack of a vocabulary is not entirely due to "an admirable dislike of obscurity for obscurity's sake":[2] it is a want of precision which has "unnecessarily and unwisely deprived" some services "of valuable tools".[3] It would be particularly useful if in a common basic course an inter-service vocabulary were developed which would facilitate the exchange of information and experience on a professional level.

---

1. See p. 143.
2. B. Wootton. Testament for Social Service. London 1950. p.13.
3. ibid.

PLANS FOR CLOSER CO-ORDINATION IN TRAINING COURSES



160c (cont.)

KEY TO DIAGRAM

PLANS FOR CLOSER CO-ORDINATION IN TRAINING COURSES.

1. = Orthoptics.
2. = Occupational Therapy.
3. = Physiotherapy.
4. = Speech Therapy.



C = Certificate Course.
D = Degree Course.
P = Professional Training.
H = "Houseman" Year.

= Full (basic) Qualification.

d) PROPOSALS FOR A COMMON BASIC COURSE

"By calling it 'basic' we mean that it must suit all (social) workers, and that it will be followed ... by more specialised training adapted to the different branches ..."

T.H. Marshall
Training for Social Work
Nuffield College, London
1946. p.11.

Three schemes to link training courses of various professions

Three alternative methods[1] have been planned for a combined basic training for those wishing to become Occupational or Physiotherapists, Orthoptists or Speech Therapists. Consideration of the training for Remedial Gymnasts, which is still in a position of uncertainty and flux, has been left out of the present picture, but there will be some indication later as to how they could be trained within the suggested framework.[2]

The plans to be discussed can be listed briefly as follows:-

Scheme I calling for greater co-ordination between present training methods, but making little alteration in them, except in giving an extension to them.[3]

Scheme II catering for a 2-year certificate (or diploma)[4] course under the aegis of a University, on the lines of the basic social studies courses now in operation at many University centres,[5] to be followed by a shortened specialised professional training course, and the extension referred to above.[6]

---

1. See diagrams - opposite this page.
2. See plan facing p.169 Ø.
3. i.e. The "Houseman's Year" - see "H" on plan, and p. 164.
4. A Certificate is given by most Universities, (not all) to non-graduate students taking only the two year basic course. A Diploma is given by many of these Universities to a graduate student who is allowed to take the 2 year Certificate course in 1 year. The use of these terms varies, however, from University to University. To quote Miss E.L. Younghusband, there are "trainings in social work offered by the Universities, whether these issue in a degree, diploma or certificate ... The 'hard core' is, however, not the degree student, but the student taking a General University Social Service Course composed of a mixture of theory and practice directly relevant to social work." Report on the Employment and Training of Social Workers. United Kingdom Trust. 1949. p.23.
5. See lists in above Report.
6. i.e. as note 3.

Scheme III under which candidates might first take a University degree and then proceed to the specialised professional training courses and their sequalae.

Scheme I.

The suggestion here is to leave the training courses substantially as they are, under the aegis of each profession, for that profession only, with the exception of arranging where possible for lectures in certain common subjects to be taken together, particularly in the early stages of training. The courses for students in Occupational, Physio and Speech Therapy would still cover three years, and for those in Orthoptics two to two and a half. Even if the courses remain as at present all groups might well see more of each other's work from the early days of training and they might include in their combined or separate courses, more knowledge of realistic social and employment problems, based perhaps on some relevant, but not too closely related, study of social history and conditions.[1]

Some lectures in common and more contact in practice recommended

A need to introduce some study of social conditions

If certain lectures were to be taken together these would vary according to the groups prepared to co-operate, and to their specialist interests. No exact time such as 3, 6, 9, or 12 months, is envisaged for a combined course. Lectures would be shared for short or long periods throughout the training, to the degree only that one group had anything in common with another. All might, for instance, share an initial course in anatomy, physiology and psychology. Occupational therapy students might then join with physiotherapy students in a course on anatomy and physiology of the locomotor system, while orthoptic students and those studying speech therapy might do a course of anatomy and physiology of the head and neck. Occupational and speech therapy students would have a common interest in certain neurological and psychological conditions and orthoptic and speech therapy students perhaps in child psychology.[2]

---

1. "The understanding of medicine depends on the understanding of men." G. Brett. op.cit. Vol.1. p.49, and again, "Deep knowledge of man and great knowledge of healthy man are essential for the fight against disease." H.E. Sigerist, Man and Medicine. London 1932. p.3.

2. Not exclusively, but this subject is probably more necessary for them in the basic course and would be more of a specialized need for the others.

Shortage of teachers

Teachers in all the services are in short supply, and the suggestion that lectures could be given in common would help to relieve the situation. If, however, the specialist emphasis is to be retained throughout the whole course, this relief could only be limited.

Organisation of this scheme difficult

To the outsider the plan sounds more easy than it would be feasible to the administrators of each training group. If the schools remain separate and retain much of their present form of administration, organisation of combined lectures might prove exceedingly difficult unless there were some more definite form of centralisation and co-ordinated direction. Fees would be difficult to plan, and overheads to assess. On the whole it would almost seem better, in proverbial terms, to leave the cherries alone than to take several uncertain, and probably unsuccessful, bites at them. This first scheme would appear then, inconclusive, lacking in cohesion and administratively difficult.

Pilot scheme suggested

Immediate changes not advised

It only seems worth putting forward new plans if they are far more radical, and valuable enough to warrant considerable deviation from the old, but this does not argue the wisdom or need for immediate drastic changes. As a first step a pilot scheme only might be started on completely new lines from which could be judged, if judged without prejudice, the value of new proposals. Meanwhile the present plans of training would have to be continued for a substantial number of years, to give a foundation of security to any new experiment and to maintain the supply of trained personnel.

Before turning to the next schemes, however, a further suggestion to complete this first, and one to be followed in the succeeding two, should be added. It would, it is felt, enhance the standing of senior members of the professions, and be of considerable incentive and training value to junior members, if the latter, although fully qualified in regard to their 'general' training at the end of three years, were to work in paid assistant

Proposal of one year of practice before registration

capacity for one year[1] - a 'Houseman's year' - before gaining membership of their professional bodies, and before becoming registered practitioners. There is precedent for this in the medical course, and it seems worth careful consideration in relation to these.

In several, at least, of the professions under discussion provision - or, more adequate provision - needs to be made for "post-graduate"[2] study and for incentives for the more ambitious and able candidates.[3] Here again there are precedents in the nursing and medical fields. Few can afford further expensive full-time courses after training, but facilities for coaching and study should be provided for specialist qualifications. It is suggested that candidates should work for these while acting as assistants in specialised departments. The Occupational Therapist, for instance, wanting to qualify ultimately for supervisory work in the field of mental illness or tuberculosis would take an assistant's post in connection with one or other, and could then study for an advanced qualification. The organization and direction of this post-graduate study might be arranged by the professional bodies themselves, or perhaps by the "Institutes" [4] to be proposed later.

The need for post-graduate study

Scheme II.

The second scheme is by intention far bolder than the first and is that upon which it is intended to concentrate for the purpose of this thesis. Following the precedent set by the Social Studies Departments of various Universities,[5] this is a plan for a combined

Proposals for a supple-

---

1. This might be done in two 6-monthly periods or in the form of part-time service over a longer period but should not be too fragmented.
2. This term is used for lack of a better, and does not signify a university graduate.
3. There is already provision in some - vide Physio-therapy and Speech therapy.
4. See p. 181.
5. In addition to individual prospectuses, see E.L. Younghusband's 'Social Work in Britain'. Supp.Report 1951. Appendix I. pp.185-237, for summary of these courses. She says:- "By providing

(contd. on next page)

mentary Medical Treatment Services back course like those for the Social Studies

2-year basic course, conducted under the control of a Board or Delegacy appointed by a University, constituted by co-operation between the Faculties of Medicine and Social Studies. The Universities would, if precedent is followed, award certificates or diplomas to successful candidates after completion of the course.[1]

Advantages of these

There can be little doubt that a general course, such as that upon which the training for professional social workers is based, creates understanding between the various services at a later date and affords a common basis for exchange of views. It also contributes to good liaison between workers sharing responsibility for a patient.[2] A common basic course is, too, a saving of time and money which might otherwise have had to be spent in teaching small and separate groups. Because students for various professions can be thus grouped it also makes for better geographical distribution of personnel. Can these advantages be transposed into a form of training suitable for the supplementary medical treatment services? It is believed that they can.

A Supplementary Medical Treatment Services Delegacy and Department under the aegis of a University

A scheme has been devised for a course planned to cover two years, and to be carried out by a Socio-Medical Studies Department, run by a University Delegacy or Board.[3] It is suggested that this should be comparable with those of the Social Studies Departments of the Universities of Oxford, London, Birmingham, Liverpool and many others. The plan has been designed to offer a combined basic course for candidates intending later to enter the professions of occupational therapy, physio-therapy, speech therapy and orthoptics, and could, in addition, perhaps, be useful to students intending to enter certain other allied professions.

It is important to emphasise that these courses are intended

---

these courses they"-(the Universities)- offer "a professional training which could more appropriately be given by Universities than any other body." E.L. Younghusband. 1949 Report. p.25.

1. Not of professional qualification: see pp.174 & 192.
2. This is particularly valuable for younger candidates.
3. See diagram facing p.161 and plan facing p.168.

Basic courses to be preparatory only

as preparatory ones only, and are not to be confused with the professional training courses themselves to which the students would then proceed. There are several reasons for this. The first is that it is felt - by some only it is true - that students for any of these professions would be better for a wider introduction to socio-medical problems than can be given in the crowded and specialised courses provided entirely by the professions concerned.[1] Secondly, this more general approach is likely to give a proper and greater prestige to the professions themselves. The public in general and associates and employers in particular are likely to feel that they are dealing with groups which have had the opportunity of wider training and vision, of greater experience and understanding, rather than with ones which they can too easily accuse, even if the accusation is not merited, of narrow horizons and vested and internal interests only. This, surely, is important to those sharing professionally in the health services. The call, too, is increasingly for workers capable of taking more responsibility, rather than less.

The attitude of Universities to vocational courses

Thirdly, the advantages of University connections, which makes for this wider education and breadth of thought and experience, cannot be demanded on any narrow professional basis. While it is true that in the Universities certain vocational courses are provided, it remains clear that the function of the Universities is to educate generally and not to offer vocational training.[2] Careful scrutiny

---

1. See analysis of training courses facing p.156.

2. "The demand not infrequently made that the Social Study Schools should turn out fully equipped social workers who are versed in all kinds of social techniques, is based on a misconception of the character of the University course. The following quotation, defining the difference between the Trade School and the University School of Social Science, by the Director of one of the American University Schools of Social Administration may claim some validity also in this country.
'In the Trade School people are taught techniques, they are taught how to do specific things and are expected to be effective and efficient at the time they complete the work of the Trade School ... The Trade Schools are interested in immediate efficiency; the Universities are not. The University assumes the individual should be given a breadth of view and a grasp of fundatheories and principles, so that he will be able to apply his principles and his theories to the solution of problems which arise from day to day.'" C. Lenbescher. Training for Social Work. Nuffield College. London 1946. p.57.

and analysis of lecture schedules show a number of lectures listed for, and common to, students in a variety of faculties, while others are limited to one group of students only, but not necessarily vocationally.

Accepting then the educational function of the Universities, is it possible to develop a suitable training scheme in connection with them? As this has been done successfully for the group of social service professions it seems reasonable to hope that it may also be possible to devise one for the therapeutic services.

How much have the professions in common and on what foundation could a combined basic course be run? References to the analysis of three training courses in each profession[1] gives some indication of the present position, but it is not only with present methods that the proposals in this thesis are meant to deal. They are intended to postulate new propositions which may, in fact, mean a certain deviation from present methods, in the interest of achieving greater unity and better integration in the training of personnel for all the professions. Although a careful study has been made of existing courses, no attempt has been made to "lift" any exact section from them for incorporation in this scheme. What appeared to be the essentials of each present method and for each profession have, it is hoped, been included in these new plans. Some gaps there may be, but it should be remembered that this particular two year course[2] is to be a preparation for the professional training proper, i.e. the year of specialised theoretical and clinical training, together with that of the "Houseman's Year"[3] - two further years in all. Although the candidates will have "qualified" (basically) at the end of three years, i.e. at the end of the two year certificate course and the one year of professional training[4] -

The new schemes are not exact replicas of the present professional training courses

1. See analysis facing p.156.
2. See Scheme II - plan facing p.161.
3. See plan facing p.161 - section "H".
4. See plan facing p.161 - sections "C.C" and "P".

SUBJECTS FOR A CERTIFICATE COURSE - (2 years)

IN SOCIO - MEDICAL STUDIES.

	OCCUPATIONAL THERAPY	PHYSIOTHERAPY AND REMEDIAL GYMNASTICS ∅	ORTHOPTICS	SPEECH THERAPY
A. Subjects common to all. ± In this only certain lectures would be taken by certain groups.	1. (a) Socio-medical History. Social Administration. Professional Ethics and Principles. (b) Subject of students' choice - (see text) 2. (a) The Human Being in Health - i.e. Anatomy: Physiology: Psychology. (b) Deviations from Health - Elementary Pathology. ± General Medical, Surgical and Psychiatric Conditions.			
B. Subjects common to two or more groups.	Anatomy and Physiology of the Locomotor System. Mechanics.		Anatomy and Physiology of the Head and Neck. Child Psychology.	
C. Clinical and Field Work. (1 or 2 days per week.)	The Therapeutic analysis of activity.	Electricity and Magnetism.	Optics.	Phonetics and Normal Voice.
	Therapeutic activities.	Therapeutics - i.e. Massage, Exercises, Electrotherapy.	Orthoptics.	The Therapeutics of Speech.
Vacation Work.	Xmas Vac: 2 weeks: Easter Vac: 2 weeks: Long Vac: 10/12 weeks:			Total 14 to 16 weeks.

∅ - Remedial Gymnasts would follow A. 1 + 2, and B, as set for Physiotherapists, but in C. would concentrate on lectures and practical work most appropriate to their needs.

they may not have as much actual professional knowledge and experience as the three year candidates have now until the end of the fourth or "Houseman's Year". Their training will, however, have been wider and sounder and should have cost no more,[1] and, it is earnestly hoped, should enable them to bring greater vision and maturity to their work.

Is longer training desirable or warranted?

Some may call for a still longer training. However desirable this may be, is it economic and is it warranted? At a certain stage the best way to learn is surely to practise and to take responsibility. The three year candidate will be ready for this, under supervision, and should be able to do it in paid capacity.[2] This will also perhaps obviate the not unheard-of danger of a student's feeling that after qualification there is no more to learn.

Name for course

It is suggested that the course should be termed a Certificate Course in Socio-Medical Studies.[3] It should be divided into 3 sections:-

Division of course

A. Subjects common to all students.

B. Subjects common to two or more professional groups.

C. Clinical and field work.[4]

A. Subjects common to all students. These have been divided into two groups, (1), the Social, and (2), the Medical. Both have again been subdivided -

Social study group

Group (1) (a), as will be seen, covers an introduction to Socio-medical History, to Social Administration, and to Professional Ethics and Principles, the latter with particular reference to medical aspects. The introduction of some of these is an innovation for certain professions, and may appear ambitious, but it is

---

1. In the Houseman's Year a salary is to be paid.
2. This Houseman's year.
3. In contra-distinction to the term used by the Almoners for their work - i.e. "Medico-Social".
4. This stage follows the precedents of the social studies courses in a number of Universities.
For details of this see p. 170.

felt to be an important addition, calculated to produce much of the broadening effect sought.[1]

In sub-section (b) of this same group it is proposed that a topic of study not too closely relevant to the students' later work should be chosen from general subjects available in the University. The purpose of introducing some subject of the students' choice is to encourage them to read widely and to bring to it some individual interest. Subjects from which the choice should be made would vary with availability and administrative arrangements at each centre, and might include:-

An Introduction to Social Anthropology.

The Theories and Methods of Sociology.

Modern Social Structure.

Social Philosophy.

Statistical Methods.

Human Geography.

The History of Art.

The History of Music -[2] etc. etc.

Medical studies

The medical group (2) within this first section has, in its turn, been divided into - (a) The human being in health, and (b) Deviations from health. The first covers such natural sciences as Anatomy, Physiology and Psychology, and the second is intended to be studied under the headings of Elementary Pathology, and General Medical, Surgical and Psychiatric Conditions. If students have already chosen the profession for which they intend to train, as most will have done, only certain lectures in either of these sets will be needed for certain groups.

B. Subjects common to two or more professional groups. Would-be occupational and physiotherapists might study Anatomy and Physiology of the Locomotor System, and Mechanics, together. Orthoptists and

---

1. The lectures should be enough in number not to be superficial, but the courses should on no account be overweighted.
2. For details of such courses see Appendix 9.

Speech Therapists would, as has been mentioned in Scheme I, need additional study of the Anatomy and Physiology of the Head and Neck, and might, perhaps usefully, take a course in Child Psychology.[1] If students for a larger group of professions were to take this same basic course, further options might be necessary in this and the next section.

C. Clinical and Field Work. Here, if precedent is followed, students would spend at least one day[2] a week in clinical and field work, and, again in line with precedent, this would be arranged in relation to the professional course which the student was likely to follow afterwards. The subjects for study are listed in the upper line of section C. in the diagram opposite - page 168 -, and the practical subjects are listed on the lower line. These latter would probably be available in hospital and treatment centres which catered for the professional training courses,[3] and their recognition for the Certificate would, it is envisaged, come through endorsement rather than through teaching in the Department[4] itself.

Weight of courses

The weight of the proposed courses can only be judged by comparison with those upon which the scheme has been modelled, and these are not easy to analyse. A study of the contents of University Certificate - or Diploma - (2 year non-graduate) courses reveals an average of 10 to 12 subjects of study per course, with examinations in 4 to 8 of these. Field work covers 12 to 16 weeks. In some Universities the subject headings cover two or more subjects in another. It is obvious, too, that there is a slight bias towards the needs of the different professions which the candidates may later choose, in that there is, in some cases, a list of

---

1. See Appendix 3 (b).
2. In some social studies courses more than one day is allowed, particularly in certain terms.
3. See later discussion on professional training courses.
4. i.e. The Department of Socio-Medical Studies. p.

Optional subjects

optional subjects from which one or more may be chosen.

In developing a scheme for the supplementary treatment services these same principles have been followed. A further point of note is that, although the emphasis in the social studies courses is, quite naturally, on social and economic studies, there appear among the optional subjects a sprinkling of what may be termed medical or quasi-medical subjects, i.e. "Elements of Physiology",[1] "Anatomy, Physiology and Dietetics",[2] "Human Biology",[3] chosen to correspond "to the branch of social studies studied in the first year".[4] It does not seem unreasonable, then, to invert the emphasis for the courses proposed.

It is not intended, however, to suggest that basic courses for the supplementary medical treatment services should be combined with those for social studies, although it is apparent that they might be run with some liaison. There are, in fact, certain subjects[5] which could be considered common to both and which could be approached from the same teaching angle. To attempt to combine the courses would however be to destroy the efficacy of each. There is no doubt that there is not sufficient common matter, nor is the aim of either sufficiently like that of the other, to warrant this. They should, rather, be termed complementary.

More detailed plans can only be tentative. Paper propositions must precede experiment, and at the first attempts at implementing them problems are likely to emerge.

Allocation of time

The two heaviest courses of the supplementary medical treatment services[6] appear, on analysis, to be those for Occupational Therapy

1. (And Psychology) - Birmingham.
2. Trinity College - Dublin.
3. Durham - (Kings College - Newcastle-on-Tyne).
4. See Prospectus - Durham University. Social Studies Course.
5. i.e. Those relating to the Social Studies.
6. See analysis facing p.156.

and Physiotherapy, both covering 3 years and taking approximately 3,500 hours and 4,000 hours respectively. Divided as nearly as possible, this would allow 2,334 hours and 2,666 hours each for a 2 year course. Calculating a University year as 26 weeks of 40 hours, a two year total would give 2,080 hours. Vacation work of 14 to 16 weeks[1] would give a total of 2,640 or 2,720 hours. On these rather close analogies it seems reasonable to suggest that the course envisaged might be feasible, and that the introduction of some extra subjects might be offset by the ultimate addition of the "Houseman's year".

Some indication should perhaps be given of the allocation of time. Here the precedent of the social studies courses cannot be followed too closely. The natural and medical sciences require to be taught by lecture-demonstration to a greater degree than do the social sciencies. Careful reading can cover a great deal of ground in the latter: in the former reading and study are of little use without practical facilities and observation. Where, then, the total of the hours allotted to lectures in a social studies course might be 450 to 500, it is suggested that for this course it should be not less than 650 to 800, including seminars, (for sections A and B of the plan[2]). Among the lectures listed there would be, as in other courses certain options for different groups of students. It is suggested that, for section C, a minimum of 700 hours be allocated, (excluding vacation work). Of the total of 2,080 on which these proposals are based, there would then be 730 or 580 left for study, etc.[3]

It is suggested, too, that the course should include, as extra

---

1. Excluding the 2 months of practical work proposed on completion of the Certificate course and prior to entry to the professional course. This would give an additional 240 hours.
2. Facing p.168.
3. It may be noted that in the analyses of the courses facing p.156 no allowance appears to have been made for this.

Extra subjects

and non-examination subjects, an introduction to voice production and some form of training in movement and relaxation. These would enhance the value of the main course.

On completion of this basic course students would proceed to the theoretical and clinical course of training for the profession of their choice. Each profession might require of the entrants a further 2 months of field work, which could be fitted in between the end of the certificate course and the start of the professional training course.

Staffing

The proposition for a basic general course will not be complete without reference to staffing and finance.[1] It is suggested that the Director of the course should be a University graduate with some appropriate degree such as that in psychology and physiology, or some similar (non-medical[2]) qualification. The staff should consist of whole or part-time specialists in each of the professions for which the trainings are designed. It is envisaged that these would not serve their own specialization only, but would act as lecturers/tutors in certain subjects to the whole group.

Finance

Details of financial considerations will be found in Appendix 6 but it should be noted here that extra grants would be required to establish these courses. If, as would perhaps ultimately happen, basic training courses of this kind became the pre-requisites for entry to the professional training courses, there would be a considerable relief to the exchequer of the Ministry of Health, in cost of space and overheads. This relief might not unreasonably be diverted to subsidise these basic courses.[3]

This, then, is Scheme II in outline - that for a basic general

---

1. These will have to be considered in relation to number of entrants and scale of fees. The course might be run for about 130 candidates, based on an annual intake of 65-68. See p. 188 fn. 1 and Appendix 6.

2. It is intentionally proposed that he/she should not have a medical degree. Over-emphasis on pathological conditions would, at this stage, defeat the aims of the course. Medical direction should come later, in the clinical part of the training.

3. And might help to reduce the fees proposed in Appendix 6. See ⁂.

course culminating in the granting of a Certificate in Socio-Medical studies. It is hoped that serious consideration will be given by some University authority to implementing it in some form.

Scheme III.

The advantages of a full University degree course prior to professional training

This may be termed, by some at least, the ideal scheme. Theoretically it should be, on the supposition that the best education given to the right personalities must, of necessity, yield the best results. If

> "Certain qualities such as precision, clarity of thought and expression, the power to weigh evidence, and integrity of mind" are "basic in the make-up of an educated" person.[1]

and if there is added to this, a "sense of moral values"[2] all would surely be agreed that there could be no better foundation for the therapeutics under discussion. These attributes linked with the real sense of service, interest in others, some capacity for practical work and good medico-social relations, are called for to a greater or lesser degree from all candidates.

Provided that they had the means, and were of adequate academic standard, the candidates to be trained under this scheme would go first to a University to take a degree course. From this they would proceed to the diploma or certificate course, and then to the year of professional training.[3] The total of this would be a six year course (excluding the "Houseman's Year") which might, however, be reduced to five years if the candidates took an appropriate degree.[4] In this case credit would be given, and the entrant might cover the diploma or certificate course in one year.[5] The professional course would then follow, and, after qualification by

The length of the complete training under this scheme

---

1. Sir Douglas Veale. Ends & Means. The Listener. (Talk on Conference of Heads of Commonwealth Universities) 6.8.53. p.215.
2. ibid.
3. See Diagram facing p.161.
4. In Physiology and Psychology - or Anatomy.
5. The candidate would - if precedent were followed - be awarded a post-graduate DIPLOMA. See Note 4 p.161.

either method the candidate would take the suggested "Houseman's" post before registration.

The numbers would probably be few

There is little doubt that, given the right personalities, this scheme should provide well-trained and mature entrants for the professions. It would probably do so, however, only in small numbers, because of the problems it presents. Few are prepared, or economically able, to spend five or six years on a professional training.

Financial considerations

Again, these professions are mainly women's professions, and with marriage 'wastage' and other claims the investment in such long courses would probably not be considered reasonable for the majority. Investment must also be assessed in relation to the numbers required, the nature of the work, and the resulting status and salaries. If all candidates could afford, both in time and money, to train by this method, and were capable of deriving benefit from it, it would of course be considered the best.

Discussion of the practicability of this course

It must not be forgotten, however, that much - at present probably too much - of the work of many of these professions is practical and not theoretical While care must be taken not to over-develop the theoretical aspects at the risk of losing the value of the practical, the opposite must also be avoided. It is recognised that some candidates attracted to this work may be personally and practically suitable for it and capable of attaining a reasonable level of academic work, but not able to compete at the top level of University entrance standards. A whole dissertation might be written on the value, practicability and desirability of such a degree course in relation to finances, circumstances, prospects and resulting service. It must be sufficient to state here, however, that a reasonable compromise seems to be to follow the plan for the two year certificate course, but to welcome wholeheartedly those who have had the opportunity of the longer training.

Leaders

All the professions need leaders, but leadership should on no

eeded in
ll pro-
fessions

account be confined to candidates who hold degrees;[1] it should be attained by quality of person and standard of service. On the other hand, it is possible that from among those who had taken this longer training leaders might emerge.

Scheme III, if the most attractive, is then - for the present at least - the least feasible, but should not be discarded completely. Is it possible, perhaps, that ultimately the professional training courses will follow the pattern of this and of Scheme II and that present methods will gradually fall into abeyance?

---

1. There is nothing to prevent candidates trained for the professions by either of the first two schemes from sitting for degrees provided they could offer suitable pre-requisites.

e) THE PROFESSIONAL TRAINING COURSES IN RELATION TO A BASIC GENERAL COURSE

"If professional training and university education are divided, the former will almost inevitably be conducted at a purely technical level, and the latter is likely to be superficial or even perfunctory."[1]

Professor M.F.A. Woodruff (Prof. of Surgery, University of Otago, N.Zealand) Inaugural Lecture in the Chair of Surgery, University of Otago Medical School, 1953.

The problem of the content of the professional training as proposed in this thesis

In Schemes II and III, reference has been made to professional training courses as those qualifying finally for the treatment services. These are planned to cover one year. It is not intended to discuss the content of them in detail here: this could only be planned by training experts in each field. Admittedly there will be a considerable amount to be fitted into the proposed year's course, but it must not be forgotten that in the general course students will have covered a number of the basic subjects, and will have had a certain amount of practical experience. They will, then, it is believed, be better prepared than they are at present to take full advantage of the professional courses.

Again, in the schemes being postulated, the "Houseman's" Year to come should not be forgotten. Is it too bold to suggest[2] that the balance of what must be learned and the experience which must be gained after the basic general course should be spread between the final year of fee-paying training and this "Houseman's" year, and to reiterate that both should be shorn of unessentials.[3]

---

1. The Lancet. Dec.12.1953. p.1219.
2. Even for the professions in which one is not trained.
3. Sir R. Brain - "If we are not to become lost in the increasing complexity of medical science and endless multiplication of facts, we must always keep in mind the need for clarification and simplification by means of general principles." The Lancet, 16.5.1953, p.963. and further - "The immature mind, in late teens requires to be taught principles, and the trained mind, after graduation, then needs to be made familiar with an ever-growing variety of interlocking techniques, whose mastery in turn forces continual reference back to fundamentals." R. Lewis and A. Maude. op.cit. p.213.

These proposals are based on the belief in the need for them

These somewhat radical proposals are put forward because of a belief that this whole proposition is possible and desirable, and in the hope that adjustment could be achieved by re-orientation to the whole concept of training for the supplementary medical treatment services. Underlying these proposals is the conviction that the minimum of four years proposed for the candidates before attaining registration is the amount of time needed to prepare them for the competent fulfilment of their duties in the various professions.

Reference to examinations and registration

The questions of responsibility for the professional training courses, and for examinations, have been raised.[1] It would be possible to dilate at considerable length on both of these but, in view of the negotiations now proceeding for state registration which may also involve these considerations, it would seem out of place to discuss them in detail here.[2] It is not possible, however, to ignore them wholly. The propositions put forward would then be without professional anchorage.

The professions might separately be responsible for professional training

The first suggestion is that each profession should take over entirely the students who apply for entry to it, after the certificate or diploma course, as has been done by the Almoners, until this year,[3] whether the responsibility for training is vested in the professional bodies themselves, or in schools approved by them, or is in the hands of independent educating, examining and registering boards on which the professional members are in the majority. Each profession would, under this proposal, become directly responsible for the training of its students, and for providing theoretical and practical instruction in whatever way were deemed best to achieve the required results. If the "Houseman" year were considered a useful or necessary feature, the professional bodies or the education boards, or the schools recognised by them would, it is envisaged, assist in placing and supervising the candidates.

---

1. See p.156.
2. See Appendix 5.
3. An experimental variation from this method is taking place in certain Universities this year.

r they
ight
in in
e set-
ing up
f In-
titutes
f
raining

The second suggestion brings with it proposals for a far more radical change. It is that the professions, if linked more closely than at present,[1] should set up Institutes of Training[2] for the Supplementary Medical Services in the main universities and/or regional[3] centres in the country. These should be closely linked with the Universities under whose aegis it is suggested that the certificate courses should be run, and with the teaching hospitals and other practical training centres, and should be staffed by teachers of each profession. Students having gained the certificate or diploma would then take their professional training courses at these Institutes, where there might, again, be concentration of smaller numbers for each profession than could be arranged in separate schools with, as in the general course some interchange of lectures and lecturers.

inked
erhaps
ith Uni-
ersities
nd
ospitals

The pro-
posal for
these In-
stitutes
is an
extension
of the
main
proposals

While the setting up of such Institutes may be desirable extensions of the combined schemes[4] proposed it is important to emphasise that they are not in any way necessary to them. It may be advisable to suggest the implementation of the two main proposals of this thesis - i.e. for a basic general course, and for a federation of professional associations - first, and to consider the formation of Institutes of Training as a possible development at a much later date.[5]

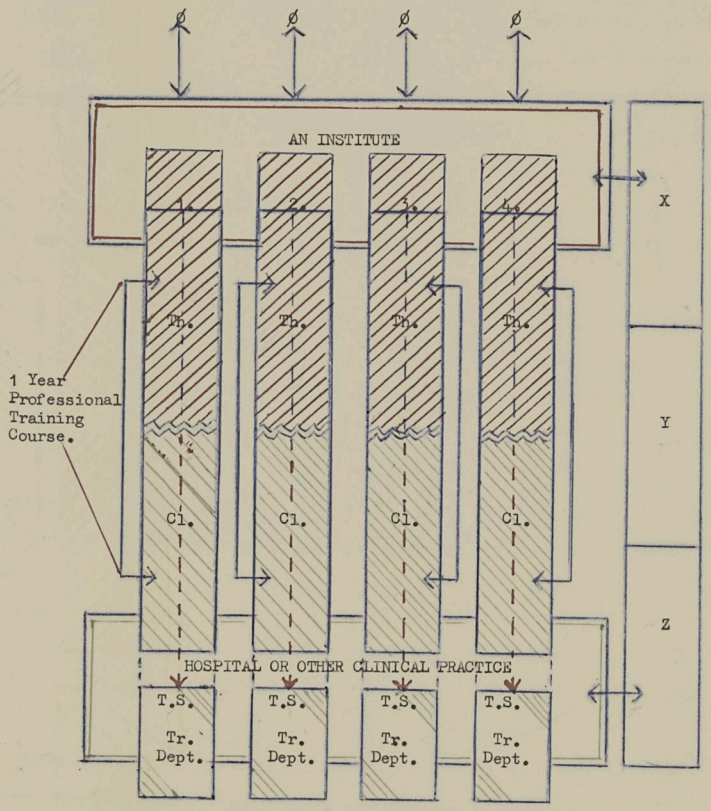
There is no need to enlarge here on the professional training course which might succeed the certificate or degree courses, if they were left in the hands of each separate profession. They would

---

1. Perhaps by the Federation already mooted, and to be discussed at greater length later. See p. 189.
2. See full description of these on p. 181.
3. Ministry of Health or other regional centres.
4. i.e. schemes I, II, III.
5. Were the plan for them to be adopted, however, there would be far greater cohesion in the professional training courses, particularly if a student were to complete both certificate course and professional training in the same place.

presumably be developed on lines adapted from present methods. As, however, there is, it is believed, no exact precedent for the plan for co-ordinating specialised professional training under an Institute, this proposal, even if it were only to be implemented later, should perhaps be amplified further.

DIAGRAM OF PROFESSIONAL TRAINING COURSES SHOWING THEIR LINKS WITH A TRAINING INSTITUTE.



1. = Occupational Therapy.
2. = Orthoptics.
3. = Physiotherapy.
4. = Speech Therapy.
Th. = Theoretical training.
Cl. = Clinical training.
T.S. = Treatment Supervisor.
Tr.Dept. = Treatment Department.

Ø) = Links with proposed University Certificate Courses.

X) = Post-Graduate Courses. Teaching. Research. Clinical.
Y)
Z)

= Indicates Specialist Professional Teacher linking theory with practice, i.e. - Training Supervisor.

f) AN INSTITUTE OF TRAINING

"We may aim higher than we can reach. But if we aim high we shall at least reach somewhere. Our individual and collective responsibility ... grows and will grow. We cannot escape it."

Sir Lionel Whitby.
Regius Professor of Physic,
University of Cambridge.
Presidential Address,
First World Conference
on Medical Education,
August 1953.[1]

Classification of the term "Institute"

It is believed that proposals for the kind of Institutes to be suggested here constitute a considerable innovation. The term "Institutes" is used for professional associations such as the Institute of Almoners, the Institute of Engineers, etc. The Institute to be proposed here is in no way comparable: its closest resemblance is perhaps to Institutes of Education, but again it does not conform in all respects to these. The term "Institute" seems, however, appropriate for the form of organisation to be described.

For this particular type of Institute there are three possibilities:-

Various possible forms of Institute

(1) Institutes to correlate otherwise separate courses of training of a selected and allied group of supplementary treatment services. These would be set up by the professions themselves, or by the proposed Federation. They would be located in towns or cities where several professional courses are run and where combined lectures could be organised, or in certain areas or regions where they could co-ordinate work in the different and possibly more widely distributed schools without exerting any particular control over them. In neither case would they appear, however, to have any distinct function or to offer any advantage over the possibility of direct collaboration between the schools of the various professions themselves.

(2) Institutes set up by the professions, or the Federation of them, to deal only with the professional, theoretical and practical training courses and the "Houseman" years. Candidates coming under their aegis would, it is expected, have taken the courses proposed under Schemes II or III.[2]

---

1. British Medical Journal. 29.8.53. p.454.
2. See diagram facing p.161 'P' and 'H'.

(3) Institutes with the same functions as those described under (2) above, but set up by or under the aegis of Universities, if they, the Universities, intended to become responsible for the professional sections of the various forms of training.[1]

The responsibility of Institutes

If the principle of Institutes being responsible for professional training were accepted, any one of these varying forms would, it is assumed, be responsible for the specialist training courses of the professions represented in them, under specialist supervisors. They could also cater for post-graduate courses, particular to each profession only, or for ones, as is undoubtedly both possible and desirable, of common import.

Post-graduate courses

The possibilities of implementing the first and third possibilities are so slight however, that they need not be pursued. The second is of greatest relevance to these proposals. As has been indicated, this Institute might be set up by direct and local co-operation between the professions but to recommend this would be to presuppose a degree of close liaison and goodwill which at present does not exist, largely because of their method of development and of circumstance. To achieve a satisfactory organisation greater links of co-operation, of common interest and common service must first be forged, through some organization such as the proposed Federation.[2] The establishment and organization of the Institutes could then be a part of the responsibilities and purpose of such a Federation.[3]

Discussion of the second form of Institute

Institutes might be set up in cities where University departments giving courses for the

If one or more of the Universities were to organise certificate courses for the supplementary medical treatment services[4], an Institute might also be set up at each centre, but this, as has already been stated, would not be a necessary corollary for the completion of professional training. Nor would it be necessary, although it might at times be desirable, for a student who had taken a certificate

---

1. This last proposal would perhaps be the least likely - and possibly not entirely desirable from the standpoint of the professions - as it would imply handing over some of the professional responsibility for standards of training.

2. See p. 189.

3. Perhaps of an Advisory Training Council within the Federation. See p. 190.

4. i.e. those described under Schemes II or III.

Treatment services

or diploma course at a particular University centre to take the professional clinical course under the aegis of an Institute at that same centre. It might be, too, that Institutes at different centres might have special facilities for training in certain aspects of professional work, remembering always that specialization proper is planned to take place only after qualification.

Form and location of Institutes

An Institute of the type envisaged would preferably be centred on one building, or buildings in close proximity. It might otherwise be an organising or co-ordinating entity, based at the most convenient and accessible centre dealing with training establishments and buildings more widely distributed. This latter might be necessary in the initial stages, where professional training centres are placed rather far apart in the same city or district, but the former would undoubtedly give the best opportunity for combined clinical lectures and demonstrations.

Problems of co-ordinating and staffing

The question immediately arises - "Who should co-ordinate and organise the courses in such an Institute?" It is important that the emphasis should be on these two factors. Because it is unlikely that, among professional personnel, there would be any qualified in all the specializations, it would seem best, (as is proposed for the University basic general courses)[1] to nominate a Director from among university graduates, with suitable qualifications but no particular professional bias.

The problem of finding teachers from the professions

It must be remembered that one of the reasons for the difficulty in getting able teachers and teaching administrators from the professions themselves is that most candidates enter these professions to <u>treat</u> and not to teach. Their "patient-interest" is their foremost consideration. If they had wanted to teach, they would almost certainly have gone into the teaching profession. Many are willing, however, to take students for practice, and to give them clinical lectures; to demonstrate their very real skill

---

1. See p.173.

and to inspire in their art, but few are willing to be academically and administratively detached from practice and to devote themselves wholly to students' needs. Nor are many, at present, equipped to do so. Is it not far better, then, to give to the skilled professional therapist the direction of the clinical theory and practice and to leave the organization of the academic and administrative aspects of training in the hands of those likely to be more expert and interested in them?

A possible danger in removing professional influence from early training

There is likely to be some outcry against this proposal to remove any of the training from direct professional influence. The crux of the question is - "what is the professional training intended to achieve?" Are occupational therapists, orthoptists, physiotherapists, etc., to be professional automata, who cannot see beyond the loyalties and confines of their own professions? A further challenge will be brought:- "In spite of the separate courses of training under specialist professional teachers as run at present can it be said that the services are manned by automata now?" Certainly the best of the workers can never be accused of this. In any case, circumstances have changed, radically and suddenly. Re-organization is essential. Is there not a call for wider perspectives and for greater pliability in approach? Even if the skills are different - and they have been shown to be so - do their bases and the methods of acquiring them really differ so widely?

Supervision in each professional skill

To return to the staffing of the Institute,[1] it is proposed that, in addition to the director[2] already mentioned, there should be a supervisor[3] for each professional training group,[4] the supervisor (and/or deputy) working part-time in a treatment department,[5]

---

1. See Appendix 6. p.230.
2. See Appendix 6. p.230.
3. See Appendix 6. p.230.
4. Where necessary these supervisors should have at least one assistant or deputy.
5. See diagram facing p.181.

Link between theory & practice

thus creating the vital link with clinical practice.[1] The allocation of theoretical and clinical work of these professional specialists would depend on the size of each student group.[2]

Good clinical practice essential

The main-spring of successful training is good clinical work. Liaison with treatment departments therefore needs to be agreed and arranged on an official basis. It would be an essential for good practice that the hospitals and/or treatment centres in the vicinity of an Institute should view it as a part of their responsibility to assist in, and provide facilities for, student training. At the moment a rather distressing state of affairs exists. There is criticism - at times quite justified - of some training methods and of the "end product" but there is not, in the same ratio, the enlightened co-operation and help given to remedy the situation. It is well recognised, and has surely been stressed in the foregoing pages, that none of these skills can be taught in theory only. All accept the fact that a basis of theoretical knowledge is essential, and many feel that a wider "philosophy" is needed to balance this, but the theory is of no use, nor is the "philosophy" complete, unless both can be guided into the channels of good practice. The combination and right use of these is the skill, and training in skill can only take place in a treatment department where proper provision is made for student training. In some cases "training" is offered, but it is in effect a method of getting extra help.[3] It is true that no students should be observers only; they should be supervised workers, but at present there is a danger of the work being unsupervised and monotonous, or of its being unsupervised with little therapeutic aim or result. Although there may be good reason

Use and abuse of student help

---

1. "For neither the Husbandman can prove skilful nor the Pilot cunning, which only discourse often and practise seldom." The Flowers of Celsus. Petrus Pomarius Valentinos. London 1612. p.3.
And see diagram facing p.181 - Tr.s - Note that, although there is a Treatment Supervisor - (T.S.) - there is co-operation between both.

2. See p.188 Fn.1.

3. At little or no cost.

for it, it is distressing to hear of hospitals where little supervision or teaching is given to students, and of others, refusing to increase their staff because there are students working there. In all hospitals or treatment centres[1] which take students there should be some allocation of supervisory training personnel, and financial or other adjustments made for this with the training centres.

Supervision of students in clinical training

In the proposals being put forward here it is suggested that the Institutes, (as the unit of the Federation responsible for training), should act as the organisers of the theoretical[2] and clinical courses.[3] It is true that, if training courses remain as at present,[4] (with slight modifications) or if the professions were to take complete responsibility for training after the courses proposed in Schemes II and III, to the exclusion of the Federation and/or Institutes, an adequate policy for clinical practice would still need to be developed with the proper authorities. If, however, the authorities in the treatment centres are approached separately by a variety of bodies interested in student training, each with their own requirements, rules and professional problems, is it not likely that less will be achieved than if the problem and requirements are discussed first by the professions in some form of Federation and a combined approach made? The common factors[5] could be presented together in the form of one plan with necessary variations rather than a number of plans - alike, yet unalike. If then hospital and health authorities were to negotiate with a Federation (or an Institute) presenting some such combined policy, with clear indications of specialist professional needs, would an adequate clinical training scheme not be easier to plan and to achieve? A combined approach of this kind would certainly help to bring home to the hospital and treatment centre authorities the need for them

The confusion of a multi-professional approach re training policy

---

1. These would include hospitals, schools, etc.
2. }
3. } See diagram facing p.181.
4. Scheme I.
5. And by these are meant essentially general principles.

to recognise their training responsibilities.

The danger of economic pressure obscuring the need for training

While there is economic anxiety and pressure in the health services and in the educational field, practical - in this case clinical - training as such tends to be overlooked. This is likely seriously to undermine investment in theoretical training and will show its effect at a later date in lack of well-equipped treatment personnel. As has already been indicated, economic problems have to be faced but they will never be solved by false economies, or misplaced emphasis. There will be discussion later of a proposition for relieving some of the financial pressure without trespassing on the students' theoretical training or clinical practice.[1]

The Houseman year

It has been proposed, then, that the Institutes should be responsible for professional theoretical and clinical training, under specialist supervisors, in a course covering one year.[2] Mention of some connection between the "Houseman" year and the professional training courses has been made. This "Houseman" year could be arranged directly between employer and candidate, the former making contact with the applicant through open advertisement. Advertisement of vacancies would, in fact, be the best method of making contact with candidates, but it would seem desirable that the authorities of the Institute should guide the candidates in a suitable choice of Housemanship, in line with their interests, qualifications and particular needs. Responsibility here would, it is suggested, be more advisory - and perhaps partially supervisory - than directive.

The suggested responsibilities of the Institutes for post-graduate training

In addition to the professional training responsibilities of the Institute mention has also been made of post-graduate training. It is not always easy for professional bodies to organise post-graduate training courses, and to find premises and lecturers for these. Here, then, the Institutes could be of use. It is envisaged that any one profession might wish to arrange post-graduate

---

1. See p. 192. Extension of the Service.
2. Divided, it is suggested, in the ratio of three-fifths theory and two-fifths practice. Each student will have already done 6 months practice and there is the "Houseman" year to come.

courses for its own members, or to provide correspondence tuition for them. What better centre could there be for these than the professional Institutes? Certain courses might be of common interest, or might have a common "core" of interest, with specialist sub-divisions. If, too, as has been proposed, various Institutes were situated near certain particular treatment facilities they could offer special advanced training facilities.

Taken as a whole, these suggestions for the establishment of Institutes of training might result in giving far wider understanding and experience to members of all professions. It is envisaged that they would be small units, dealing with no more than about 70 - 75 students each.[1] Their structure and function would enable them to be somewhat intimate entities within the larger professional organisations and the proposed Federation. Pursuing, then, Scheme II, which has been made the main theme in Part III of this thesis, it is suggested that the professional training year, the "Houseman" year, (to a certain degree only), and the post-graduate courses of training might come under the aegis of an Institute, and that there might be a series of Institutes established at geographically and educationally suitable centres throughout the country. It is further suggested that these Institutes should be set up by a Professional Federation now to be discussed.

---

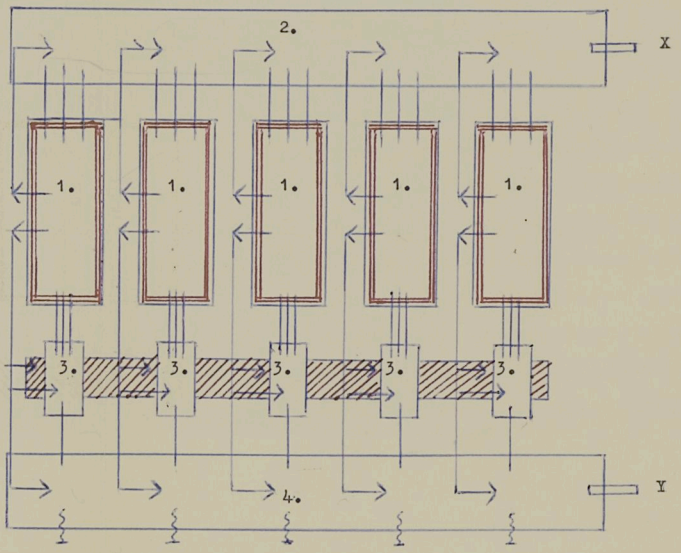
1. Perhaps in the following proportions -

Physiotherapists	30
Occupational therapists	20
Orthoptists	8
Speech therapists	10
	68

The University basic courses would deal with about double this number. See p. 173.

PROFESSIONAL ASSOCIATIONS AND THEIR LINKS

with A FEDERATION
EDUCATION AND EXAMINATION BOARDS
A STATE REGISTRATION BOARD
(AN INSTITUTE - or INSTITUTES of)
PROFESSIONAL TRAINING COURSES



1. = Professional Associations
2. = Possible Federation
3. = Professional Registration Boards
4. = State Registration Co-ordinating Council
= Professional Representatives on various boards (numbers to be decided)
= Professional links with each Professional Association
= (An Institute - or Institutes of) Professional Training Courses
= Representatives of other interests on State Registering Boards and Education and Examination Boards (numbers to be agreed)
Y = Chairman of Registering Board
X = Chairman of Federation

g) A FEDERATION OF SUPPLEMENTARY TREATMENT SERVICES

"Provided no strict constitutional pattern is imposed on unwilling states, there is room for every form of experiment in greater ... unity."

B. Ward.
Policy for the West.
(Penguin Special)
London 1951. p.240.

The Federation

Federation would meet the need for inter-consultation between professions

The general outline of this has been given in Part II, under the "needs of the professions".[1] It remains only to describe its form and function. The reason for proposing a Federation of Supplementary Medical Treatment services is the increasing need of the professions for inter-consultation. At present there have been occasional meetings of such groups as were inclined or wished to consult together. The arrangements have been informal, the meetings and attendance spasmodic, and the records kept of them, variable. Some will argue that this informality and lack of binding records has advantages. This may be true, but it would carry more weight if the professions were dealing with informality in other spheres. Can they, however, afford only these loose links in the face of far more highly organised systems?[2] It is clear that, on the whole, they cannot; hence these proposals.

Voluntary basis emphasised

It is suggested that those in the supplementary medical treatment services who wish to do so should unite voluntarily, in the interests of their common problems and links. It is further suggested that this voluntary federation should have no powers over the member professional bodies, unless these were agreed by them, and the wisdom of this is doubtful - and that the professional bodies so associated should be self-governing as at present.[3]

---

1. See pp.146-147.
2. All the administrative ramifications of the Health Services, the Whitley Councils, Trade Unions, etc.
3. There is precedent for this form of independence in the World Council of Churches.

These bodies would elect a given number of their members on to the Federated body. No decision, however, would be taken by the Federation on behalf of the member bodies unless these had given it specific powers to do so in some specific case or cases.

rganisa-
on and
nctions
iscussed

One point should, perhaps, be made particularly clear. It is envisaged that on no account should statutory or other bodies expect to negotiate with the Federation on matters pertaining to a particular member profession. They would be expected to negotiate with the professional body of the profession concerned. If, however, some matter of combined interest or policy were under consideration it would have to be made clear to the statutory bodies to which, Federation or Professional Associations, the first approach should be made. It is possible that all would agree that approach should first be made direct to the member bodies, and only by their agreement could any matter be negotiated at Federation level.

The Federation, in addition to acting as a forum for professional problems, might be charged with the duty of setting up an Advisory Training Council[1] for its member professions, with representation from all the professional bodies. This might co-ordinate training courses, including, as has been mentioned, theoretical and practical work, and negotiate general principles for clinical practice.[2] There might, through this council, be consultations on problems of supply and demand, conditions of service and matters of general educational policy. The council might also concern itself with general post-graduate training in all fields.[3]

Another function of the Federation might be to stimulate private practice in all professions concerned, by encouraging the setting up of combined treatment centres. The Federation could also agree to co-opt, or call upon, specialist help, outside its own .

---

1. See p. 182.
2. Perhaps through Institutes already described.
3. Again, perhaps through Institutes.

professional members, for matters on which all the professions would wish to have advice and in which all were concerned.

The Professional Bodies, and their relationship to a Federation.

The functions of the Professional Bodies

It is impossible to give a clear picture of the possible functions of a Federation without outlining those envisaged for the Professional Bodies, which remain the most important and responsible entities in relation to the professions. Their functions as indicated here would continue to follow very much on the lines of their present constitutions. There might be slight variations, and in some cases it is likely that there will, or must be, to meet current trends. These variations would probably be in arranging for rather more representation of other interests on their various committees than hitherto, but this is only natural with expansion in all spheres, and the need for it is based on already accepted precedent. The suggested functions of the professional bodies can, then, be stated as follows:-

(1) Each profession should, as now, have its own professional association/s, and should be responsible for the ethics, discipline, standard of service and other matters related to the profession.

(2) Each profession should, as now, have its representative/s on all negotiating bodies (e.g. the Whitley Council), and should never be subject to representation by any other profession in matters relating to it.[1]

(3) Each profession should have its own Education and Examination Board, preferably separate from its Governing Board/s. Members of the profession concerned should be in the majority on that Education and Examination Board. This Board shall keep a list of qualified practitioners to submit to such State Registration Council as shall be devised in the negotiations now taking place.

It is clear, then, that, even if there were a Federation of Supplementary Medical Treatment Services, the Professional Associations would continue to have their proper autonomy and responsibility.

---

1. See Appendix 5.

h) FURTHER CONSIDERATIONS RELATED TO THE FOREGOING PROPOSITIONS

"Even when we have in mind the process from a lower to a higher level of value, any significant assertion on the matter must be made with qualification."

W.G. de Burgh.
The Legacy of the Ancient World.
London (Pelican) 1953.
Vol.II Appendix III p.556.

1. Recognition of standards, qualification and registration.

With all the discussion on training, covering University links, professional responsibility, Institutes and the like, some clarification is needed with regard to qualification. Who, in fact, is to issue the diploma of professional efficiency to the qualifying candidate?

This, surely, is the responsibility of the professional Education and/or Examination Boards of the professional bodies themselves or of independent boards[1] with a majority of professional representation.

There will, on these boards, be representation of other experts concerned with standards of training and qualification, and with the requirements of subsequent employment, but, as is proper, the experience and judgment of the professional experts, tempered by that of these others, should be the deciding factor in granting professional diplomas. The lists of successful candidates would then be presented to the registering authority.

2. Extension of the Services.

The insertion of this subject may appear a digression, but it is, in fact, necessary for the conclusions to be drawn. "Dilution"[2] is not, however, the right word to use for the intention of the proposals is not to weaken, to diminish or reduce, as the dictionary

---

1. See p.191.
2. See pp.125, 132, 143.

definition of "dilution" indicates. It is to "re-inforce", defined as "to strengthen or support by additional men ... by increase of numbers."

This leads on to the question - is the number of candidates available and qualifying each year adequate to meet the needs in all treatment spheres,[1] and to a second which should, perhaps, be answered first, - are those who are qualified being properly used?[2] If not, and there is considerable doubt in the matter, have the professions been consulted and asked to help to rationalise the position?

With regard to the adequacy of the numbers qualifying, an immediate and unthinking answer might be "No". On the other hand, as the Cope Report stated, there is a distinction between "need" and "demand".

> "By 'need' is meant the numbers required (by the National Health Service) to give the public a full service in all parts of the country. To distinguish it from 'need', 'demand' must be related to a particular time or period of time and may accordingly be defined as the number of vacancies that the employing authorities are likely to seek to fill at present or - say - within the next five years."[3]

This 'demand' has certainly to be controlled by economics but these should not be a cover for whim or prejudice.[4] The answer to the first question is that there are undoubtedly not enough candidates to meet the 'needs' of the public. But is the supply of suitable trainees large enough to meet the 'demand'?[5] If not, (and this is doubtful), how can the value of the treatment services be augmented without undermining the skills which are their value? Lowering standards throughout a profession with the intention of augmenting numbers will not necessarily meet the 'needs' or 'demands' more efficiently, particularly as the call is for better equipped,

---

1. These considerations must, and do, not apply to the National Health Service only.
2. See p.127.
3. Reports of the Committees of Medical Auxiliaries, p.3.
4. See p.124 re "depression or suppression".
5. And accepting that candidates are able and willing to take posts in any area, which, for a number of good reasons, they are not. See p.131 re % of candidates available for all services.

wider visioned and more responsible workers.[1] Although it is said that, while a

> "profession pursues its aim, it must be careful not capriciously to oppose means of increasing the effectiveness of its existing membership,"[2]

if "re-inforcement" is to be recommended does the proposal apply equally to all the professions, and should, and can it be introduced in each? If, too, it is introduced, is there the danger of losing the real essence of the work of these professions - of extending the technique but not the skill? Is this desirable when, at the same time, the medical profession and the requirements of the patients are calling for improved service from the supplementary medical treatment personnel?

It is clear that re-inforcement of the kind to be postulated might be more successful and more welcome in certain professions than in others.

In Occupational Therapy some form of "help" could be used, perhaps, most effectively. Assistance could be given with the preparation of work, with clerical work, book-keeping stock and record-keeping, and patient transport from ward to workshop etc. This refers to help on an unskilled basis. There is also the possible extension mentioned in previous discussion,[3] that of the occupational specialist, working under adequate therapeutic supervision.[4]

In some physiotherapy departments, helpers, in the form of "orderlies" are already used for general departmental and clerical duties. This, however, is the full extent of their use, but does not debar them from supporting patients when walking, helping certain of them with undressing and dressing, all under supervision,

---

1. See p.142.
2. L.Farrer Brown. The Almoner. p.9.
3. See p.105.
4. Note - no Occupational Therapist professes to be an occupational expert in an enormous variety of diverse fields. The emphasis is, as has been said, on therapy, and he/she should be responsible for the therapeutic application of all occupations.

and as the need arises. They may also assist with the care of equipment, etc.

In orthoptic departments there seems less need for this type of general help - unless it be for clerical and/or receptionist work, and the care of equipment. It is unlikely that speech therapists, while again needing clerical help, can use any other form of re-inforcement except in the help they can gain from the parent or teacher in selected cases.

From careful observation of the work in all these professions, it is apparent that dilution of the professions themselves in the form of lower grades of operators is not what is required. This is not said with any intention of protecting or defending them. It is said in the sincere belief that some form of augmenting the services must still be found, and in the belief that the "health exchequer" can never afford to staff all its departments with only the most highly qualified and paid personnel: there must be some form of rationalisation. It is hoped that this admission, which it seems fair to make, will never be quoted out of context nor used as an argument for improper "dilution" of the kind just repudiated; it applies only to the new term - "re-inforcement".

The instance may be given of dilution of the nursing profession - with the various levels of State Registered Nurses, State Enrolled Assistant Nurses, Nursing Auxiliaries, Ward Orderlies and Clerks. The cases are not, however, parallel. One of the chief differences is the numbers in the nursing profession compared with those in the services under discussion. There is, perhaps, room in the numerically larger profession for these different grades or levels. To attempt to develop levels of skills other than those which occur in the course of increasing experience would, as can surely be seen from the accounts of the smaller professions already given, only produce more sectionalisation, more "atomisation".[1] What, then is

---

1. See Preface, p.iv.

the solution?

Could there not be a group of Health or Hospital "Aides" appointed to hospital and/or treatment centres, who could be selected, or opt, for duty in any department, including that of nursing. These "aides" would be recruited from all ages, covering men and women, boys and girls.[1] Such vacancies might form admirable openings for the more practical and less academic school-child from any type of school, including the secondary modern school,[2] for the unskilled housewife with no family or for the older man interested in full or part-time work in a hospital. At present many hospitals have tried as many experiments, but there is no definite policy in regard to general departmental assistance of this kind, except, perhaps, in the nursing field, where there is the definite category of Nursing Auxiliary, (untrained).

It is suggested that this scheme should be extended to cover other departments. Candidates should be appointed as Hospital or Health Services "Aides",[3] without necessarily being allocated to a particular department. They should be engaged by a selection com-

---

1. Minimum age 17.

2. In discussing this plan with an experienced headmaster from a Secondary Modern School, the opinion was expressed that it would furnish encouraging openings, particularly for girls, whose opportunities are not varied. The comment was made that these youngsters had, on the whole, little ambition: they wanted to live near home, marry near home, and after having looked after their young families, might want to take up some - even part-time - work near home, but they did not all want to be office workers or shop-girls. Many had had practical training in clerical work, hand-crafts and the like, and some were genuinely interested in the possibilities of hospital work. It was agreed that certain standards of ethics and service would have to be inculcated and/or expected of them, but the headmaster was of the opinion that, from the best, these would be forthcoming.
   And see Lancet, October 30, 1948, p.698. 'Ordinary Girls'. Review of a study "Rising Twenty" by P.Jephcott, of 100 girls ranging from 17 to 21. She indicates that "Nursing, which might, if it offered more freedom, prove an attractive alternative" to factory or shop work, "they reject because they believe it would ruin their prospects of marriage.

3. Or - if their function could be extended to fields other than nursing, Hospital or Health Service Auxiliaries. The advantage of this extension would be the fact that there is already a negotiated salary scale, etc.

mittee[1] of the heads of the departments to which they were likely to be sent, and the head of the particular department to which the candidate was ultimately allocated would be that candidate's departmental chief. There would have to be certain parallels in entry requirements and conditions of service for all in this group, and it is suggested that some salary scale such as that recently published by the Industrial Court of the Ministry of Labour for Nursing Auxiliaries should operate for all of them.[2]

One essential of the scheme would be that there should be no impingement on any professional title - i.e. an "Aide" appointed to an occupational therapy or orthoptic department would not take the department or professional name. He or she would remain a Hospital or Health Service or "Aide" although allocated for the time to a particular department. "Aides" could apply for reallocation if vacancies occurred in other departments.

It is suggested that all Aides should receive a form of simple "in-service training"[3] for the work of the department to which they were allocated and that each department should have on its staff, or connected with it, some person qualified to give this. Some form of intraining would be particularly important in the case of younger recruits. The best of them should have the possibility of entry to the professions themselves, studying perhaps, a minimum of essential subjects at night-schools. Some plan for upgrading[4] would be a necessary provision: the openings would otherwise carry no prospects for those[5] likely to be interested in, and capable of,

---

1. Selection would be essential for the success of the scheme, and there should be no arbitrary allocation.
2. See Appendix 8 (b).
3. See Appendix 8 (a). One stipulation should be that no "Aide" or Auxiliary should work or receive "in-training" in any hospital or treatment centre where students are being given the clinical part of their professional training course. (Note: the G.N.C. puts an embargo on training student nurses and pupil assistant nurses in the same hospital.) Ref. Nursing Mirror. 3.7.53. p.898.
4. See Appendix 7.
5. These would be only the few.

advancement. This in itself would be bad for the group, and wholly contrary to the fundamental psychological tenets of the professions themselves.

If, then, "re-inforcement" there must be for some of these professions, it would seem that this form of general help would offer the best solution. It would also make recruitment possible from among candidates who, at 18-plus appeared to have more practical and less academic qualities, but who with greater maturity and with increased interest might develop capacities for the required study and qualifications.

3. Recruitment

The mention of this seems to suggest the necessity for a campaign. It is no use campaigning, however, if candidates are not available, and it has been suggested that, of the type at present called for, i.e. the candidate who has passed a General Certificate of Education in a given number of subjects, there are not likely to be enough.[1] How best can the problem be remedied? Extension of the services by some method such as that postulated might help to solve it. The position would then appear to be:-

(A) That those equipped personally, academically and practically at the end of their period of education would proceed to immediate training, in one or other accepted form, Schemes I, II, or III.[2]

(B) That those not so equipped in one or more facets might still proceed to hospital or health work, (unless found personally unsuitable), might serve it well and, of these, the most capable, enterprising and ambitious might be given the opportunity of attaining professional status.[3]

By calling upon these two methods of supply candidates would be recruited from a much wider field. The services need not, however, by any of these suggestions, lower their standards of treatment for those who require their most expert skill. Much would depend, however, on entry requirements for training, and, perhaps most of all,

---

1. See p.132.
2. See diagram facing p.161 and plan facing p.199.
3. See p.197 et seq.&Appendix 7.

ENTRY REQUIREMENTS

	OCCUPATIONAL THERAPY	PHYSIOTHERAPY	ORTHOPTICS	SPEECH THERAPY
Present Entry Requirements.	Gen: Cert: of Education. Five Subjects:- 4 passed at Ordinary Level, of which 3 should be English Language A Science subject A Fine Arts or Craft ∅ subject. and:- English Literature or History at Advanced Level - (desirable)	General Certificate of Education. Minimum - 4 subjects at Ordinary Level - to include:- (a) English Language (b) One or more of:- Physics Chemistry Chemistry with Physics General Science Add: General Science or General Science 11 Biology Zoology Botany Geology Elementary Physiology (If candidates have not passed in Physics & Chemistry, or Chemistry with Physics, they must submit evidence that they have covered the latter syllabus & reached the standard for a pass at Ordinary Level.)	Gen:Cert: of Education. 4 subjects at Ordinary Level, one of which should be English Language & Mathematics & One subject from the General Science Group- i.e. Biology Physics or Chemistry	Gen:Cert: of Education. 5 subjects at Ordinary Level, one of which must be English Language (Desirable that one shall be at Advanced Level.)
Suggested Requirements.	MATRICULATION - Where this is required of students for the Social Science Certificate Courses -			
OR:-	Human Biology English Language + 3 or 4 more, excluding ∅.	Human Biology English Language 1 from (b) above + 2 or 3 more.	Human Biology English Language Mathematics 1 from Science Group + 1 or 2 more.	Human Biology English Language + 3 or 4 others.
	At least two subjects should be at Advanced Level.			

NOTE

Analysis of entry requirements for University Diplomas or Certificates (non-graduate) - in Social Studies reveals the following to be the usual requirements for entry:-

1. In some Universities - (3 +)
   "Candidates .... must satisfy the Senior Tutor in Social Studies that they have received a good general education" (nothing specified);

2. In some - Matriculation - or its present equivalent, is required;

3. In some - 5 subjects in the General Certificate of Education, of which 2 or 3 must be at Advanced Level.
   (Consideration is given to older and/or special cases).

1952 (xiv)

on careful selection of candidates. This last is vital, and on this, and on the loyalty of the employers[1] the success of these proposals would depend.

4. Entry Requirements.

These may vary for the two categories discussed in the preceding section.[2]

Taking group (B) first, reference to the accompanying diagram, section X. will show the standards required of candidates entering the various professions at present. Section Y. indicates those proposed for candidates applying for the certificate course suggested in this thesis under Scheme II. It will be noted that Human Biology and English Language are common to all groups, but that, even at this stage, there is what may be termed, some professional bias. This, however, is no more than would be required of a candidate applying for entrance to a particular faculty in a university.

Although, ideally, all candidates might be required to offer at least one subject from the science group, other than Human Biology, i.e. Physics and/or Chemistry, it has been felt important not to tie all the applicants too closely to a similar series of set subjects. Schools have staff and organising problems, and candidates interested in the welfare services might quite readily apply for training for one service if, through lack of pre-requisites they were debarred from another. If all pre-entry requirements were the same, they might find themselves debarred from all. Some flexibility is called for, too, in the varying needs of the services for which the basic general courses are designed.

The essentials are for an adequate education, and for prevention of specialization at too early a date. If candidates could, in

---

1. See p.125.
2. On Recruitment - (A) and (B) see p. 198.

addition, offer subjects[1] listed as "desirable extras",[2] many of which could be taken at school, credit could be given for these.

The pre-entry requirements for group (B) are based, first, on successful work as the suggested "Aide" for 3 years, together with recommendation for further training from the supervisor/s of the department/s in which the candidate has worked. After an interview arranged by the training authorities in the chosen profession, in conjunction with those of the certificate course described under Scheme II, and after any tests required, the candidates would have to provide evidence of having passed the General Certificate of Education at Ordinary Level in Human Biology and English Language, and of having taken courses to that same level, (even if not taking or passing the examination) in the subjects listed as necessary for entry to each profession.[3] It would be imperative to assess all candidates on their merits and to be sure that they had the qualities to meet the requirements of, and benefit by, further training.

It is suggested that these candidates should be admitted, then, to the two year certificate course, but, to enable them to concentrate more on study, it is proposed that credit should be given, (in recognition of their work as "aides"), for $\frac{2}{3}$rds of their practical work. This 2 year course should then be followed, as for other candidates, by the year of professional training and the "Houseman's" year.

Although training finances are to be dealt with in another section, it may be well to mention here that it is envisaged that provision should be made for training grants[4] for those who needed them.

5. Selection

Consideration of this has come last. The reason is that it

---

1. Some of them non-academic.
2. See Appendix 3 (d).
3. See Appendix 7.
4. See pp. 224 (Appendix 3e) & 231 (Appendix 6).

has been necessary to discover from all the foregoing data, the type of person needed in these various services. Reference has been made to this in general terms on pages 95, 96 and 97, and, from the description of the services themselves it may be judged that there will be differences in the personalities and interests of candidates.[1] That there should be selection, and very careful selection, is of paramount importance, and no statement that this is not the case in other services can be a useful or proper argument against it. How should this selection, then, be achieved?

It is suggested that it should be primarily in the hands of professional experts themselves, and it is further proposed that those entering for the University certificate courses, should these be instituted, should be so selected. A selection board representing all interests might be set up to interview and examine the candidates. Intelligence or dexterity tests as such will prove little on their own, but it is possible that after selection, checking of abilities by some tests such as the Matrix and Word Association tests might prove valuable. The main factors of selection should always be personality, particular interests, and adequate academic and practical capacities of the candidates.

A probationary period is a further essential, and this should include a period in one of the treatment departments. After this probation, and after further theoretical and practical tests and a personality report, acceptance for training could be confirmed.

---

1. And see Appendix 3 (c) for list of personal qualities required of candidates applying for training in each profession.

i) CONCLUSION

> We have been "committed to a social exploration far ahead of the bounds mapped out by any previous group of adventurers ... What we have somehow to do is to build up in our imaginations a picture of one common situation so lively and so accurate that we can respond to it wittingly and effectively. We have to recondition ourselves to respond differently to new situations even though their conspicuous features do not change, and thus to change our habits without losing them."
>
> Sir G. Vickers.[1]
> The Siege Economy
> and the Welfare
> State of Mind.[2]

The survey of the histories of the services, incomplete as it is, the appraisal of their position in the social framework of today and the study of precedents in the establishment of other professions all lead to the belief that there is a need for these services to re-orientate themselves and to meet the new conditions with a realism and a liveliness which will add vigour to their professional lives and will extend their value in the treatment sphere. That this should be in the exact terms postulated here can never be expected. Nor is it.

It has been argued, however, that the essence and elements of this seemingly necessary change could be brought about by the inauguration of a combined basic general course for the personnel of allied supplementary medical treatment services, and that, at the highest level of professional interest and policy-making, and with the fullest sense of professional responsibility, a federation of these same services might be formed.

The factors of recruitment, and training of personnel, of prerequisites and selection, and of expansion of the services are not subsidiary to these propositions. They are closely involved with

---

1. Member of the National Coal Board and the Medical Research Council.
2. From an address entitled "Background to Management" delivered at the opening of the autumn conference of the British Institute of Management. Nov. 1952. The Lancet. 27.12.52. p.1268.

them, and have been discussed in relation to them. The consideration of a combined institute of professional training is, perhaps a step ahead of the most urgent needs, but, if not acceptable or feasible at present, (indeed, of all the suggestions this is likely to be the most controversial), the concept may have in it the germ of some form of professional training co-operation which may bear fruit at a later date.

The final and unanswered questions are, then, - have the professions, singly or collectively, the capacity or wish to recondition themselves? Do they recognise a need for this? If so, and if these propositions can offer any contribution to this reconditioning, the exploration and the proposals of this modest "adventure" will, perhaps, offer a basis for further discussion.

APPENDICES

List of Appendices

1. Important dates in the development of the techniques and services under survey.

2. A Glossary of technical words as used and/or interpreted in this thesis.

3. General information relating to each profession under survey.

   a) A list of schools.

   b) A syllabus of training for each profession.

   c) Personal qualities required of candidates applying for training in each profession.

   d) Desirable extras for entrants to the various courses.

   e) Present training fees.

   f) General professional fees.

   g) " " salaries.

   h) Nos. of members of certain professional Assns.

   i) The numbers in each profession employed in the National Health Service.

   j) Post-graduate facilities available in each profession.

4. The grouping of the professions under the Whitley Council Machinery.

5. Proposals for the divisions of groups for State Registration and suggestions for the constitution of the Registering Councils and Boards.

6. Financial considerations associated with the proposals contained in this thesis.

7. A plan which would enable candidates without the pre-requisites listed for those in Section (A), page 198 to qualify professionally.

8. Notes on the proposal for Hospital "Aides".

9. Description of the optional subjects proposed in section 1 (b) of Scheme II. p.169.

10. Brief discussion of other Services associated with those under survey, and reference to the relevance of the proposals made in this thesis to them.

11. A list of statutory and voluntary services with which those under survey come into contact.

12. Bibliography.

Appendix 1.

List of Important Dates.

O.T. = Occupational Therapy

Or. = Orthoptics

P. = Physiotherapy

R.G. = Remedial Gymnastics

S.P. = Speech Therapy

G. = of General interest - influencing the development of some or all services.

Important dates in the development of the techniques and services under survey

Period A. Before 600 B.C.

	Ref. to tech. of.		Page
c.1400 B.C.	O.T.) P.) R.G.)	Aesculapius, founded temples near healing springs; gave treatment by 'gymnastic exercises, baths, unctions' 'with songs, farces and music'.	10
" " "	O.T.	Chiron used music as a cure.	10
" " "	P.	Melampus used cold bathing as a cure.	11
" " "	P.	Hecate used warm baths as a cure.	11
c.1184 or 684 B.C.	O.T.) P.) R.G.)	Homer speaks of crafts, games, gymnastics, exercises and tells of the rehabilitation of Hephaistos.	11

Period B. 600 B.C. to A.D. 200.

652-584 B.C.	O.T. P.R.G.	Thales 'mixed music and song' with gymnastics.	13
580-489 B.C.	P.R.G.) O.T.)	Pythagoras recommended dieting, gymnastics and music for depression.	13
c.450 B.C.	P.R.G.) O.T.)	Herodicus (or Prodicus) invented 'gymnastic medicine'.	14
460-377 B.C.	O.T.) P.R.G.)	Hippocrates prescribed all forms of active treatment and the Hippocratic writings have many references to massage, gymnastics, baths, riding and work.	14,15, 16
	P.R.G.	Plato stressed the importance of the body-soul connection. He thought exercises good for the sick but not the healthy and warned against 'practising a continual physick'.	17
310-250 B.C.	P.R.G.	Erasistratus, the distinguished Alexandrian physiologist, agreed with Plato about exercises.	17

335-280 B.C.	G.	Herophilus, the Alexandrian anatomist dissected publicly and sought causes of disease.	17
384-322 B.C.	G.	Aristotle and his work influenced history of these techniques indirectly - i.e. through his comparative anatomy, philosophy etc.	17
	P.R.G.	Eudoxus - advised exercise with gymnastics	17
		Research into acoustics and applied mechanics.	18
272-269 B.C.	Or.	Euclid wrote a treatise on the mathematics of optics.	18
287-212 B.C.	G.	Archimedes, with Euclid, propounded the principles of leverage applied to the human body.	18
c.124 B.C.	G.	Asclepiades of Bithynia, physician, used gymnastics, dietetics and psychotherapy.	18
c.100 B.C.	Or.	Hero wrote a treatise on optics.	18
47 B.C.	P.	Scribonus Largus told of the electrotherapeutic qualities of the black torpedo fish.	8
$\frac{25}{14}$)B.C. to $\frac{50}{37}$)A.D.	G.	Celsus, anatomist and physiologist, and ? physician, recommended the use of physical and psychological therapeutic techniques.	18,19, 20
c.A.D. 77	P.	Pliny described more fully the electric qualities of the 'cramp' or torpedo fish	8
? A.D. 150-200	P.	Aretaeus of Cappadocia recommended massage	20
? A.D. 46-210	S.P.	Plutarch told of Demosthenes' cure of stammering.	20
A.D. 130-200	G.	Galen advocated all therapeutic techniques in several written works and stressed the importance of body-soul connection and of volition. He gave an account of path of optic nerves: was interested in speech and the origins of the voice.	21 22
	Or.		
	S.T.		

Period C. A.D. 200-1250

325-403	P.Or.	Oribasius compiled a medical collection from works since lost. He is said to have been an authority on medical use of swimming and to have discussed strabismus.	25
c.400	P.R.G. Or.	Aurelianus prescribed all forms of active treatment including graded exercises, the use of slings, weights and pulleys, of heat, of eye and tongue exercises, as well as sensible and humane treatment for insanity.	25,27
	S.T.		27
350	S.T.	Actius of Amida was interested in 'artificial vocalisation'.	28
625-690	P.R.G. Or.	Paul of Aegineta defined gymnastic exercise, prescribed eye exercises, and recommended a mask for occlusion.	28

860-899	P.R.G.	Rhazes recommended baths and graded exercise.	25
980-1036	G.	Avicenna, philosopher - physician, again emphasised that active volition was necessary to successful exercise	29
1100	G.	The Universities in Europe were founded from this date onwards	24
1140	G.	Roger of Sicily passed decree controlling medical practice.	24
1158	G.	Bologna University was founded and public dissection again started.	25
1170	G.	The Masters of Salerno compiled anatomical texts from old MSS.	24
1214-1294	G.	Roger Bacon studied Arabian psychology: wrote on optics: suggested use of lenses for spectacles: wrote on Old Age and Youth, and stressed the value of direct experiment.	29

Period D. A.D. 1250-1700

1260-1320	G.	H. de Mondeville, an anatomist: physiologist: and surgeon: taught at Montpellier.	30
1270-1326	G.	Mondino di Luzzi of Bologna again dissected in person and wrote on anatomy.	30
1300-1368	G.	Guy de Chauliac wrote a treatise on surgery.	32
1304-1374	P.R.G.	Petrarch suggested exercise rather than other medical treatment.	34
1370-1444	P.R.G.	P. Vergerius insisted that intellectual studies must alternate with exercises.	34
1396-1429	O.T. P.R.G.	Vittorino da Feltre, physician - educationalist, stressed the value of exercises and of 'joyous occupation'.	34
1407-58	P.R.G.	Maffeus Vegius distinguished between two kinds of exercise.	34
1450	P.	M. Savonarola (Surgeon) wrote on Italian baths	33
1450-1534	P.	A. Gazius - considered exercise passive only, to be used in conjunction with massage.	34
1452-1518	G.	Leonardo da Vinci, published anatomical drawings and was interested in analysis of industrial physiology.	31,36
1470	O.T. R.G.	A. Boorde, physician, published his 'Dyetary of Health' and recommended exercises with an interest.	34
1493-1551	G.	Paracelsus stressed necessity of linking physical and spiritual well-being.	32
1514-1564	G.	Vesalius, published an anatomical treatise	30-31
1517-1590	P.R.G. O.T. Or.	A. Paré, prescribed breathing exercises and massage: carrying loads: running and riding. He recommended eye exercises and use of a mask for occlusion.	35
1529-1583	P.R.G.	L. Joubert tried to introduce exercises into medical courses so that physicians might prescribe them.	35,36

1530-1576	P.R.G. O.T. Or.	H. Mercurialis, wrote 'De Arte Gymnastica', analysed muscular action. He recommended exercises: stressed need for exact diagnosis and prescribed music and exercises for the mentally ill, and exercises for eye troubles.	35
1537-1619	G.	F. Aquapendente wrote on animal movement.	31
1540	G.	Henry VIII passed a Statute permitting 4 dissections p.a. in England.	31
1544-1600	O.T. P.R.G.	J. Duchesne prescribed all forms of exercise and occupation, emphasising the needs of old people.	36
1546	G.	J. Canappe wrote 'Movimento Musculorum'	31
1551-1615	P.R.G.	T. Bright of Cambridge, physician, taught the value of baths, massage and exercises.	36
1561-1626	G.	Sir F. Bacon discussed exercises and was interested in industrial movement, rhythm, posture etc., also in psychology.	22,36
1561-1636	G.	Sanctorius Sanctorius discovered the effects of perspiration on metabolism.	37
1564-1642	G.	Galileo discovered the law of falling bodies and devised the telescope and microscope.	32
1578-1637	G.	W. Harvey discovered the circulation of the blood.	31
1583	Or.	G. Bartisch published the first book on eye-exercises: and recommended the use of the mask.	40
1588-1679	G.	Hobbes, developed his theories of the individual in a social state.	32
1596-1650	Or.	R. Descartes defined the reflex arc and discussed 'accommodation'.	31,40
1604	Or.	J. Kepler demonstrated the inversion of the optic image on the retina.	40
1605	G.	M. Cagnatus also tried to introduce exercises into medical courses.	36
1608-1679	G.	G. Borelli wrote on mechanics of movement and respiration.	32
1612-1666	G.	A. Deusing wrote on animal movement.	31
1619	Or.	C. Scheiner published 'Oculus'.	40
1624-1689	O.T. G.	Thomas Sydenham, the founder of clinical medicine prescribed horse-riding for a variety of ills.	37
1628-1694	G.	Malphigi discovered the capillaries.	31
1632-1677	G.	Spinoza laid the foundations of a psychophysical parallelism.	32
1632-1704	G.	J. Locke - psychologist, philosopher and physician, was also interested in education and physical training.	32
1632-1723	G.	Leeuwenhoek the Dutch microscopist, discovered striped muscles.	31
1633-1714	O.T.	B. Ramazzini: Professor of Practical Medicine at Padua, discussed occupational	

	R.G. Or.	diseases and their cures through all forms of therapeutics. He mentioned eye troubles and extolled the body and soul theory.	38,39
1637-1680	G.	J. Swammerdam gave demonstrations of muscular contractions.	31
1658-1742	O.T. P.R.G. Or.S.T.	N. Andry wrote on Orthopaedics: prescribed exercises for children, eye exercises and exercises for stutterers.	41
1660-1734	G.	Stahl postulated in his theories the close links between psychology and medicine.	32
1662-1742	P.	S. Hahn used cold packs for fevers	47
1668-1738	G.	Boerhaave, the Dutch Clinician, had an influence on physical and psychological medicine.	43
1680	G.	C. Perrault published a work on animal movement.	31
1688-1756	P.	John Freke, surgeon, St. Bart's Hospital employed electricity therapeutically.	45
1697	P.	Sir John Floyer wrote on 'Right Use of Baths'.	47
c.1588	P.	Bacci published a book on the history of bathing - 'De thermis 7 libb: in quibus tractatur de universa aquarum natura; de tenestris ignis natura; de balneis totius orbio, etc.'	33
1665-1747	P.R.G.	Burette, a French surgeon, prescribed gymnastics.	49

Period E. A.D. 1700 - 1850 and Period F. 1850 - 1950

1690-1742	P.	F. Hoffman introduced 'Hydropathy' to France.	47
1696-1738	P.	S. Quelmatz wrote on medical electricity and invented a suspended rocking-horse for exercise.	45
1707-1782	G.	Sir J. Pringle wrote on 'Preserving the Health of Mariners' and on 'jayl' fever.	43
1708-1777	G.	A. von Haller was the master physiologist of the period.	43
1716	P.	Dr. Wm. Oliver of Bath wrote 'A Practical Dissertation on Bath Waters'.	47
1722-1840	G.	Jean Esquirol made a scientific study of mental illness.	44
1724-1804	G.	Kant propounded his philosophical theories.	43
1725	O.T. P.R.G.	E. Strother published his 'Essay on Sickness and Health' commending exercises, massage, baths and the introduction of 'a different habit'.	47,48
1734	O.T. R.G.	Chirac recommended exercise in a carriage over cobblestones.	48
1732-1822	O.T.	W. Tuke introduced occupations at The Retreat, York, and freed his patients from chains.	52

1737-1784	P.O.T.	J.P. David discussed the effect of movement and rest on surgical conditions.	50
1737-1798	P.	L. Galvani experimented with electrical action and muscular contraction.	45
1740	O.T. P.R.G.	F. Fuller published 'Medicina Gymnastica' in which he discusses all forms of treatment techniques of the type under discussion in this thesis.	48
1742	S.T.	Bouillard made a study of aphasia.	55
1742	G.	G. Cheyne published Essays on Health and Long Life and discussed body-mind influence.	47
1743	Or. P.R.G.	R. James published his Medicinal Dictionary, giving an account of all the different treatment techniques.	48,54
1743	Or.	G.L. Buffon wrote a paper on Strabismus.	54
1745-1826	O.T.	Pinel freed his patients from chains and gave them occupations.	52
1745-1827	P.	A. Volta - made electrical experiments in muscle contraction.	45
1748-1832	G.	J. Bentham, who was termed 'the father of English Law Reform', urged other administrative reforms as well, including the setting up of a Ministry of Health.	44
1751	P.	Another Dr. Wm. Oliver wrote on warm bathing in gouty cases.	47
1752	Or.	J. Daniel developed a new treatment for cataract.	54
1753	P.R.G.	J. Lind wrote 'A Treatise of the Scurvy' and recommended ingenious exercises for seamen.	43
1759	Or.	J. Taylor wrote on 243 diseases of the eye.	54
1759	O.T.	V. Chiarugi freed his patients from chains and gave them occupations and attempted to clarify the psychoses.	53
1760	P.	J. Wesley mentions treatment by electricity in the preface to his 'Primitive Physick'.	45
1761	Or.	Another J. Taylor, who claimed to be 'Ophthalmiator Pontifical Imperial' etc. describes his travels	54
1764	G.	Donald Monro published his 'Diseases of the Army'.	43
1767	P.	The Middlesex Hospital, London, installed an 'electric machine'.	46
1768	G.	Pott wrote on Fractures and Dislocations.	43
1772	O.T.	William Cullen also recommended occupations for the mentally ill.	52
1773-1829	Or.	T. Young studied the mechanism of vision. He was called 'the father of physiological optics'.	54
1773-1836	G.	James Mill extended Hartley's theory of association.	44
1774	G.	J. Armstrong published his poem 'The Art of Preserving Health'.	49

1774	P.O.T.	Dr. Buchan published his 'Domestic Medicine' recommending baths and interesting occupations.	52
1774-1842	Or.	C. Bell, in 1823, wrote 'on Motions of the Eye and Nerves of the Orbit'.	54
1776-1839	P.R.G.	P.H. Ling, in 1813, founded the Central Institute of Gymnastics, Stockholm.	50,81
1777	P.	St. Bartholomew's Hospital, London, installed an 'electric machine'.	46
1777-1832	P.R.G.	J. Delpech, a medical contemporary of Ling, who was interested in application of gymnastics to deformities, founded an orthopaedic institution.	50
1780	P.O.T.	C.J. Tissot classified occupational exercises and recommended massage.	49
1778-1853	P.R.G.	F. Hahn invented his "Türnen" - (exercises).	81
1780-1845	G.	Elizabeth Fry concentrated on prison reform.	44
1782-1784	P.Or.	J.P. Marat published works on medical electricity and optics.	45
1783	G.	A. Monro wrote on the structure and function of the nervous system.	43
1784	P.	Caldani experimented with electrical stimulation of the cortex.	45
1784-1834	P.	L. Nobili discovered electro-magnetic induction.	45
1788-1861		Dr. Southwood Smith propounded his health rules	44
1792-1827	P.	J. Shaw recommended massage and graded exercises.	51
1792-1827	P.	J. Heine used electricity therapeutically.	45
1793	P.R.G. O.T.	Guts Müths analysed the value of gymnastics, play and games.	50
1795-1861	G.	J. Braid discusses 'the new imponderable - the power of mind over body' (hypnotism).	44
1795-1879	G.	The Weber brothers' contribution to psychological and medical sciences. E.H. Weber wrote 'Concerning Touch' (1834).	43
1797	P.	J. Currie wrote on water treatment and for typhoid.	50
1799-1851	P.	V. Priessnitz commended exercises and 'the cold water cure'.	50
1800	G.	E. Chadwick, reformer, poor law commissioner, sought 'to promote the greatest happiness of the greatest number'.	44
1801	Or.G.	Erasmus Darwin recommended occlusion: he studied psychology.	54
1801-1858	G.Or. S.T.	J. Muller - physiologist of renown, experimented with sight and with the vocal chords.	43,55, 57
1851-1885	G.	Lord Shaftesbury, reformer who in 1842 became President of the Society for Improving the Condition of the Insane	44

1802	P.	J. Birch (St. Thomas') published and wrote on the medical use of electricity.	46
1803-1873	G.	J. von Liebig introduced laboratory teaching of chemistry and physiology.	43
1806	G.	Sir J. Sinclair published papers on exercises and health.	51
1806-1873	P.	G. Duchenne founded modern electro-therapy.	46
1808	P.R.G.	J. Barclay commended gymastics and wrote on 'Muscular Motions'.	50
1810	O.T.	W.S. Hallaran stressed the psychological and economic value of occupations.	53
1818-1889	Or.	Donders, Dutch anatomist, physiologist and ophthalmologist founded an association for the advancement of medicine.	70
1818-1896	P.	E. du Bois Reymond introduced faradic stimulations and wrote on electricity and galvanism.	46,74
1820	P.	Londe published 'Gymnastique Medicale', but disapproved of massage.	51
1820-1884	P.R.G.	A. Maclaren wished to make gymnastics into a science. He opened a fencing school and gymnasium. In 1860 he developed physical education for the army and in 1867 published tables of exercises.	81
1820-1886	P.R.G.	H.F. Ling, (son of R.H.L.) wrote a book on Kinesiology.	81
1820-1910	P.	E. Henoch discussed electricity as treatment.	45
1820-1910	O.T. G.	F. Nightingale, who insisted on recreations for convalescents, set up a school of nursing - one of the first examples of organised training for women.	60,59
1822-1884	G.	Mendel postulated his theories of heredity.	43
1825-1893	G.S.T.	Charcot experimented with hypnotism and discussed aphasia.	44,45
1827-1899	P.	E. Brand studied hydrotherapy	50
1828-1870		A. von Graefe earned fame in plastic and orthopaedic surgery.	
1830-1914		Weir Mitchell encouraged the use of physiotherapeutic methods.	
1832-1920	G.	Wundt established an Institute of Experimental Psychology in Leipzig in 1878. He published 'Principles of Physiological Psychology'.	43,57
1835	G.P.	G.T. Fechner wrote on electricity and physiology.	43
1836	P.	Dr. Golding Bird founded an electro-therapy dept. at Guy's Hospital and in 1849 lectured to the Royal College of Physicians on the subject.	46
1836	S.T.	Dax showed interest in aphasia.	55
1836	G.	R. Owen wrote on social conditions.	44

1838	Or.	Wheatstone invented the stereoscope and wrote on the physiology of vision.	54,70
1839-1900		Mezger.	
1840	Or.	Duffin wrote on strabismus.	55
1840	O.T.	Lauret called treatment by occupations 'moral treatment'.	65
1842	O.T.	Dr. T. Kirkbride, a keen protagonist of O.T., published a report on it.	62
1842-1910	G.	W. James was a pioneer in the field of psychology.	57
1843-1913	P.	Champonnière tried to popularise massage.	74
1845	P.R.G.	Ehrenhoff published a work on gymnastics and manipulation.	82
1846	G.	J. Esdaile wrote on the application of mesmerism in surgery and medicine.	44
1849-1936	G.	Pavlov experimented with conditioned reflexes.	58
1850	Or. S.T.	Helmholtz invented the ophthalmoscope and thermometer and wrote on this and on optics; also on sensations of tone.	55
1850	P.	Zander developed machines to exercise muscle-groups.	74
1850-1900	S.T.	Wernicke: wrote on aphasia.	85
1850	P.	Georgii (of Sweden) opened an Institute of Gymnastics in London. He wrote 'Kinetic Jottings'.	82
1852	G.	Lotze published 'Medicinische Psychologie' dealing with effect of physical upon psychological.	43
1852	G.	Cell division was discovered	57
1855	S.T.	M. Garcia invented the laryngoscope.	57
1856-1939		S. Freud: developed theories of the unconscious.	57
1857-1911	G.	Binet: with T.Simon developed intelligence tests.	58
1858	G.	H. Gray first published his book on anatomy.	57
1858	G.	The Medical Act, requiring a medical register to be kept.	59
1858	G.	R. Virchow emphasised the importance of the isolation of the individual cell in pathology.	57
1858	O.T.	Education introduced as a form of O.T. in a Dublin hospital.	61
1860-1944	G.	Cattell - made a particular study of perception.	58
1861	S.T.	Broca studied the motor power of speech: aphasia, aphoria.	85
1862	S.T.	Klencke wrote on stammering and its psychological import.	86
1862	S.T.	Denhardt - ditto.	86

1863	Or.	Javal: adapted Wheatstone's stereoscope and in 1896 published a work on strabismus.	70
1864	P.R.G.	Blundell was a protagonist for Swedish exercise methods.	82
1864	Or.	Donders' work on accommodation of the eye published in London.	70
1865	S.T.	Dr. M. Mackenzie discussed the use of the laryngoscope.	85
1865	G.	Bernard, professor of medicine and physiology stressed the need to combine physiology with pathology and therapeutics, i.e. to consider the normal as well as the abnormal.	57
1868	Or.	Hering wrote on binocular vision.	71
1868	P.	T. Brand tried to introduce massage into gynaecology.	74
1869	G.	Woodworth wrote a number of books on psychology.	58
1870	O.T. R.G.	R. Chassaigne made a study of the physiology and the therapeutic value of riding.	65
1870	P.R.G.	Tissot wrote on medical gymnastics and analysed massage.	74
1870	Or.	R. Liebrich published an 'Atlas d'ophthalmoscope'.	71
1873	G.	T. Simon - with Binet - developed intelligence tests.	58
1874	G.	E.L. Thorndike made a study of learning and animal intelligence.	58
1875	G.	C. Jung developed his psychological theories.	57
1881	P.R.G.	Madame Osterberg came from Sweden to teach gymnastics.	82
1884	Or.	Priestley Smith devised fusion tubes and the heteroscope.	71
1885	P.R.G.	Madame Osterberg opened the first women's college for remedial gymnastics (London).	82
1886	P.	Publication of Winternitz's theories on hydrotherapy for fevers.	50
1886	Or.	Landolt invented vision charts.	71
1887	Or.	C. Schweigger published work on the Clinical Investigation of the squint.	71
1887	G.	Ludwig wrote on physiological themes.	57
1889	Or.	Maddox (E.E.) and his daughter (M.C.) wrote on tests and studies of the ocular muscles, on prisms and lenses.	72
1889	Or.	Parimand used the stereoscope to exercise binocular vision.	71
1890	P.	D'Arsonval developed the use of high frequency currents.	75
1890	P.	Baruch called for training in hydrotherapy.	75
1892	S.T.	Brown and Behnke developed theories and wrote on stuttering.	86

1897	S.T.	T. Arnold published a number of pamphlets on speech.	85
1894	S.T.	Wyllie deals with speech defects as a subject in itself, not as a symptom of another disorder.	85
1894-1899	O.T.	Monnier surveyed Dr. Grohmann's 'Beschaeftigungs Anstalt' at Zurich, Switzerland.	63
1894	O.T.	An O.T. project started by Grohmann at Zurich.	63
1895	P.	The 'Society of Trained Masseurs' started.	76
1898	P.O.T. R.G.	A spate of French theses relating to physical treatment of all kinds.	74
1898	S.T.	Liebmann wrote a treatise on Speech Therapy.	86
1899	O.T.	An O.T. project started at Haus Schönow, Germany.	63
1900	P.	Weir Mitchell wrote on the treatment of neurasthenia and hysteria by massage, etc.	76
1901	Or.	Remy developed the diploscope.	71
1903	Or.	Worth wrote on 'Squint: its Pathology'. He also developed the fusion theory further and invented the amblyoscope.	71
1905	P.	Masseurs admitted to examination.	77
1906	S.T.	A Lancashire Education Authority started classes for stammerers.	87
1906	P.	Nagelschmidt made further experiments with diathermy.	75
1906	O.T.	Harvard University allocated $1,000 for the study of treatment of neurasthenia by occupation.	63
1906	O.T.	S. Tracy started a course in 'Invalid Occupations' for nurses.	63
1908	G.	Government grants were given for technical training.	59
1908-10	S.T.	Translation of a number of works on aphasia, etc. by Broca, Wernicke and Cohen.	85
1910	O.T.	Drs. Neff and Meyer stressed the importance of prescription in O.T.	65
1910	S.T.	Brissot wrote on Aphasia.	85
1911	O.T.	Courses started in O.T. in American hospitals and universities.	63
1911	S.T.	A Speech Clinic opened at St. Bart's Hospital, London.	86
1911	R.G.	A Prussian school of gymnastics opened at Spandau.	82
1911-1933	P.	Teachers' courses in physiotherapy instituted.	77
1913	S.T.	A Speech clinic opened at St. Thomas' Hospital, London.	86
1914	O.T.	Dr. C. Reid (America) talked of 'Ergo-Therapy'.	64

1914	Or.	Ettles invented the synopotophore.	71,72
1915	O.T.	A. Vigni published a work on the value of systematic work in the treatment of tuberculosis.	65
1915	P.	First (physiotherapy) examination in medical electricity.	78
1915	P.	The first copy of the Journal of the In corporated Society of Trained Masseurs was published.	78
1916	O.T.	Sir R. Jones made a 'first experiment' in O.T. at the Military Hospital, Shepherds Bush.	66
1917	O.T.	George Barton (American) originates the term 'Occupational Therapy'.	65
1917	S.T.	First meeting of 'Society for Promotion of Occupational Therapy' held at Clifton Springs, N.York. (In 1921 this became the American O.T. Association).	65
1918		Dobbie's translation of Kleen's book on Massage and Mental Gymnastics was published.	74
1918	O.T.	At close of the First World War American and Canadian O.T. went forward. British O.T. closed down.	66
1920	P.	The Chartered Society of Massage and Medical Gymnastics came into being.	78
1923	S.T.	A centre for correction of speech defects was started at the University College Hospital, London.	87
1923	S.T.	The Phonetics department of University College, London sponsored a research project on speech therapy.	87
1928	S.T.	J.M. Fletcher wrote on the psychological import of stuttering.	86
1930	O.T.	Dr. E. Casson started first O.T. school in England at Bristol.	67
1932	O.T.	The Scottish Association of Occ. Therapists was formed - later reformed - in 1946.	68
1932	Or.	Cantonnet et Fillozet stressed the importance of psychology in orthoptic treatment.	72
1933	P.R.G. O.T.	The Central Council for Recreative Physical Training was formed.	83
1933	Or.	M. Pugh devised the orthoptoscope.	72
1934	S.T.	A Remedial section of the Association of Teachers of Speech was formed. (This later became the Association of Speech Therapists)	87
1934	O.T.	First conference on O.T. held in London.	67
1936	O.T.	Association of Occupational Therapists (England) formed.	68
1938	O.T.	First book on O.T. (in mental cases) published in England.	66
1938	O.T. P.	Dr. Howitt discussed possible co-operation in training between Occupational Therapy and Physiotherapists. An experiment started - in some subjects only - at Bristol.	68

1938	Or.	The first meeting of British Orthoptic Society.	73
1939	Or.	The first copy of the British Orthoptic Journal published.	73
1939		Second World War.	
1940-44		M. of H. subsidised short courses in O.T. for the Emergency Medical Service.	
1942-3		The Army did the same for its own service.	
1942	P.	First draft of Physiotherapists (Massage Corps) went abroad.	79
1943		The Association of O.Ts. was incorporated.	
1943	P.	The Chartered Society of Massage and Medical Gymnastics became Chartered Society of Physiotherapy.	78
1944	S.T.	The College of Speech Therapists was formed.	87
1945	S.T.	First Conference of Speech Therapy.	89
1946	R.G.	Remedial Gymnasts Association formed.	84
1948	G.	The Health Act implemented.	62
1948	S.T.	Second Conference of Speech Therapy.	
1949	G.	'Cope Committees', i.e. committees on medical auxiliaries, set up.	90
1951	G.	Cope Committees reported.	90
1951	O.T.	The World Federation of Occ. Therapists was formed.	70
1952	R.G.	Women were accepted for courses of Rem.Gym. Assn.	85
1953	O.T. Or.	A Pilot scheme was started for Occupational Therapists or Orthoptists to have combined lectures.	80
1953	P.	World Congress of Physiotherapy - London.	80
1954	G.	The National Health Service (Medical Auxiliaries) Regulations 1954.S.I. 1954 No.55.	93
1954	O.T.	World Federation of Occupational Therapists. Congress - Edinburgh.	70

Appendix 2.

A Glossary of technical words as used and/or interpreted in this thesis

O.T. = Occupational Therapy

Or. = Orthoptics

P. = Physiotherapy

R.G. = Remedial Gymnastics

S.P. = Speech Therapy

G. = of General interest - influencing the development of some or all services.

Actine Therapy	P.	Treatment by heat.
Active Movement	O.T.	Notes on the Syllabus of Training in Exercises in the examination of the Chartered Society of Physiotherapy.
	P.	A movement produced by the patient by voluntary muscle activity.
	R.G.	Ditto.
Amblyopia	Or.	(Greek - amblus: blunt. Ops: vision). A term usually used to describe a condition of diminished visual acuity without any demonstrable pathological cause. (Lyle and Jackson).
Angle of Squint	Or.	The measurement of the displacement of the visual axis of one eye from the normal position.
Aphasia	S.T.	Loss of speech as result of cerebral affection. (Greek: aphalos (?): speechless) (Concise Oxford Dictionary).
Bar Reading	Or.	An exercise to teach patients to maintain binocular single vision while reading.
Binocular Vision	Or.	The co-ordinated use of two separate eyes in order to produce a single mental impression.
Convergence	Or.	Latin - Cum (with) -Vergere (to incline) rotation of both eyes towards the midline as normally occurs when looking at a near object.
Convergence insufficiency	Or.	The inability to obtain and/or maintain adequate convergence without undue effort.
Diathermy	P.	Transmission of radiant heat.
Diplopia	Or.	Greek - Diplos (double) Ops (vision) - Double vision a condition in which the individual sees two images of one object.
Diploscope	Or.	An instrument for exercising accommodation and convergence in varying relationships.
Ergo-therapy	O.T.	Work therapy. (Greek - ergo - work).
Fusion theory	Or.	Fusion - the mental ability to blend two images, (one on each retina), and see them as one. (Lyle and Jackson). Fusion angle - the angle at which a patient can join two fusion pictures on the synoptophore without mental effort. (Lyle and Jackson).

Heterophoris	Or.	(Greek - heteros; other: pherein: to bear). A latent strabismus, i.e. a tendency for the visual axes to deviate from their normal direction of parallelism. (Lyle and Jackson).
Laryngoscope	S.T.	Mirror apparatus for examining larynx.
Natural Therapy	G.	This appears, in this context, to mean 'by natural agencies', i.e. massage, exercises, manipulation etc.
Nystagmus	Or.	(Greek - mustadzein - to nod). Short oscillatory movements of the eyes. Such may occur constantly or only when the gaze is in a certain direction. It may be horizontal, vertical or rotatory in type.
Ophthalmoscope	Or.	An instrument for examining the media and fundus of the eye to detect any pathological defect.
Passive Movement	P. O.T.	A movement produced in a patient's joint(s) by an operator or other external force.
Psychomatic Medicine	G.	Involving physical & psychological factors.
Stereoscope	Or.	An instrument designed on the principle of dissociating the two visual fields while using pairs of test objects which are designed to encourage binocular vision.
Strabismus	Or.	Squint. (Greek. strabos: crooked) The condition in which the visual axes of the two eyes are not both directed towards the same fixation point. (Lyle and Jackson).
Suppression	Or.	A condition in which the image of an object formed upon the retina is not perceived, but is mentally ignored and neglected, either partially or completely. It is one of the means whereby double vision is overcome. (Lyle and Jackson)
Synoptophore	Or.	(Greek. sun: together, ops-vision, pher)
Therapy	G.	Therapeutic - curative; of the art of healing. (Greek - therapeutikos - therapenō, wait on, cure) (The Concise Oxford Dictionary).
Vision Charts	Or.	Charts for determining acuteness of vision for near or distance.

LIST OF SCHOOLS IN THE VARIOUS PROFESSIONS

* Training for men students.
Ø In a N.H.S. Hospital - or linked with it ∴ subsidised by the Min: of Health.

PLACE	OCCUPATIONAL THERAPY	ORTHOPTICS	PHYSIOTHERAPY	SPEECH THERAPY	REMEDIAL GYMNASTICS
Bath			* The Manor House, Coombe Park.		
Belfast			* Royal Victoria Hosp:Belfast.		
Birmingham		Ø Birmingham & Midland Eye Hospital, Church Street.	Ø The Queen Elizabeth Hospital. The Royal Orthopaedic Hosp: 80 Broad Street.		
Bradford			* Ø Bradford Hospitals School of Physiotherapy, The Royal Infirmary, Bradford.		
Bristol			Ø Royal Hospital.(Infirmary Brh)		
Cardiff			Ø Royal Infirmary.		
Cheltenham		Ø Cheltenham & General Children's Eye Hospital. Sandford Rd.			
Chertsey	Botleys Park,Chertsey,Surrey.				
Chester		Ø Chester Royal Infirmary.			
Coventry		Ø Coventry & Warwickshire Hosp:			
Derby	* Ø Derby School of Occ.Therapy, 29 Hartington St., Derby.				
Dublin			Dublin School of Physiotherapy, 12 Hume Street.		
Edinburgh	Ø The Astley Ainslie Hospital, Grange Loan.		Ø Royal Infirmary.	139 George St. Edinburgh 2.	
Exeter	=* St. Loyes School of O.T., Millbrook Lane,Topsham Road.				
Glasgow		Ø Glasgow Eye Infirmary, Berkeley Street.	Ø(Royal Infirmary. *(Western Infirmary.	The Glasgow School of Speech Therapy.	
Leeds		Ø General Infirmary, Leeds.	* Ø United Leeds Hospitals - The General Infirmary at Leeds.	The Leeds School of Speech Therapy.	
Liverpool	Liverpool School of Occ.Therapy, Victoria Rd. Huyton.		Ø The United Liverpool Hosps: School of Physiotherapy, - Royal Southern Hospital.		

Cont:

LIST OF SCHOOLS IN THE VARIOUS PROFESSIONS

* Training for men students.
Ø In a N.H.S. Hospital or linked with it
∴ subsidised by the Min. of Health.

PLACE	OCCUPATIONAL THERAPY	ORTHOPTICS	PHYSIOTHERAPY	SPEECH THERAPY	REMEDIAL GYMNASTICS
London	* London School of Occ.Therapy, 12 Merton Rise, Hampstead, NW.3	Ø Moorfields Branch, Moorfields. Westminster & Central Eye Hosp: City Road, London E.C.1. Ø Westminster Branch, Moorfields. Westminster & Central Eye Hosp: High Holborn, London W.C.1.	* Misses Field & Morris 3 Albany Terrace, N.W.1. Ø Guy's Hospital, S.E.1. Ø King's College Hospital, Denmark Hill, S.E.5. E.1. Ø London Hospital, Whitechapel, Ø Middlesex Hospital, W.1. Ø St. Mary's Hospital School of Physiotherapy, Swedish Inst:, 108 Cromwell Road, S.W.7. Ø St. Thomas' Hospital, S.E.1. * West London School of Physio: 50 Chepstow Villas, W.11.	Speech Therapy Dept., Central School of Speech Training & Dramatic Art. The Kingdom Ward School of Speech Therapy. The Oldney & Fleming School of Speech Therapy. The School of Speech Therapy, The West End Hospital for Nervous Diseases.	
Manchester		Ø Manchester Royal Eye Hospital, Oxford Road, Manchester.	Ø Ancoats Hospital. Ø Buxton & Withington Hospitals School of Physio:, Withington Hospital, West Didsbury, Manchester 20. Ø Royal Infirmary.		
Newcastle-on-Tyne			Ø Royal Victoria Infirmary.		
Northampton	* St. Andrew's Private Hospital, Billing Road, Northampton.				
Oswestry			* Ø Robert Jones & Agnes Hunt Orthopaedic Hospital.		
Oxford	Dorset House School of Occ.Ther: The Churchill Hosp:, Oxford.	Ø The Oxford Eye Hospital, Walton Street, Oxford.			
Reading		Ø Royal Berkshire Hospital.			
Salford			* Ø Salford Royal Hospital.		
Sheffield		Ø Royal Infirmary, Sheffield 6.	* Ø United Sheffield Hospitals, Westbourne House, Whitham Rd. Sheffield 10.		
Wakefield					* Ø Pinderfields General Hosp: Aberford Rd. Wakefield.
Wolverhampton		* Ø Wolverhampton & Midland Counties Eye Infirmary, Compton Road, Wolverhampton.	* Ø The Royal Hospital.		

Appendix 3b.

THE COLLEGE OF SPEECH THERAPISTS

REGULATIONS AND SYLLABUS

FOR THE

DIPLOMA OF LICENTIATESHIP

EXAMINATIONS BOARD

Chairman:
Mrs. Murdo Mackenzie, M.A., F.C.S.T.(Hon.)

Professor G. H. Bell, M.D., F.R.F.P.S.G., F.R.S.Ed.

Miss E. Butfield, F.C.S.T. (Representative of the Council)

Miss L. M. Dickson, M.B., Ch.B.

J. B. Gaylor, Esq., M.A., B.Sc., M.B., Ch.B., F.R.F.P.S.G.

A. C. Gimson, Esq., B.A.

E. Gwynne-Evans, Esq., M.B., B.S.

Mrs. B. M. Hammond, F.C.S.T.

Miss K. Henshaw

Professor T. Pomfret Kilner, C.B.E., F.R.C.S., F.C.S.T.(Hon.)

Miss E. C. MacLeod, F.C.S.T.

Dr. Anne H. McAllister, O.B.E., M.A., Ed.B., D.Sc., F.C.S.T., F.E.I.S.

Miss E. E. Mills, L.C.S.T.

Miss A. Swallow, F.C.S.T.

Miss J. M. Farnall Thurstan, L.C.S.T. (Hon. Treasurer)

Miss J. H. van Thal, M.B.E., F.C.S.T. (Chairman of the Council)

Miss J. L. Wilkins, F.C.S.T.

Addendum to Paragraph 1

Students must have attained the age of eighteen years by the time they begin their studies. At the discretion of the head of a training school a student may be accepted whose eighteenth birthday falls after the opening date of the academic year but not later than 31st October.

THE COLLEGE OF SPEECH THERAPISTS

REGULATIONS

Applicants for admission as Licentiates of the College of Speech Therapists are required to have passed the qualifying examination of which particulars are set out below.

1. Before entering upon their course of training students must hold a General Certificate of Education* showing passes in five subjects (one of which must be English Language) at ordinary level. It is desirable that one of these subjects should have been passed at advanced level.

2. The course of study must extend over a period of three consecutive years.

3. Application for registration as a student of Speech Therapy must be made, through the appropriate authority of the training school, to the College of Speech Therapists before 31st January of the first academic year and must be accompanied by a registration fee of half a guinea (10/6).

4. The examinations will be held once a year during the months of June and July in London, and at the discretion of the examination authorities at one centre in Scotland. The College of Speech Therapists may, if circumstances permit and render it desirable, arrange for the conduct of additional examinations at another date.

5. Each candidate for examination will be required to send, together with the form of entry, a certificate as to character, diligence and attendance at the course of study, signed by the authority of the training school.

6. The College of Speech Therapists will conduct an examination (Part I) at the end of the second year of training, in the following subjects :—

   NORMAL VOICE AND SPEECH
   one written paper and an oral examination

   PHONETICS
   one written paper, dictation and an oral examination

   ANATOMY AND PHYSIOLOGY
   two written papers

   SPEECH PATHOLOGY AND THERAPEUTICS
   one written paper.

---

* Applications will be considered from candidates who have the Scottish Leaving Certificate with two Higher Passes, one of which must be English, the other preferably Science or a modern language, and three other subjects on the Lower standard.

7. Candidates who pass in two or three of the four necessary subjects may be permitted to re-enter at the next examination for the subject (or subjects) in which they have failed. Candidates who have satisfied the examiners in either the written paper or the oral in Normal Voice and Speech will not be required to take that section of the subject again.

8. Candidates who fail in more than two subjects must on re-entry take all four subjects. At the discretion of the Examinations Board a candidate who has a high standard of attainment in one subject may be exempted from taking that subject again on re-entering.

9. The Examinations Board may make special arrangements for re-examination in Part I during the third year of training. Candidates entering for such re-examination must complete a term's further study in the subject (or subjects) to be taken.

10. The College of Speech Therapists will conduct an examination (Part II) for candidates who have completed the third year of training, in the following subjects :—

    PSYCHOLOGY
    two written papers

    NEUROLOGY
    one written paper

    SPEECH PATHOLOGY AND THERAPEUTICS
    two written papers, a practical and an oral examination.

11. Candidates must have satisfied the examiners in Part I of the examinations before sitting Part II.

12. Candidates must have completed a **minimum** of 120 out of a possible 150–200 clinical attendances before sitting Part II. Evidence of such attendance will be required.

13. Candidates for Part II are required to furnish particulars of attendance at short courses of instruction and/or demonstrations in subsidiary subjects of study, namely :—

    Physics of Sound
    Social Services
    Diseases of Children
    Diseases of the Ear, Nose and Throat
    Orthodontics and Prosthetics
    Plastic Surgery (in relation to Speech Therapy).

14. Candidates who fail to satisfy the examiners in any subject (or subjects) in Part II will be required to take the subject (or subjects) again. Candidates who have satisfied the examiners in either the written papers or in the practical and oral examinations in Speech Pathology and Therapeutics will not be required to re-take that section of the subject in which they have passed. Candidates who have passed in one of the two papers in Psychology will not be required to re-take that paper.

Before re-entering for the practical and oral sections of Speech Pathology and Therapeutics candidates must have completed a further **twenty** clinical attendances. Evidence of such attendance will be required.

15. The Examinations Board may make special arrangements for re-examination in Part II after an interval of not less than three months after the results of the summer examinations have been made known. Candidates entering for such re-examination must complete a term's further study in the subject (or subjects) to be taken.

16. (a) Every candidate will be required to pay a fee of ten guineas (£10 10s.) on entry both for Part I and for Part II of the examination.

(b) Every candidate on entry for re-examination will be required to pay the following fees :—

PART I.	
The whole examination	10 guineas
Anatomy and Physiology, Papers I and II ...	4 „
Phonetics, written and oral	4 „
Normal Voice and Speech, written and oral ...	4 „
do. written only	3 „
do. oral only	3 „
Speech Pathology and Therapeutics	3 „
PART II.	
The whole examination	10 guineas
Neurology	3 „
Psychology, Papers I and II	4 „
do. Paper I only	3 „
do. Paper II only	3 „
Speech Pathology and Therapeutics	
written, practical and oral	6 „
written only	4 „
practical and oral only	4 „

(c) Candidates sitting in Scotland may be required to pay an additional local fee.

17. If a candidate withdraws before the last day of entry the fee will be returned subject to a deduction of one guinea. If a candidate withdraws after the last day of entry but before the first day of the examination one half of the fee will be returned. In the event of later withdrawal, absence from, or failure to pass the examination no part of the fee will be returned.

18. (a) Every candidate entering for the examinations must apply to the College of Speech Therapists **not earlier than 2nd April** for a form of entry. (Alternatively the authority of the training school may apply for forms in bulk.) The form of entry must be returned duly completed, together with the certificate of character, diligence and attendance at the course of study, and other particulars required (Vide Regulations 12 and 13) **not later than 7th May.**

    (b) When additional examinations are arranged the authorities of the training schools will be notified, forms of entry will be sent to them and notice of the closing date for the return of forms will be given.

    (c) All cheques to be made payable to the College of Speech Therapists.

19. Candidates and the authorities of the training schools will be duly notified of the results of the examinations.

20. Failure to carry out any of the conditions of the examinations may lead to disqualification.

21. Application for admission as a Licentiate of the College of Speech Therapists shall be made immediately after passing Part II. (Forms for this purpose will be supplied to successful candidates.)

    It is only upon becoming a Licentiate of the College of Speech Therapists that the candidate qualifies for Registration as a Medical Auxiliary and for practice as a Speech Therapist.

SYLLABUS

NORMAL VOICE AND SPEECH

Physiological, physical and aesthetic aspects of speech.

The speech apparatus : its form and function :

Structure and functions of chest, larynx and upper respiratory tract.

Respiration : breath for vital and vocal purposes.

Phonation. Resonance. Articulation.

The voice in speech and song : pitch, inflection, pace, rhythm.

Voice change during adolescence.

Correction and avoidance of common faults.

The proper use of the voice ; avoidance of strain ; fatigue.

Psychological factors in voice and speech.

No *specific* questions will be asked on the physics of sound, but candidates will be required to show some understanding of the following in relation to speech :

Sound waves ; propagation of a musical note ; excitor, vibrator, resonator ; amplitude, frequency, quality.

At the oral examination candidates will be required to read aloud a short passage selected by the examiners, and to engage in general conversation with the examiners.

Candidates will be assessed on audibility ; vocal flexibility ; balance of tone ; intelligibility ; habits of natural everyday speech ; ease and lucidity of verbal expression ; poise.

PHONETICS

The Phonetic Alphabet of the International Phonetic Association to be used.

Introduction. Subject matter, definition and scope of Phonetics. Rôle of Phonetics in Speech Therapy. Written and spoken language. Analysis of speech utterance. Classification of speech sounds. Standards of English pronunication.

English sounds in detail. Description of Received English consonant and vowel sounds with main dialect variants ; phonetic comparison of the Received sounds with the more common articulatory defects and substitutions.

Sound attributes. Prominence, stress, length, pitch, sonority, rhythm.

Sounds in context. Assimilation, elision.

Intonation. The main tune patterns of the English language, unemphatic and emphatic.

Practical Work.

Ear training ; dictation of connected English.

Articulation practice in English and non-English sounds.

Analysis of the student's own speech sounds.

Transcription of colloquial English.

The examination will consist of :

(a) A written paper on Phonetic Theory and a transcription of colloquial English.

(b) Dictation of connected English and of nonsense words.

(c) An oral examination which shall include a test of the candidate's ability to describe and reproduce given sounds and intonation patterns.

ANATOMY AND PHYSIOLOGY

Candidates will be expected to show a detailed knowledge of Anatomy and Physiology relevant to speech and language, together with some knowledge of basic anatomical and physiological principles.

The Cell : structure and functions. Properties of living organisms. Unicellular and multicellular organisms.

The Tissues : structure and properties of epithelia, connective tissues, muscle and nerve.

Skeleton : structure of bones in general. Vertebral column as a whole. Chief parts of vertebrae, ribs and sternum. Skull ; general features ; recognition of bones in articulated skull ; chief features of maxilla and mandible. Limb bones ; names and position (excluding individual carpal and tarsal bones).

Joints : general structure of fibrous, cartilaginous and synovial joints. Factors determining movement. Main features of all thoracic joints. Temporomandibular joint.

Muscles : structure, modes of attachment and functions of skeletal muscle in general. Changes in contracting muscle (chemical details will not be required). Muscle tone. Nerve supply : efferent and afferent. Group activity of muscles.

Of individual muscles or muscle groups the following must be known : Diaphragm, intercostal muscles, muscles of the abdominal wall. Extraordinary muscles of respiration (general principles of action only). Muscles of the larynx. Constrictors of the pharynx

(main attachments). Muscles of the tongue and the soft palate. General arrangement (not names or exact attachments) of muscles of expression and mastication.

Respiratory system : the upper and lower respiratory tracts. Form, position and structure of trachea, bronchi and lungs and of pleural sacs. Mechanism of respiration. Regulation of respiration: nervous and chemical factors. Modification of respiration for speech. Respiratory function of the blood.

Cardiovascular system : form, position and structure (not in detail) of the heart. Structure and general plan of arrangement of blood and lymph vessels. The following vessels should be known by name : aorta, pulmonary artery, carotid, vertebral and principal cerebral arteries, superior and inferior venae cavae, pulmonary and portal veins, thoracic duct.
The circulation of the blood in outline. Blood and lymph : composition and functions in outline.

Digestive and urinary systems, ductless glands and the skin : The names and positions of salivary glands and chief functions of saliva. Names and general position of the organs of digestion and excretion. Digestion and uses of the main forms of food (in very general terms, no knowledge of specific enzymes or intermediate products required). Excretion in outline. Functions of the skin. Position and chief functions of the thyroid, pituitary and adrenal glands.
Genital system : names and position of chief parts.
Outline of the process of reproduction. Germ cells and the mechanism of heredity in outline.

Nervous system : the neurone ; general plan of arrangement of neurones in the nervous system. Grey and white matter. The synapse. The nerve impulse. Effects of nerve action ; regeneration in outline.

Spinal cord : anterior and posterior nerve roots ; grey and white matter of the cord. The reflex arc. Reflex activity. Reciprocal innervation. **Brain stem :** chief features of component parts ; rôle of the brain stem in respiration and Speech. **Cerebellum:** function of cortex and peduncles in general. **Cerebrum:** lobes of cerebral hemispheres, central, lateral and calcarine sulci. The cortex: localisation of function (main motor and sensory areas only). Basal nuclei and thalamus : main functions. White matter : general arrangement of commissural, association and projection fibres ; internal capsule.

Cranial nerves. Superficial origin and functions.

Spinal and autonomic nerves : function in brief.

Membranes and blood supply of brain and spinal cord in outline. Functions, and main features of circulation of **cerebrospinal fluid.**

Nervous pathways : Motor (pyramidal) : upper motor neurone ; lower motor neurone. Extra pyramidal : meaning of term and function. Main pathways subserving pain, touch, proprioception, vision and hearing (names of tracts not required).

The eye : structure in outline. Function of parts. Mechanism of accommodation and convergence. **The ear :** structure in outline. Function of the vestibular apparatus. Mechanism of hearing. Transmission of sound across middle ear. Function of Organ of Corti.

> The following parts must be studied in greater detail. In each case form, position, structure, and function should be known, and other details where stated. Structure must include mucous membrane and innervation, as well as muscles, bones, cartilages and joints where relevant.

The oesophagus. Mechanism of deglutition.

The larynx. Age and sex differences. Mechanism.

The pharynx. Divisions. Nasopharyngeal and palatine tonsils.

The soft palate. Mechanism of closure of nasopharyngeal isthmus. Deglutition.

Oral cavity. Walls, including lips, and floor. **The tongue. The hard palate.** Deglutition.

Nasal cavities and accessory sinuses.

Outline of development and growth of lips, jaws and palate.

SPEECH PATHOLOGY AND THERAPEUTICS

As a basis to their study in Speech Pathology and Therapeutics, students will be expected to have an understanding of :

Speech as a function of the human being.

Speech and Language. Definition ; evolution ; social significance.

For Part I of the Written Examination candidates will be required to show knowledge of the following :

Normal development of speech and language.

Definition, scope and objectives of speech therapy.

Personal attributes of the speech therapist.

The patient as an individual. The patient's reaction to his speech disability. The effect of other disturbances on speech.

Types, causes, prophylaxis, diagnosis, prognosis, and treatment of the following conditions (in detail) :

Speech retardation : alalia, dyslalia (of organic and functional origin).

Cleft palate speech.

Minor anomalies of the upper respiratory tract.

(The following section is relevant only to the conditions of disorganised speech mentioned above) :

Case taking, investigation and assessment. The application of Phonetics in the practice of speech therapy. Breathing exercises. Relaxation. Direct and indirect speech therapy. The psychological approach. Individual and Group treatment.

For Part II of the Examination candidates will be required to show knowledge of the following :

Organisation, administration and equipment of a speech clinic.

The patient as an individual. The patient's reaction to his speech disability. The effect of other disturbances on speech.

Types, causes, prophylaxis, diagnosis, prognosis, and treatment of the following conditions (in detail) :

Stammering.

Cluttering.

Dysphonia and Aphonia, including Rhinophonia (of organic and functional origin).

Dysphasia and Aphasia, and associated reading and writing disturbances.

Dysarthria and Anarthria.

Hysterical states affecting speech.

Respiratory affections encountered in the speech clinic.

Case taking, investigation and assessment. The application of Phonetics in the practice of speech therapy. Breathing exercises. Relaxation. Direct and indirect speech therapy. The psychological approach. Individual and Group treatment.

The papers may also include questions set on the subject matter of Part I of the Speech Pathology and Therapeutics syllabus.

Practical Examination

The Examiners will observe the candidates at work with patients in the clinic.

Clinical casebooks compiled by the candidates during the final year of training must be available at the time of the examination.

Oral Examination.

Candidates will be required to answer questions and discuss points arising out of

(a) the subject matter of the written papers in Speech Pathology and Therapeutics

(b) their Practical Examination

CLINICAL ATTENDANCES

Provision should be made for **150-200 Clinical Attendances** in the course of training.

Students are required to make **120 Clinical Attendances as a Minimum** prior to their final examination.

Clinical Observation :

A Minimum of **40 clinical attendances** must be made for the observation of treatment and organisation. Of these :—

15 at least must be at a **hospital ;**

15 at least must be at a **school clinic ;**

the remainder at either or at both.

Treatment under Supervision :

A Minimum of **80 clinical attendances** must be made for the purpose of the treatment of defects and disorders of voice, speech and language, in children and adults, under supervision of a qualified speech therapist ; and in order to gain experience in the administration and organisation of speech clinics. Of these :—

20 at least must be at a **hospital ;**

20 at least must be at a **school clinic ;**

the remainder at either or at both.

PSYCHOLOGY

The work throughout should be directly related to human behaviour and activities ; and also to the students' clinical observation and experience.

Subject matter of Psychology. Definition, content and scope.

Sensation : perception : retentivity : imagery : memory.

Reflex activity ; the conditioned reflex. Habit formation. Maturation and Learning. Attention. Higher thought processes. Fantasy. Suggestion and prestige. Development of language.

Instincts and emotions. Pleasure and unpleasure. Sentiments ; attitudes ; complexes. Will.

Character. Various uses of the term Personality.

Abilities, including Intelligence and methods of testing. Individual differences, including the super-normal and sub-normal.

The child and the adolescent ; intellectual, social, emotional and physical development : characteristics and difficulties. Play and the use of leisure.

Effects of environment : material and social.

Environmental and personal causes of fatigue. Conservation and use of energy.

Taking of case histories : the psychological approach to the patient ; child, adolescent and adult.

Contemporary Schools in outline :
Psycho-analysis, Individual Psychology, Analytical Psychology, Gestalt, Behaviourism, Hormic.

The following (with special reference to Speech Therapy) :
Schizophrenic reaction types. Affective reaction types. Psychopathic reaction types. Obsessive Compulsive States. Hysteria. Anxiety States.

NEUROLOGY

The programme below should be seen in that perspective which will best equip the student with a basic understanding of neurological conditions encountered in the speech clinic.

Introduction. The applied anatomy and physiology of the nervous system.

Neuro-anatomy and neuro-physiology as applied to the problems of disordered speech and language.

Diseases of nervous system in which speech and language may be affected.

Congenital Disorders.
With emphasis on those conditions amenable to speech therapy.

Traumatic disorders.

Infective disorders.
Purulent. Cerebral and meningeal (local and blood-borne).

Virus. Encephalitis, myelitis, poliomyelitis.
Granulomatous. Syphilis and tuberculosis.

Neoplastic disorders.
Benign.
Malignant (primary and secondary).

Degenerative disorders.
Vascular disorders. Thrombosis, haemorrhage, embolism : aneurysm.
Abiotrophic disorders.
Demyelinating disorders.

Toxic disorders.
Endogenous and exogenous.

Epilepsy and Migraine.

Psychogenic disorders. Conditions simulating organic nervous disease.

BIBLIOGRAPHY

There are no set books for these Examinations. The books listed below are amongst those which students will find useful in whole or in part. Students are advised to consult their Lecturers as to the use of these textbooks.

NORMAL VOICE AND SPEECH

Aikin, W. A. ... ... The Voice. (Longmans).
Bragg, W. ... ... The World of Sound. (Bell & Sons Ltd.).
Compton, J. (ed.) ... ... Spoken English. (Methuen).
McAllister, A. H. ... A Year's Course in Speech Training. (Murray).
Mills, W. ... ... Voice Production. (Curwen).
Thurburn, G. ... ... Voice and Speech. (Nisbet).

PHONETICS

Armfield, G. Noel ... General Phonetics. (Heffer).
Armstrong and Ward ... Handbook of English Intonation. (Heffer).
Jones, Daniel ... ... An Outline of English Phonetics. (Heffer).
Ward, Ida ... ... Phonetics of English. (Heffer).
Ward, Ida ... ... Speech Defects (Dent).

ANATOMY AND PHYSIOLOGY

Bainbridge and Menzies ... Essentials of Physiology, edited by H. Hartridge. (Longmans).
Best and Taylor ... ... The Living Body. (Chapman & Hall).
Cunningham, D. J. ... Textbook of Anatomy, edited by J. C. Brash and E. B. Jamieson. (Oxford University Press).
Gray, H. ... ... Anatomy, edited by T. B. Johnston and J. Whillis. (Longmans).
Jamieson, E. B. ... ... Illustrations of Regional Anatomy. Sections I, II, V. (Livingstone).
Keene and Whillis... ... Anatomy for Dental Students. (Arnold).
Pearce, E. C. ... ... Anatomy and Physiology for Nurses. (Faber).
Raeburn, J. K. and H. A., and Gration, H. M. ... Anatomy, Physiology and Hygiene for Nurses, 1940. (Murray).
Raeburn, J. K. and H. A., and Gration, H. M. ... Practical Anatomy, Physiology and Hygiene (Supplement to 1940 edition).
Ransom, S. W. ... ... Anatomy of the Nervous System. (Saunders, U.S.A.)

SPEECH PATHOLOGY AND THERAPEUTICS

Boome, Baines and Harries...	Abnormal Speech. (Methuen).
Boome and Richardson ...	Relaxation in Everyday Life. (Methuen).
Finck, D. H.	Release from Nervous Tension. (Allen & Unwin).
Gifford, M. F.	Correction of Nervous Speech Disorders. (Prentice-Hall, Inc.)
Goldstein, K.	The After Effects of Brain Injuries in War. (Heinemann).
Hahn, Eugene	Stuttering. Significant Theories and Therapies. (Stanford University Press).
Jacobson, E.	Progressive Relaxation. (University of Chicago Press).
Jespersen, D.	The Origins of Speech. (Allen & Unwin).
Kingdon Ward, W. ...	Stammering. Problems and Treatment. (Cassells).
Kinnier Wilson, S. A. ...	Aphasia. (Kegan Paul).
Lewis, M. M.	Infant Speech. (Kegan Paul).
MacDonald Ladell... ...	The Stammerer Unmasked. (Pitman).
McAllister, A. H. ...	Clinical Studies in Speech Therapy. (University of London Press).
Morley, M. E.	Cleft Palate and Speech. (Livingstone).
Orton, Samuel	Reading, Writing and Speech Difficulties. (Chapman & Hall).
Schlauch, M.	The Gift of Tongues. (Allen & Unwin).
Seth and Guthrie	Speech in Childhood. (Oxford University Press).
Sheridan, M. D.	The Child's Hearing for Speech. (Methuen).
Stein, L.	Speech and Voice. (Methuen).
Van Riper, C.	Speech Correction. (Prentice-Hall, Inc.)
Van Thal, J. H.	Cleft Palate Speech. (Allen & Unwin).
Weisenberg and McBride...	Aphasia. (Commonwealth Fund).
West, Kennedy and Carr...	Rehabilitation of Speech. Harper).
Wepman, Joseph M. ...	Recovery from Aphasia (Ronald Press).

NEUROLOGY

Berry, R. J. A.	Your Brain and Its Story. (Oxford University Press).
Brain, W. Russell	Diseases of the Nervous System. (Oxford University Press).
Elliott, H. Chandler ...	Textbook of the Nervous System. (Lippincott, U.S.A.)
Sherrington, C.	Integrative Action of the Nervous System. (Cambridge University Press).
Walshe, F. M. R. ...	Diseases of the Nervous System. (Livingstone).

PSYCHOLOGY

Bowley, Agatha	The Natural Development of the Child. (Livingstone).
Bühler, Charlotte	From Birth to Maturity. (Kegan Paul).
Burbury, Balint and Yapp...	Child Guidance. (Macmillan).
Burt, Cyril	The Backward Child. (University of London Press).
Curran and Guttman ...	Psychological Medicine. (Livingstone).
Eisensen, Jon	Psychology of Speech. (Harrap).
Fleming, C. M.	Adolescence. (Routledge and Kegan Paul).

PSYCHOLOGY (continued)

Flugel, J. C.	A Hundred Years of Psychology. (Duckworth).
Gesell, Arnold	The First Five Years of Life. (Methuen).
Jackson and Todd ...	Child Treatment and the Therapy of Play. (Methuen).
Knight, Rex and Margaret	A Modern Introduction to Psychology. (University Tutorial Press, Ltd.)
Knight, Rex	Intelligence and Intelligence Testing. (Methuen).
MacKenzie, N.	Aids to Psychology for Nurses. (Ballière, Tindall & Cox).
McDougall, W.	The Energies of Man. (Methuen).
Mess, H. A.	Social Structure. (Allen & Unwin).
Miller and Dollard ...	Social Learning and Imitation. (Kegan Paul).
Munn, N. L.	Psychology, the fundamentals of human adjustment. (Harrap).
Schonell, F. J.	Backwardness in the Basic Subjects. (Oliver and Boyd).
Shand, A. F.	Foundations of Character. (Macmillan).
Sherrington, C.	Man on his Nature. (Cambridge University Press).
Spens, W.	Report on the Education of the Adolescent (Stationery Office).
Terman and Merrill ...	Measurement of Intelligence. (Harrap).
Tredgold, A. F.	Manual of Psychological Medicine. (Ballière, Tindall & Cox).
Valentine, C. W.	Psychology, and Its Bearing on Education. (Methuen).
Wickes, F.	The Inner World of Childhood. (Appleton).
Woodworth, R. S. ...	Psychology : A Study of Mental Life. (Methuen).
Woodworth, R. S. ...	Contemporary Schools of Psychology. (Methuen).
Young, Kimball	Handbook of Social Psychology. (Kegan Paul).
Young, Kimball	Personality and Problems of Adjustment. (Kegan Paul).

J. J. HILNER & SONS
LTD.
PRINTERS
BRENTFORD · MIDDLESEX

Appendix 3b.

REGULATIONS AND SYLLABUS FOR THE EXAMINATIONS OF THE CHARTERED SOCIETY OF PHYSIOTHERAPY

Approved by Council on September 6th, 1948

Price 8d. per copy.

REGULATIONS AND SYLLABUS FOR THE EXAMINATIONS OF THE CHARTERED SOCIETY OF PHYSIOTHERAPY

THE passing of the Education Act and the formation of a Ministry of Education, together with the publication of the Goodenough Report on Medical Education, set the hall-mark upon 1944 as a year of outstanding progress in all matters of education, both general and professional.

During the whole of 1944, the Chartered Society worked on the revision of its scheme of training in order that the education of Physiotherapists might be brought into line with that of their colleagues in other branches of the Medical Services. It was interesting to note that some of the ideas embodied in the Goodenough Report were already incorporated in the draft of the new syllabus of the Chartered Society of Physiotherapy.

The Chartered Society has attempted to view the preparation of students in the profession of Physiotherapy as a graduated process of education continuing from Secondary School to the point at which membership of the Society is attained. All students are required to enrol with the Chartered Society of Physiotherapy within 6 months of the beginning of the three years training. They must be at least 21 years of age by the date on which they qualify for entry to the Final Examination (May 1st and November 1st).

The training covers the equivalent of three years full-time and the continuity of the training must be maintained. The whole of the course may be taken in the Hospital Schools as at present, but care has been taken to arrange the syllabus so that at any time the first year's course may be taken at a University. Negotiations with the Universities on this subject would, of course, be necessary. In any case, it is visualised that the course in a Physiotherapy Training School would be planned on University lines, and that students would be encouraged to carry out individual work and to rely on private study to amplify lectures and demonstrations.

Intending students, teachers and authorities of Training Schools are reminded that there are bursaries and grants available for accredited courses of study. It is hoped that in the future scholarships may be forthcoming and it has therefore been the aim of the Chartered Society to ensure that its course of study will enable students to qualify for such assistance.

The Chartered Society is indebted to the Professors of Medicine, Surgery, Anatomy, Physiology and kindred subjects who have given so generously of their time and knowledge in the preparation of the syllabus.

REGULATIONS

Applicants for membership of the Chartered Society of Physiotherapy are required to have passed the qualifying examination of which particulars are set out on pages 10–18.

1. The course of study must be the equivalent of three years full-time, and the continuity of the training must be maintained.

During the first year in a Hospital School, or the first academic year in a University course, students should have a vacation of 8 to 12 weeks.

No work on patients should be undertaken during the first 6 months, but students may be allowed to undertake routine departmental duties.

During the second and third years' training a minimum of 8 weeks' leave per year should be given.

Students should gain the equivalent of not less than 3 weeks' full-time practical experience in ward work and discipline. The arrangement of this period is left to the discretion of the Principals.

2. **As from 1st September, 1953**

Students of Physiotherapy must:

(*a*) be enrolled with the Chartered Society of Physiotherapy as students within the first six months of the beginning of training;

(*b*) be at least 21 years of age by the date on which they qualify for entry for the Final Examination (May 1st and November 1st);

(*c*) *either*

(i) hold the School Certificate or its equivalent. Candidates who hold the School Certificate but did not pass in *either* Physics and Chemistry *or* in Chemistry-with-Physics must before entry to a training school have covered the Chemistry-with-Physics syllabus for the General Certificate of Education and must have reached the standard required to pass in this subject at the ordinary level.

or

(ii) hold the General Certificate of Education in a minimum of four subjects at the ordinary level, which must include:

(*a*) English Language,

(*b*) One or more of the following:

Physics
Chemistry
Chemistry-with-Physics
General Science
Additional General Science or General Science II
Biology
Zoology
Botany
Geology
Elementary Physiology.

Candidates who have not passed in either

(i) Physics and Chemistry, or

(ii) Chemistry-with-Physics

in their examination must submit evidence that they have covered the Chemistry-with-Physics syllabus and have reached the standard required for a pass in this subject at the ordinary level.*

SCOTLAND

Candidates who hold the Scottish Higher Leaving Certificate will be considered to have complied with (*c*) (i) provided the Physics and Chemistry sections of Science were passed in the examination. They will be considered to have complied with (*c*) (ii) if they hold the Scottish Leaving Certificate, provided this included passes at the Lower Grade in a minimum of four subjects, which must include:

(*a*) English Language,

(*b*) Science.

Candidates who have not passed in the Physics and Chemistry sections of Science in the examination must submit evidence that they have covered the syllabuses and have reached the standard required for passes in these sections at the lower grade.

NORTHERN IRELAND

Candidates who hold the Senior Certificate of the Northern Ireland Ministry of Education will be considered to have complied with either (*c*) (i) or (*c*) (ii) provided Physics and Chemistry were passed in the examination.

Candidates who have not passed in both Physics and Chemistry in the examination will not be considered to have complied with either (*c*) (i) or (*c*) (ii). They must submit evidence that they have covered the syllabuses in Physics and Chemistry and have reached the standard required for passes at the ordinary level.

EIRE

Candidates who hold the Intermediate Certificate of the Irish Department of Education, or the Matriculation Certificate of the National University, will be considered to have complied with either (*c*) (i) or (*c*) (ii) provided the Physics and Chemistry sections of Science were passed in the examination.

Candidates who have not passed in the Physics and Chemistry sections of Science in the examination must submit evidence that they have covered the syllabuses for the Physics and Chemistry sections of Science for either the Intermediate Certificate of the Irish Department of Education or for the Matriculation Certificate of the National University and have reached the standard required for passes in these sections (in the case of the Intermediate Certificate, at the lower grade).

The above regulations regarding Northern Ireland and Eire may be revised in the event of changes in these examinations.

* N.B.—Students beginning training *before* 1st September, 1953, will be required, if they have not passed in the required Science subjects in the School Certificate Examination or in the General Certificate of Education, to submit evidence that they have covered either the General Science syllabus or the Physics and Chemistry syllabuses for either the School Certificate Examination or for the General Certificate of Education and have reached the standard required for a pass.

It should be noted that four subjects at the ordinary level is the minimum requirement, but candidates are advised to cover as wide a curriculum as possible, to hold the General Certificate of Education in more than the minimum four subjects and to take one Science subject at the advanced level.

Candidates should spend at least one further year in continuing their education, preferably at school. They are advised to study Biology before entry to training. Candidates should have taken physical training throughout the school.

3. The examinations will be taken as follows:

Preliminary Examination:

Written and oral examination—after not less than 18 months' training.

This will consist of:

Two written papers of 3 hours each in Anatomy and Physiology and an oral examination of approximately 15 minutes;

One written paper of 3 hours in Principles of the Production and the Physiological Effects of Electrical Currents and Radiations used in Physiotherapy.

An assessment of the work of candidates in these subjects will be submitted by the Principals of the Training Schools for the use of the Examinations Board.

Candidates must submit proof of attendance at demonstrations on dissected parts and at demonstrations of Practical Physiology.

Candidates are required to have attended classes in Educational Gymnastics.

Intermediate Examination:

Written and oral examination—after not less than 30 months' training.

This will consist of:

One written paper of 3 hours in the Theory and Technique of Massage and Movement;

One half-hour practical examination in the Technique of Massage;

One half-hour practical examination in the Technique of Movement, including Group Exercises;

One half-hour practical examination in the Technique of Electrotherapy (an additional 10 minutes will be allowed for the preparation of the patient);

Two written papers of 3 hours each on the Treatment of Patients by Physiotherapy:

Paper A: Medical conditions.

Paper B: Surgical conditions.

Candidates will be expected to show a knowledge of Anatomy, Physiology and Pathology relevant to the above subjects.

An assessment of the work of candidates in these subjects will be submitted by the Principals of the Training Schools for the use of the Examinations Board.

Final Examination:

Practical Examination—after not less than the equivalent of three years' full-time training.

This will consist of a Practical Examination of 1½ to 2 hours' duration on any form of Physiotherapy included in the Syllabus.

Candidates will be required to demonstrate:—

(*a*) the treatment of one long case in which the candidate may be asked to show methods which might be applied for the treatment of the condition. The treatment may be by Massage, Medical Gymnastics and/or Electrotherapy: and

(*b*) the treatment of two short cases in which the precise treatment is specified, one to be by Electrotherapy and one by Massage and Movement.

An assessment of the work of candidates in preparation for the Final Examination will be submitted by the Principals of the Training Schools.

4. Candidates will be required to spend during their training a minimum of 750 hours on treatments of bona fide patients before entering for the Final Examination, but they are recommended to spend 1,000 hours on this work. The allocation of these hours will be left entirely to the discretion of the Principal of the Training School. Observation of the treatment of patients and practice on fellow students do not contribute to the required number of hours. A proportion of lectures in clinical subjects must be given by specialists in the appropriate subjects.

The number of hours to be spent on lectures and demonstrations will be left to the discretion of the Principal, but a minimum of 1,000 hours is advised, distributed as follows:—

Preliminary and Intermediate Examinations:

Anatomy and Physiology, 250 hours. A minimum of 10 attendances at demonstrations on dissected parts and 5 attendances at practical demonstrations on physiology is compulsory: a total of 30 attendances at practical classes is recommended as desirable. The greater proportion of these attendances should be under the guidance of demonstrators in Anatomy and Physiology.

Basic Physics and Electricity	150 hours.
Medical and Surgical Conditions . .	200 hours.
Theory of Massage and Movement . .	150 hours.
Technique of Massage and Movement . .	Owing to the variation in the needs of students it is impossible for guidance to be given as to the number of hours.
Technique of Electrotherapy	
Treatment Classes	

5. Candidates may not enter for more than one Examination (viz. Preliminary, Intermediate, or Final) on any one occasion. Candidates who have failed to satisfy the examiners and who have re-entered for part or the whole of the Intermediate Examination and completed their pass may, provided they have complied with the regulations for entry, take the Final Examination at an interim Final Examination to be held in London at an early date subsequent to the publication of Examination results.

Candidates who have failed to pass the Final Examination on three occasions are required to undergo at least three months' additional full-time training at one of the recognised training schools before further entry.

6. Candidates will be required to pay the following examination fees:

	£	s.	d.
Preliminary Examination	4	4	0
Intermediate Examination	8	8	0
Final Examination	8	8	0

The fees for re-entry to the Examinations will be:

Preliminary Examination

Anatomy and Physiology	3	3	0
The principles of the Production and the Physiological Effects of Electrical Currents and Radiations used in Physiotherapy ..	1	11	6

Intermediate Examination:

Theory and Technique of Massage and Movement	1	11	6
Technique of Massage (Practical)	1	11	6
Technique of Movement (Practical) ..	1	11	6
Technique of Electrotherapy (Practical) ..	1	11	6
Treatment of Patients by Physiotherapy ..	2	2	0
Final Examination	8	8	0

Withdrawal Fees

Candidates withdrawing from any examination for reasons of illness will not be required to pay a withdrawal fee. The notice of withdrawal must be accompanied by a medical certificate.

Candidates withdrawing from any examination for reasons other than illness will be required to pay a withdrawal fee of 10s. 6d. if the withdrawal takes place 4 weeks or more before the written examination, or £1 1s. 0d. if the withdrawal takes place less than 4 weeks before the written examination. In cases of re-entry candidates who withdraw at any time before the written examination will be required to pay a withdrawal fee of 5s.

Candidates who fail to present themselves for any examination without notice, or who withdraw after having presented themselves for part of the examination and who fail to satisfy the examiners as to their reasons for withdrawal, will forfeit the examination fee.

7. The examinations will be held twice a year, in May and November.

8. Every student entering for the examinations must return the form of entry, duly completed, together with such other documents as are required, not later than March 1st for the May examinations and September 1st for the November examinations. All cheques should be made payable to the Chartered Society of Physiotherapy.

9. The Council, through its authorized agents, may refuse to admit to examination, or to proceed with the examination of, any candidate who has infringed an examination regulation of the Society or is considered to be guilty of behaviour prejudicial to the proper management and conduct of the examination.

10. Those candidates successful in the Final Examination are eligible to apply for admission as registered members of the Chartered Society of Physiotherapy.

SYLLABUS

Throughout the training the principles of rehabilitation should be taught and related to all treatments.

Rehabilitation, as far as Physiotherapy is concerned, may be defined as follows:—

"Measures, ancillary to medical and surgical treatment, designed to assist the restoration of maximal function in sick and injured persons."

Physiotherapeutic Methods may be classified under the following headings:—

(*a*) Individual Remedial Treatment—

Massage, manipulations and movements.

Remedial exercises, with or without apparatus.

Electrotherapy.

Hydrotherapy. At present a special examination is arranged in this subject.

(*b*) Group Remedial Exercises—

Free, assisted or resisted by means of remedial apparatus.

Remedial games.

Attention should be given throughout the 3 years' training to general physical education, practical class teaching and voice production.

PRELIMINARY EXAMINATION
ANATOMY AND PHYSIOLOGY

The cells, tissues, organs and systems of the body (correlation of structure and function). It is not intended that minute structure should be taught in detail.

LIVING ANATOMY

Recognition of structure in the living body by inspection and palpation. Ability to relate to the surface of the living body the position of the chief structures.

BONES AND JOINTS

Bones: General structure and form; important ligamentous attachments. Small bones of hand and foot to be learnt articulated only and without detail; Calcaneum (Os Calcis) and Talus (Astragalus) to be taken in detail.

General features of the skull. Names and positions of bones articulated only, foramina for the cranial nerves.

Development and growth of bone. Epiphysial cartilages of long bones of extremities (exact ages of ossification not required). Calcium metabolism.

Joints: General classification. Synovial fluid. Gross structure of each joint; movements in the joints and their limitations; chief relations. Group movements of joints.

MUSCULAR SYSTEM

Striated, unstriated and cardiac muscle. Tendons, aponeuroses and fasciae. Physiological properties of muscle, heat production and work. Effects of muscular work. Fatigue. Training.

Position, attachments, action and nerve supply of skeletal muscles, including chief muscles of face and muscles of mastication with their general shape and direction of fibres.

Kinesiology. Action of muscles in commoner movements and attitudes. Group action of muscles.

Mechanics of bodily movement. Leverage and angle of pull. Force of gravity. Ranges or paths of movement. Axes and planes of movement.

Not required in detail: Muscles deep to second layer of back muscles; small muscles between Atlas and skull.

NERVOUS SYSTEM

Brain and spinal cord. Brief outline of shape, position, structure and function, including reflex action. Nervous regulation of muscle tone, postural reflexes and voluntary movement. Principal masses of grey matter; chief tracts and connections. Cerebro-spinal fluid and meninges.

Peripheral nervous system. Skin and muscle sensibility. Cranial nerves. Distribution of 5th, 7th, 10th and 11th nerves. Names and functions only of others. Spinal nerves: branches, course, relations and distribution.

Autonomic System. General position, structure and function.

Nervous correlation of the various parts of the body.

Degeneration and regeneration of nerve.

SKIN

General structure and function.

VASCULAR SYSTEM

Blood cells and plasma. Properties of blood, including coagulation. Functions of blood.

Heart. Structure, position and mode of action. Pericardium. General account of circulation.

Blood vessels. Structure. Position and general distribution of main arteries and veins, including arches of hand and foot (Venous sinuses and diploic veins not required). Maintenance of blood pressure. The pulse. Nervous control of circulation. Changes in circulation due to exercise.

Tissue Fluids. Lymphatic system; its general function and position of lymphatic vessels, main trunks and glands.

RESPIRATORY SYSTEM

Air passages and lungs. Structure, general relations and position. Pleurae. Mechanism and regulation of breathing. External and internal respiration. Changes in respiration in exercise.

FOOD AND FOODSTUFFS

Carbohydrates, proteins, fats, salts, water and vitamins. Factors to be considered in planning an adequate dietary.

ALIMENTARY CANAL, LIVER AND PANCREAS

Structure, position and general relations. Sub-divisions of the alimentary canal. Function of liver and pancreas. General arrangement of mesenteries.

Outline of process of digestion in mouth, stomach and intestines (no detailed chemistry required). Movements of alimentary canal and their control. Absorption in alimentary canal.

METABOLISM

After-history of absorbed foodstuffs.

TEMPERATURE

Maintenance and regulation.

URINARY SYSTEM

Kidneys, ureters, bladder and urethra. Structure and general position. Function of kidney. Micturition.

ENDOCRINE GLANDS

Brief outline of functions as a whole. Chemical correlation of the different parts of the body.

REPRODUCTIVE SYSTEM

General mechanism of reproduction (in male and female). Uterus. Position. Changes in menstruation and pregnancy. Other organs in male and female—position only.

ANATOMICAL REGIONS

The following should be known, with their formation and principal contents: Anterior and posterior triangles of neck (contents of anterior not in detail). Axilla. Cubital (ante-cubital) fossa. Femoral (Scarpa's) triangle. Subsartorial canal. Popliteal space.

The use of the Birmingham Revision of the Basle *Nomina Anatomica* is recommended.

MASSAGE, MANIPULATIONS AND MOVEMENTS

1. **THEORY OF MASSAGE (MANIPULATION OF SOFT TISSUES)**
   Effleurage, Petrissage, Friction, Tapôtement or Percussion, Shaking, Vibration, Stroking.

2. **METHODS OF OBTAINING RELAXATION**

3. **STARTING POSITIONS: FUNDAMENTAL AND DERIVED***

4. **MOVEMENTS (WITH AND WITHOUT APPARATUS)***
   (*a*) Passive movements.
   (*b*) Assisted and resisted movements.
   (*c*) Principles and use of apparatus for fixation, suspension, assistance, resistance and traction.
   (*d*) Mechanics of bodily movement, group action of muscles, group movement of joints.

5. **THEORY OF MASSAGE AND MOVEMENT: ANALYSIS OF SIMPLE MUSCLE ACTION**

BASIC PHYSICS AND ELECTROTHERAPY

GENERAL PRINCIPLES

Structure of matter (definition of molecule, atom, proton, neutron, electron, ion).

Simple phenomena of current electricity and electro-statics (e.g. electric charges, conduction, insulation, capacity, ionisation). Simple magnetic and electro-magnetic phenomena. Simple physics of heat: definition of heat and temperature, production, transmission, measurement and effect of heat.

Simple physics of oscillations, definition, characteristics (including resonance) and types (sustained, unsustained, damped and undamped). Elementary physics of visible, infra-red and ultra-violet radiations and position in electro-magnetic spectrum.

ELECTRICAL CIRCUITS

Difference of potential (P.D.). Electromotive force (E). Intensity of current (I). Resistance (R). Density of current. Definition of practical units—Volt, Ohm, Coulomb, Ampere, Milliampere, Watt, Kilowatt-hour, Henry, Farad, Microfarad.

Ohm's Law and Joule's Law. Connection of circuit components in series and parallel. Instruments for the measurement of currents and voltages.

---

* For specific details regarding mechanics required for these positions, movements and apparatus, see "Notes on the Syllabus of Training in Exercises for the Examinations of the Chartered Society of Physiotherapy."

TRANSMISSION OF ELECTRICAL ENERGY

Electronic conduction in metals and non-metals.

Ionic convection in gases (arcs and sparks), in fluids (Electrolytic phenomena).

Transmission by displacement (Condenser current).

Transmission across space in hot cathode valves.

Transmission by electro-magnetic phenomena.

DISTRIBUTION OF A.C. AND D.C. MAIN SUPPLIES

Light and power circuits.

Safety devices and precautions.

A. DEFINITION, DIAGRAMMATIC REPRESENTATION AND PHYSICAL PROPERTIES AND PRODUCTION OF LOW FREQUENCY THERAPEUTIC CURRENTS

(1) Galvanic current.
- (*a*) Production by chemical means, simple voltaic cell, Leclanché cell.
- (*b*) Production by dynamos (Principles only).
- (*c*) Production by rectification (valve and metal rectifiers from A.C. Mains).

(2) Muscle stimulating currents.
- (*a*) Modified galvanic (interrupted and surged).
- (*b*) Sinusoidal.
- (*c*) Faradic—Smart-Bristow type.
- (*d*) Valve generated (principles only).

(3) The Regulation of Currents.
- (*a*) Potential divider.
- (*b*) Variable resistance.

(4) Modification of Currents.
Interrupting, reversing and surging devices.

(5) Measuring devices.
(*a*) Milliameter and
(*b*) Voltmeter } for measuring D.C.

B. DEFINITION, DIAGRAMMATIC REPRESENTATION AND PHYSICAL PROPERTIES AND PRODUCTION OF HIGH FREQUENCY THERAPEUTIC CURRENTS

(1) Long-Wave Diathermy (High Frequency current).
Principles only of construction and operation of spark gap and valve high-frequency generators for therapeutic purposes.

(2) Short-wave Diathermy (Ultra-high Frequency current).
Principles only of construction and operation of valve high frequency generators for therapeutic purposes.

(3) The Regulation of Currents.
   (*a*) Coupling.
   (*b*) Anode Voltage.
   (*c*) Filament voltage.
   (*d*) Grid bias.

(4) Measuring devices.
   (*a*) Thermo-couple meters.
   (*b*) Tuning indicators.

C. PRODUCTION OF RADIATIONS

(1) Construction and operation of Infra-red generators.

(2) Construction and operation of Ultra-violet generators, Carbon Arc; Mercury Vapour Arc; (Electronic discharge types, Air and Water Cooled).

(3) Accessories.
   (*a*) Quartz applicators.
   (*b*) Filters.

PHYSIOLOGICAL EFFECTS OF CURRENTS AND RADIATIONS AS LISTED ABOVE UNDER A, B, AND C.

ELECTROTHERAPY

A. THERAPEUTIC USES AND TECHNIQUE OF APPLICATION OF LOW FREQUENCY CURRENTS

APPARATUS—Care, maintenance and practical use.

APPLICATION

Technique of application of direct current. Modified and unmodified. Introduction of chemical substances of therapeutic value.

Technique of application of alternating currents, Sinusoidal, Faradic and allied currents. Therapeutic uses.

Conditions suitable for treatment. Contra-indications.

ELECTRICAL REACTIONS

Elementary conception of a motor unit and its reaction to electrical stimulation. Significance and location of motor points.

Normal reaction; reaction of incomplete and complete denervation; absence of reaction in absolute degeneration.

Candidates will be expected to understand the significance of muscle reactions in relation to treatment, but not to interpret them to diagnostic ends.

B. THERAPEUTIC USES AND TECHNIQUE OF APPLICATION OF HIGH FREQUENCY CURRENTS

APPARATUS—Care, maintenance and practical use.

Types of electrodes in common use, including condenser and cable electrodes for short wave therapy.

APPLICATION

Technique of application, long-wave diathermy (including superimposed currents), short-wave and ultra short-wave currents. Conditions suitable for treatment. Contra-indications.

C. THERAPEUTIC USES AND TECHNIQUE OF APPLICATION OF RADIATIONS

APPARATUS—Care, maintenance and practical use.

APPLICATION

Technique of application of ultra-violet and infra-red irradiations. Conditions suitable for treatment. Contra-indications.

RISKS ATTACHED TO APPLICATION OF PHYSICAL AGENTS TO THE BODY

Precautions against accidents. Treatment to be given if these occur.

Note: *It is not intended that members of the Chartered Society of Physiotherapy should take the responsibility of the application of electrotherapy in conditions where its application is attended by special risks.*

NOT FOR EXAMINATION

PSYCHOLOGY

Definition and subject-matter of Psychology. Spheres of application with special reference to Physiotherapy. Reference to some contemporary schools of Psychology. Reflex activity and movement as a whole. Conditioned Reflexes. Habit formation. Feeling. Instinctive tendencies and the Emotions.

Unconscious motives and behaviour. Mental defence mechanisms, e.g. rationalisation, dissociation, projection, symbolism, over-compensation, displacement, sublimation, repression.

Sensation, perception, imagery, memory, ideation, the development of concepts, reason. The learning and achieving of skills. The growth of sentiments, mental integration and the use of will. Individual differences in ability and character.

Suggestion and its significance in normal and abnormal conditions.

Inter-relation between the autonomic nervous system and the emotions with the consequent reactions.

Mental aspects of fatigue.

Psychology of growth and mental development with reference to the characteristics of different age groups.

Note: Lecturers should endeavour to indicate the practical application of the above psychological knowledge relating to clinical subjects, such as hysteria, etc.

It is thought that 18 lectures should be sufficient to cover the syllabus.

ETHICAL LAWS AND PROFESSIONAL ETIQUETTE

INTERMEDIATE EXAMINATION

MASSAGE, MANIPULATIONS AND MOVEMENTS

Apparatus and equipment: care and maintenance.

Applied kinesiology, including starting positions, analysis of muscle action and joint movement.

Technique, effects on normal and pathological conditions, uses and contra-indications of Massage, Manipulations and Movements.

1. **PRACTICAL TECHNIQUE OF MASSAGE**

2. **MECHANICS OF BODILY MOVEMENT, GROUP ACTION OF MUSCLES, GROUP MOVEMENT OF JOINTS**

3. **MOVEMENTS (WITH AND WITHOUT APPARATUS)**
   - (*a*) Free exercises.
   - (*b*) Assisted exercises.
   - (*c*) Resisted exercises.
   - (*d*) Posture training.
   - (*e*) the value of simple occupations in the home or hospital and a knowledge of how to direct the patient to use them as a means of graduated exercises.

4. **MOBILIZATION OF JOINTS**

   Use of Traction.

   Movements within the active range.

   Manipulations of joints to restore movement, including auxiliary gliding movements.

5. **CLASS WORK**

   Group treatments using free exercise, apparatus work and games; preparation of tables and progression. Games with curative purposes for indoor and outdoor use.

6. **DISTINCTION BETWEEN THE USE OF**
   - (*a*) Free Exercises,
   - (*b*) Apparatus for remedial work,
   - (*c*) Games,

   for remedial, prophylactic and diversional purposes.

CARE OF PATIENT

Lifting and bed-making, temperature, pulse, respiration, splinting, bandaging, fomentations, compresses, sterile dressings, removal of strapping, prevention of pressure sores, cradle, lubricants, general care of skin.

MEDICAL AND SURGICAL CONDITIONS

1. General Pathology. Hypertrophy. Atrophy. Inflammation. Reaction to injury, resolution and repair. Degeneration.

2. Injuries to Bones, Joints, Muscles and Tendons. Fractures, separation of Epiphyses. Dislocations. Prolapsed intervertebral disc. Strains and Sprains. Synovitis and Teno-synovitis. Rupture of muscles and tendons and treatment after suture. Persistent Oedema.

3. Deformities. Kyphosis. Lordosis. Flat Back. Scoliosis. Coxa Vara. Congenital dislocation of the hip. Genu Valgum and Genu Varum. Pes Planus and Pes Cavus. Talipes. Hallux Valgus and Hallux Rigidus. Congenital and acquired Torticollis. Winged Scapulae. Cervical rib. Disabilities associated with faults of posture. Painful conditions arising from deformity including Metatarsalgia, Hammer toes, Dropped arch, etc.

4. Diseases of Muscle and Fasciae. Muscular Dystrophies. Myositis ossificans. Volkman's Ischaemic Contracture. Dupuytren's Contracture. Infective and Traumatic Fascitis as distinct from Rheumatic Fibrositis. Conditions due to alteration of muscle tone and function after disease, injury and surgical interference.

5. Diseases of Bone and Joints. Acute and chronic infective Arthritis. Rheumatoid Arthritis. Tuberculous Arthritis. Gout and Osteo-arthritis. Spondylitis. Osteo-myelitis. Osteo-chondritis. Paget's disease. Osteoporosis. Delayed union of fractures. Operative procedure such as arthrodesis, arthroplasty, spinal fusion.

6. Diseases of the Circulatory System. Cardiac disorders—myocardial, valvular and functional. Arterio-Sclerosis. Functional vaso-motor disturbances, including Raynaud's Disease and Chilblains. Hypostatic and Lymphatic Oedema. Endarteritis, Thrombo-phlebitis, Embolism and Varicose Veins.

7. Diseases of the Respiratory System. Enlarged Tonsils and Adenoids. Sinusitis. Bronchitis. Bronchiectasis. Emphysema. Asthma. Hay Fever. Pleurisy. Empyema and Pneumonia. Phthisis. Pre-operative and post-operative treatment of disease and injury of the chest.

8. Abdominal Conditions. Disorders of the gastro-intestinal tract associated with neuro-muscular dysfunction, constipation, visceroptosis. Pre-operative breathing exercises and post-operative treatment of abdominal operations.

9. Diseases of the Nervous System. Hemiplegia. Paraplegia. Infantile Cerebral Palsy. Disseminated Sclerosis. Paralysis Agitans. Encephalitis Lethargica (after effects). Tabes Dorsalis. Acute Anterior Poliomyelitis. Progressive Muscular Atrophy. Amyotrophic Lateral Sclerosis. Syringomyelia. Neuritis. Neuralgia. Peripheral Nerve Injuries. Peripheral Neuritis. Herpes Zoster. Neurasthenia. Hysterical Manifestations. Tics. Occupational Neuroses. Insomnia. Chorea.

10. Constitutional Diseases. Vitamin Deficiency Diseases, with special reference to Rickets. Obesity. Diabetes. Non-articular Rheumatism (fibrositis, panniculitis, etc.).

11. Gynaecological, Obstetrical and Urogenital Conditions. Incontinence of Urine. Muscular weakness of the pelvic floor (puerperal and post-operative). Pelvic infections.

12. Localised Infective Processes. Acute and Chronic.

13. Tubercular Conditions, with particular reference to surgical conditions.

14. Skin Conditions. Infective conditions—Pyogenic conditions (boils, carbuncles, etc.); Erysipelas; Impetigo. Tubercular conditions—Lupus; Tuberculides; Scrofuloderma; Bazin's Disease. Metabolic conditions—Dermatitis; Eczema (acute and chronic); Psoriasis; Acne; Alopecia. Scars and skin grafts.

15. Special Organs. Conditions of the eye and ear commonly referred for treatment.

16. General Surgical Conditions. Pre-operative and post-operative treatments.

FINAL EXAMINATION

The Final Examination will be a practical examination of 1½ to 2 hours' duration on any form of physiotherapy included in the syllabus.

EXAMINATION IN HYDROTHERAPY

QUALIFICATIONS FOR ENTRY

(*a*) Registered Membership of the Chartered Society of Physiotherapy. This registration must be affected before the training in Hydrotherapy is begun.

(*b*) Proof of training in accordance with the requirements laid down in the syllabus, taken under an approved Teacher in the subject, and at a Centre recognized by the Chartered Society for the purpose of such training.

SCOPE OF TRAINING

Duration of the Course: Three months (12 weeks). A minimum of 324 hours required for theory and practice, to be carried out as follows:

Lectures and Demonstrations: 24 hours. Not less than nine of the lectures to be given by a medical practitioner.

Practical Work: Not less than 300 hours during the twelve weeks of the course. This work must be carried out on patients and be under the general supervision of the Instructors responsible for the training. It is pointed out how essential it is that students should have adequate personal experience of the various forms of treatment they are themselves learning to carry out.

SCOPE OF EXAMINATION

(*a*) Written examination (one paper) in Hydrotherapy with Applied Physiology (3 hours).

(*b*) Fifteen minutes' Oral and thirty minutes' Practical examination in Theory and Practice of the above, the use of apparatus, and the treatment of patients.

SYLLABUS

1. History of Hydrotherapy.
2. Elementary Physics and Chemistry and Physiological Principles of Hydrotherapy.
3. Bath reactions.
4. Applications of Heat and Cold.
5. Immersion Baths. (Full, Plain and Medicated.)
6. Peat, Mud and Paraffin Wax Baths. Hot Air and Vapour Baths.
7. Douches, Sprays and Partial Baths.
8. Packs.
9. Principles of Spa Treatment.
10. The application of Hydrotherapy to the treatment of those diseases, deformities and injuries enumerated in the Syllabus for the Examination in Physiotherapy. Precautions, dangers, and contra-indications.
11. Observation of symptoms—Fatigue; Faintness and Exhaustion; Inadequate feeding. Meals in relation to times of treatment.
12. Adequate supervision during rest and cooling.
13. Apparatus; construction of Baths; the use of thermometers and thermostats.
14. Temperature of rooms; methods of ventilating; avoidance of draughts and chills.
15. Hydrotherapy Department:
    Management;
    Cleaning and disinfection;
    Chlorination of water;
    Prevention of Tinea Pedis.

Note.—It is desirable that students should be familiar with all types of apparatus and baths.

Printed in England
by
The Campfield Press,
St. Albans.

(2) (5,000)
11.12.51.

Appendix 3b.

ORTHOPTICS

ISSUED BY
THE BRITISH ORTHOPTIC SOCIETY
MAY, 1951

THE DEFINITION AND WORK OF AN ORTHOPTIST:

An orthoptist holding the Diploma of the British Orthoptic Board is a registered medical auxiliary, working under the direction of an ophthalmic surgeon or a recognised ophthalmic medical practitioner.

The treatment of squint and other anomalies of binocular vision is undertaken by means of exercises which are designed to restore or stabilise binocular single vision.

Orthoptic treatment is basically a process of mental training, in which the higher centres of the brain concerned with visual sensation and with the control of eye movement and focussing are educated to function in a co-ordinated and efficient manner. The treatment is not primarily a method of curing the actual deviation of the eyes, although in many cases it may do so. It is essentially a means of stimulating and restoring normal binocular functions. Certain types of squint may be cured by glasses and exercises, others may require operation, and in these cases the functional result may be more satisfactory if orthoptic treatment is combined with surgery.

Apart from manifest squint, orthoptic exercises are of the utmost value in those cases of latent squint in which a conscious effort is required to overcome a tendency for the eyes to deviate.

It is becoming more widely accepted that, without examination by orthoptic methods, surgical treatment cannot be adequately planned. A knowledge of the precise angles of deviation and their variation in the different directions of gaze and information concerning the state of the binocular functions is extremely helpful to the ophthalmic surgeon.

Of all medical auxiliaries, none works in closer co-operation with the medical officer in charge of the case than the orthoptist. In deciding the correct treatment, the ophthalmic surgeon invariably discusses the matter with the orthoptist, in the light of the clinical findings. The orthoptist also performs a most useful function as a liaison between patient, parent and ophthalmologist. An orthoptic department is a necessity in any large ophthalmic clinic.

QUALIFICATIONS REQUIRED FROM PROSPECTIVE ORTHOPTIC STUDENTS.

(1) **Educational Standards:**

The minimum requirement is a General Certificate of Education (or its equivalent). Candidates are required to have:

Passes at ordinary level in six subjects, or

Passes at ordinary level in four subjects and one at advanced level.

English language is essential and elementary mathematics (with algebra and geometry) is desirable.

It is recommended that the curriculum should be as wide as possible.

A prospective student must be at least seventeen years of age before commencing training.

THE DEFINITION AND WORK OF AN ORTHOPTIST:

An orthoptist holding the Diploma of the British Orthoptic Board is a registered medical auxiliary, working under the direction of an ophthalmic surgeon or a recognised ophthalmic medical practitioner.

The treatment of squint and other anomalies of binocular vision is undertaken by means of exercises which are designed to restore or stabilise binocular single vision.

Orthoptic treatment is basically a process of mental training, in which the higher centres of the brain concerned with visual sensation and with the control of eye movement and focussing are educated to function in a co-ordinated and efficient manner. The treatment is not primarily a method of curing the actual deviation of the eyes, although in many cases it may do so. It is essentially a means of stimulating and restoring normal binocular functions. Certain types of squint may be cured by glasses and exercises, others may require operation, and in these cases the functional result may be more satisfactory if orthoptic treatment is combined with surgery.

Apart from manifest squint, orthoptic exercises are of the utmost value in those cases of latent squint in which a conscious effort is required to overcome a tendency for the eyes to deviate.

It is becoming more widely accepted that, without examination by orthoptic methods, surgical treatment cannot be adequately planned. A knowledge of the precise angles of deviation and their variation in the different directions of gaze and information concerning the state of the binocular functions is extremely helpful to the ophthalmic surgeon.

Of all medical auxiliaries, none works in closer co-operation with the medical officer in charge of the case than the orthoptist. In deciding the correct treatment, the ophthalmic surgeon invariably discusses the matter with the orthoptist, in the light of the clinical findings. The orthoptist also performs a most useful function as a liaison between patient, parent and ophthalmologist. An orthoptic department is a necessity in any large ophthalmic clinic.

QUALIFICATIONS REQUIRED FROM PROSPECTIVE ORTHOPTIC STUDENTS:

Educational Standards:

The minimum requirement is a General Certificate of Education (or its equivalent). ses, at ordinary level, must be obtained in four subjects—English is essential and it is rable that mathematics or one subject from the general science group (biology, chemistry hysics) should be included. It is recommended that the curriculum should be as wide ossible.

Age:

A prospective student must be at least seventeen years of age before commencing training.

(3) Medical Standards :

A certificate of general medical fitness is required by the majority of training schools. In addition the candidate must also undergo a special eye examination and be passed as ocularly fit for the duties of an orthoptist. This examination must be carried out by an ophthalmologist on the staff of the hospital where the candidate proposes to train. (The appropriate form appears at Appendix 00).

(4) Personal Attributes :

An orthoptist must be ingenious, patient and able to inspire both interest and confidence. The best orthoptist is one who has a facility for teaching and an aptitude for dealing with people, particularly children. Although the profession is not exclusively for women, they are considered to be temperamentally more suited for the work they are required to undertake.

TRAINING :

(1) Duration :

The course of training lasts for two years. During that time students are required to attend the school daily during working hours. Six weeks' leave is permitted each year, in addition to public holidays.

(2) Cost :

The fees range from £120 to £150 for the two years' course. In addition there are the ordinary living expenses and the cost of books and other incidentals. Students are non-resident and are required to arrange their own accommodation.

(3) Syllabus :

The syllabus covers general anatomy and physiology (to the standard required for a state registered nurse's certificate) ; special anatomy and physiology of the eye and orbit ; elementary optics and the principles and practice of orthoptics. (A detailed syllabus is given at Appendix 00).

Lectures usually take place during the day, but students are required to undertake home study and attend occasional evening lectures. Lectures are given by members of the medical staff, the sister tutor, almoner and university lecturers, in addition to qualified orthoptic teachers.

Students work in the orthoptic clinic of their school throughout the training period, thus gaining clinical experience from demonstrations and practice.

(4) Schools :

There are, at present, fifteen recognised training schools in the British Isles. They are situated in ophthalmic hospitals or hospitals having ophthalmic departments. (A full list of training schools is given at Appendix 00).

(5) **Examinations :**

There are three examinations for the Diploma of the British Orthoptic Board :

i. The common entrance examination.
ii. The first year examination.
iii. Ths final examination.

The common entrance examination is held at the end of the first three months. The syllabus consists of elementary general anatomy and physiology. In addition, candidates are required to write an essay on one of a list of given general subjects. Failure to pass this examination will normally terminate a student's training.

The first year examination takes place after twelve months' training. This examination is carried out by Ophthalmic Surgeons, and comprises special anatomy and physiology of the visual apparatus, optics and elementary orthoptics.

The final examination is taken at the end of the second year and is carried out by Ophthalmic Surgeons and Orthoptists. The subjects are the theory and practise of orthoptic treatment.

HIGHER QUALIFICATION :

After three years' clinical experience an orthoptist is entitled to sit an examination to qualify as an assistant teacher, and can assume full responsibility for a training school after a further two years' experience.

(6) **Governing Body :**

The Orthoptic Board, appointed by the Faculty of Ophthalmologists, is responsible for the training and qualification of orthoptists. The Board consists of ophthalmic surgeons, representing each of the training schools and those hospital regions which contain no orthoptic schools, together with five senior orthoptists. All matters of policy recommended by the Board are forwarded to the Council of the Faculty of Ophthalmologists for ratification.

CAREER :

Orthoptists are recognised by the Ministry of Health and employed in the National Health Service. The majority of posts are in hospitals and school clinics and are non-residential. In addition there is some scope for private practice. There is also opportunity for employment overseas.

Salaries and conditions of service are laid down by the Ministry of Health in P.T.A. Circulars Nos. 17 and 22. Salaries range from £380 per annum for newly qualified orthoptists working as assistants to a maximum of £620 for those in charge of large departments. Appropriately higher salaries are paid to teachers. Orthoptists working on a sessional basis are paid 19s. per 3 hour session as assistants, and 21s. when single handed.

inations :

examination for the Diploma of the British Orthoptic Board is in two parts. t takes place at the end of the first year of training and comprises elementary anatomy and physiology ; special anatomy and physiology of the visual apparatus ; nd elementary orthoptics. This examination is carried out by ophthalmic surgeons. al examination is taken at the end of the second year, the subjects being the theory actice of orthoptic treatment. The examiners consist of ophthalmic surgeons and tists.

examinations are at present held bi-annually. Students failing in either part can examined in six months.

Successful candidates are entitled to use the designation D.B.O. (Diploma of the ish Orthoptic Board). They must abide by the ethical rules laid down by the Orthoptic rd and must become registered medical auxiliaries. No candidate is permitted to sit final examination until she is nineteen years of age.

HIGHER QUALIFICATION :

After three years' clinical experience an orthoptist is entitled to sit an examination to qualify as an assistant teacher, and can assume full responsibility for a training school after a further two years' experience.

(6) Governing Body :

The Orthoptic Board, appointed by the Faculty of Ophthalmologists, is responsible for the training and qualification of orthoptists. The Board consists of ophthalmic surgeons, representing each of the training schools and those hospital regions which contain no orthoptic schools, together with five senior orthoptists. All matters of policy recommended by the Board are forwarded to the Council of the Faculty of Ophthalmologists for ratification.

CAREER :

Orthoptists are recognised by the Ministry of Health and employed in the National Health Service. The majority of posts are in hospitals and school clinics and are non-residential. In addition there is some scope for private practice. There is also opportunity for employment overseas.

A salary scale and conditions of service were agreed by the Joint Negotiating Committee in 1947. These still hold good pending modifications by the Professional and Technical Staffs " A " Council of the Whitley Councils for the Health Services (Great Britain), on which orthoptists holding the diploma of the British Orthoptic Board are represented. Salaries range from £320 per annum for newly qualified orthoptists working as assistants, to a maximum of £560 for those in charge of large departments. Appropriately higher salaries

February, 1954.

are paid to teachers. Orthoptists working on a sessional basis earn 15s. per 3 hour session

The working hours are 39 per week with three weeks' annual leave for assistants and four weeks for all other grades with the exception of teachers, who are given five weeks, in addition to statutory holidays.

The employing authority is responsible for the provision and laundering of uniform coats or payment in lieu.

BRITISH ORTHOPTIC SOCIETY:

The British Orthoptic Society consists solely of members holding the Diploma of the British Orthoptic Board. It is the recognised body through which orthoptic appointments are advertised and a monthly register of vacancies is sent to all members. At present only orthoptists holding the qualification of the Orthoptic Board are employed by hospitals and other public authorities.

The Society is responsible for making recommendations concerning the welfare of the profession to the British Orthoptic Board. It holds regular business and clinical meetings and publishes annually the BRITISH ORTHOPTIC JOURNAL, which contains articles by orthoptists and members of the medical profession.

In addition to full membership of the Society, the annual subscription of £4 4s. covers the fee payable each year to the Board of Registration of Medical Auxiliaries, the annual subscription for the journal, the levy to the Whitley Council and insurance against claims made by patients which might not be covered by the employing authority.

Additional copies of this pamphlet (price 6d., post free), may be obtained from the Registrar:—Miss W. Gregar, "Silverwood," Old Avenue, Weybridge, SURREY

MISS W. GREGAR
6, BRIGHTHAMPTON
OATLANDS AVENUE
WEYBRIDGE

are paid to teachers. Orthoptists working on a sessional basis earn 15s. per 3 hour session in the first year after qualification. This is increased to 21s. in the second year and 30s. after five years' experience.

It is recommended that the working hours are 39 per week, with four weeks' leave a year, in addition to statutory holidays. Employing authorities are responsible for the provision of uniform coats, or payment in lieu.

BRITISH ORTHOPTIC SOCIETY:

The British Orthoptic Society consists solely of members holding the Diploma of the British Orthoptic Board. It is the recognised body through which orthoptic appointments are advertised and a monthly register of vacancies is sent to all members. At present only orthoptists holding the qualification of the Orthoptic Board are employed by hospitals and other public authorities.

The Society is responsible for making recommendations concerning the welfare of the profession to the British Orthoptic Board. It holds regular business and clinical meetings and publishes annually the BRITISH ORTHOPTIC JOURNAL, which contains articles by orthoptists and members of the medical profession.

In addition to full membership of the Society, the annual subscription of £4 4s. covers the fee payable each year to the Board of Registration of Medical Auxiliaries, the annual subscription for the journal, the levy to the Whitley Council and insurance against claims made by patients which might not be covered by the employing authority.

Additional copies of this pamphlet (price 6d., post free), may be obtained from the Registrar :—Miss W. Gregar, "Silverwood," Old Avenue, Weybridge, SURREY

Miss W. Gregar
6, BRIGHTHAMPTON
OATLANDS AVENUE
WEYBRIDGE

OPHTHALMIC REPORT FOR THOSE APPLYING TO UNDERGO TRAINING AS ORTHOPTISTS

SCHOOL OF ORTHOPTICS.....

CANDIDATE'S NAME (in full).....

ADDRESS.....

DATE OF BIRTH.....NATIONALITY.....

PREVIOUS EYE TROUBLE (if any).....

LAST PRESCRIPTION FOR GLASSES (if any) R..... L.....

1. VISUAL ACUITY: R. 6/..... with ..... 6/..... and J.....

L. 6/..... with ..... 6/..... and J.....

2. MUSCLE BALANCE TESTS, etc. (with correction) :—

	MADDOX ROD		MADDOX WING
	FIXING c R.E.	FIXING c L.E.	
Hor.	.....	.....	.....
Vert.	.....	.....	.....

COVER TEST.....

CONVERGENCE.....cms.

3. OCULAR MOVEMENTS.....

4. BINOCULAR VISION.....

5. VISUAL FIELDS .....

6. SIGNS OF EYE DISEASE (or other anomaly).....

I consider that this applicant is ocularly $\frac{\text{fit}}{\text{unfit}}$ to train as an orthoptist.

Date..... Ophthalmic Surgeon.....

Proposed date of commencement of training.....

GENERAL REMARKS.....

I have verified this Candidate's School Leaving Certificate (or its equivalent) and Birth Certificate.

....

Orthoptist in Charge — Ophthalmic Surgeon in Charge of Training School

Date.....

P.T.O.

The eye standard required is :—

1. Maddox Rod Test at 6 metres (with correction, but without prisms) : Not more than 6 prism dioptres Exophoria or 5-7 prism dioptres Esophoria and not more than 1 prism dioptre of hyperphoria.

   Maddox Wing Test (with glasses, but without prisms) : Not more than 8 prism dioptres of Exophoria or Esophoria and not more than 1 prism dioptre of hyperphoria.

   Convergence to 6 cms. (well maintained).

   Cover Test : No latent deviation, or slight latent deviation with rapid recovery.

2. Visual Acuity 6/9 each eye with glasses. Normal stereoscopic vision. Refractive error not to exceed + or — 7 dioptres in any meridian. (A Candidate whose refractive error is beyond the statutory limits may be accepted at the discretion of the Ophthalmic Surgeon).

3. No eye disease likely to cause disablement.

4. Visual fields normal.

DIPLOMA OF THE BRITISH ORTHOPTIC BOARD

General Syllabus

PART I

General Physiology and Anatomy

The structure and functions of the tissues and organs of the human body, with special reference to the central nervous system.

The anatomy of the human skeleton, organs and tissues, with special reference to the skull.

(The standard is approximately that required in the examination to qualify as a state registered nurse).

Special Physiology and Anatomy

The detailed structure and function of the contents of the orbit and its adnexae.

The structure and function of the various parts of the brain, with special reference to the cerebral nerves I to VII and the cervical sympathetic system.

Visual acuity ; visual fields ; light, form and colour sense and binocular vision.

Optics

Principles of light waves. Lenses, prisms and mirrors ; their optical properties and uses.

The eye as an optical instrument.

Errors of refraction ; their methods of diagnosis and treatment.

(The first examination is based on the above syllabus)

General Ophthalmology

The common diseases of the eyeball and its adnexae. (To the standard required for the special certificate in ophthalmic nursing).

Ocular palsies ; their etiology, diagnosis and treatment.

The operative and post operative treatment of all types of strabismus.

Errors of refraction ; their investigation and treatment, especially in relation to strabismus.

Anomalies of accommodation ; their causes and treatment.

Principles of elementary psychology.

Orthoptics

The etiology, diagnosis and treatment of all types of strabismus and heterophoria.

The investigation and diagnosis of anomalies of binocular vision ; the treatment indicated to restore normal binocular functions.

Indication for and principles of operation in cases of strabismus and heterophoria.

The use and care of orthoptic instruments ; the use of the Hess screen, Bjerrum screen and perimeter.

Books recommended

Worth and Chavasse's Squint	T. Keith Lyle
Practical Orthoptics in the Treatment of Squint ...	T. Keith Lyle and S. Jackson
Anatomy of the Human Eye and Orbit	E. Wolff
Practice of Refraction	Duke Elder
Diseases of Children's Eyes	J. H. Doggart
Aids to Ophthalmology	P. McG. Moffatt
The Human Eye in Anatomical Transparencies ...	G. McHugh and Others

ORTHOPTIC TRAINING SCHOOLS

London

Moorfields Branch, Moorfields, Westminster and Central Eye Hospital, City Road, London, E.C.1.

Westminster Branch, Moorfields, Westminster and Central Eye Hospital, High Holborn, London, W.C.1.

Provinces

Birmingham and Midland Eye Hospital, Church Street, Birmingham.

Children's Hospital, Ladywood Road, Birmingham, 16.

Chester Royal Infirmary, Chester.

Coventry and Warwickshire Hospital, Coventry.

General Infirmary, Leeds.

Manchester Royal Eye Hospital, Oxford Road, Manchester.

Oxford Eye Hospital, Walton Street, Oxford.

Royal Berkshire Hospital, Reading.

Durham County and Sunderland Eye Infirmary, Alexandra Road, Sunderland.

Wolverhampton and Midland Counties Eye Infirmary, Compton Road, Wolverhampton.

Cheltenham and General Children's Eye Hospital, Sandford Road, Cheltenham.

Royal Infirmary, Sheffield, 6.

Scotland

Glasgow Eye Infirmary, Berkeley Street, Glasgow.

W. & S. Ltd., S'bury.

Appendix 3b.

ASSOCIATION OF OCCUPATIONAL THERAPISTS

UNEDITED DRAFT

- of -

REVISED SYLLABUS OF TRAINING

February, 1954.

CLINICAL EXPERIENCE

Clinical Experience Record Form

Periods of Clinical Practice should be recorded on the requisite form. The Occupational Therapist in charge of each hospital to which the student goes should sign the form as evidence of the number of hours spent and the variety of practice obtained.

This form will show the progress of the student in clinical practice and should be made available to the Examiners at the time of the Practical Examination.

Clinical Experience Report Form

The Occupational Therapist in charge should also make a more detailed report on each student in training on the appropriate form. This report must be returned to the Training School from which the student comes - or in the case of an external student, to the Association - at the end of a student's period of hospital practice. It should be available to the Examiners at the Practical Examination, on request, in its original form.

RESPONSIBILITY FOR CLINICAL EXPERIENCE

(a) Training Schools

It is the responsibility of the Training Schools to provide

(1) Lectures in subjects grouped under headings A and B of the Syllabus

(2) Suitable introductory lectures on application

(3) To establish some level of regular and adequate inspection of hospitals where students are sent for Clinical Experience.

(b) Occupational Therapists in charge of Departments where students gain Clinical Experience

It is the responsibility of the Occupational Therapist in charge of a Department seeking to take students to give a reasonable guarantee on the appropriate form that she can

(i) provide facilities for practical experience and for teaching
(ii) provide teaching to her students on certain sections of the Syllabus.

It is recommended that hospitals where students are accepted for training be asked to allow some portion of each day of the O.T.'s time - say one hour - to be devoted entirely to her group of students.
Teaching given during this period should be devoted to Applied Subjects.

It is the Joint Responsibility of Training Schools and O.T.'s in charge of Departments where students practise to see that the students cover the requirements of Paper C of the Applied Syllabus.

HOURS OF CLINICAL EXPERIENCE REQUIRED

24 weeks - 30 hours a week in Hospitals specialising in the treatment of Mental and Nervous Illness

24 weeks - 30 hours a week in Hospitals specialising in the treatment of Physical Disabilities.

OR

A. 18 weeks - 30 hours a week in Hospitals specialising in the treatment of Mental and Nervous Illness

B. 18 weeks - 30 hours a week in Hospitals specialising in the treatment of Physical Disabilities

C. 12 weeks - 30 hours a week further Clinical Experience.

OR

A. 16 weeks - 30 hours a week in Hospitals specialising in the treatment of Mental and Nervous Illness

B. 16 weeks - 30 hours a week in Hospitals specialising in the treatment of Physical Disabilities

C. 16 weeks - 30 hours a week further Clinical Experience.

Notes on Clinical Experience Requirements:-

A. It should be noted that student experience during periods of training must include treatment of patients suffering from neuroses and psychoses in both acute and chronic states and also experience obtained in a State Mental hospital.

B. must include treatment of patients suffering from Physical injury or disease in both acute and chronic phases and also experience obtained in a General Hospital.

C. may be taken as an additional period supplementing A. and B.
(i) by the addition of further experience in either field;
OR (ii) by the addition of experience in another field not specifically covered above.

It is advised that where possible hospital practice should be taken in a minimum of three hospitals

Candidates of 25 and over at the date of the Final Examination must satisfy the Association that they have had practical experience with patients for a minimum of:-

20 weeks - 30 hours a week in Hospitals specialising in the treatment of Mental and Nervous Illness

20 weeks - 30 hours a week in Hospitals specialising in the treatment of Physical Disabilities

OR

A. 15 weeks - 30 hours a week in a hospital specialising in the treatment of Mental and Nervous Illness

B. 15 weeks - 30 hours a week in a hospital specialising in the treatment of Physical Disabilities

C. 10 weeks - 30 hours a week further Clinical Experience.

OR

A. Total of 400 hours in a hospital specialising in the treatment of Mental and Nervous Illness

B. Total of 400 hours in a hospital specialising in the treatment of Physical Disabilities

C. Total of 400 hours in further Clinical Experience.

Normal psychological practice should be taken in mental hospitals or similar institutions, but it is permissible for candidates to take not more than one-third of their psychological practice in a general hospital where the treatment is prescribed for not fewer than ten patients by a psychiatrist.

Up to a month's credit for hospital practice will be granted to a student who submits a plan for the study of a special aspect of conditions in which patients live and work.

MINISTRY OF HEALTH TRAINING COURSE

IN REMEDIAL GYMNASTICS AND

RECREATIONAL THERAPY

REVISED SYLLABUS OF TRAINING: APRIL, 1950

Appendix 3b.

PART I

(a) ANATOMY

OSTEOLOGY

(i) In detail: General structure and form (including important ligamentous and muscular attachments) of vertebrae, pelvis, sternum, ribs, femur, patella, tibia, fibula, os calcis, astragalus, scapula, clavicle, humerus, radius, ulna.

(ii) Outline of: (a) Tarsus (with exception of bones previously mentioned), metatarsals and phalanges, (b) carpus, phalanges.

(iii) Brief outline of: Skull (names and general positions of bones articulated only).

ARTHROLOGY

General classification of joints. Movements and their limitations. Chief relations. Gross structure.

In detail: Joints of the vertebral column, atlanto-occipital joint, costo-transverse joints, sterno-costal joints, interchondral joints, costo-chondral joints, sacro-iliac joint, symphysis pubis, hip joint, knee joint, tibio-fibular joints, ankle joint, sub-astragaloid joint (posterior articulation between astragalus and os calcis), mid-tarsal joint (articulations between astragalus and cuboid), metatarso-phalangeal joints, interphalangeal joints, sterno-clavicular joint, acromio-clavicular joint, gleno-humeral joint, elbow joint, radio-ulnar joints, wrist joint, carpo-metacarpal joint of the thumb, metacarpo-phalangeal joints, interphalangeal joints.

Outline of: Mandibular joint, sacro-coccygeal joint, tarsal and carpal joints (with exception of those mentioned previously).

MYOLOGY

General principles. Tendons, aponeuroses and fasciae.

Position, origin, insertion, nerve supply and action of the following skeletal muscles: muscles of the upper and lower limbs, with the exception of the intrinsic muscles of the hand and foot (see section below), muscles of the trunk (outline only of muscles deep to second layer of back muscles), respiratory muscles.

Outline of: Muscles of the pelvic floor, intrinsic muscles of the hand and foot, muscles of the face and mastication, deep muscles of the back. Students should study these muscle groups from the point of view of function.

NEUROLOGY

Brain: - Brief outline of shape, structure and position.

Spinal cord: - Brief outline of shape, structure and chief nerve tracts. Cauda equina.

Spinal nerves: - Brief outline of roots, divisions and plexuses, cervical, brachial, lumbar and sacral. Brief outline of course, relations and distribution of chief nerves.

Cranial nerves: - Names and brief outline of function.

Sympathetic system: - Brief outline of general position and structure.

ANGIOLOGY

Heart: - Position and structure.

Blood Vessels: - Structure of arteries and veins. Brief outline of position and distribution of main arteries and veins.

Lymphatics: - Brief outline of general position of main lymphatic trunks. Direction of drainage. Position of chief glands.

RESPIRATORY SYSTEM

Outline of structure, general relations and position of air passages, lungs, and pleura. The bronchial tree should be studied in some detail.

ABDOMINAL AND PELVIC VISCERA

Brief outline of general position and structure of:- alimentary canal, liver, pancreas, spleen, kidneys, ureters, bladder, urethra and internal organs of generation.

Note:- Special attention should be paid to the linking of the study of anatomy with the recognition of the structures in the living body by inspection and palpitation.

Surface anatomy should be a special study.

Demonstrations of dissected parts will be given by medical practitioners.

(b) PHYSIOLOGY

Brief Outline of:- the basic principles of histology; cells, tissues, organs and systems of the body.

MUSCULAR SYSTEM

In detail: Striated, unstriated and cardiac muscle; physiological properties of muscle; energy and heat production; effects of muscular exercise; fatigue; training; posture.

NERVOUS SYSTEM

Outline of: - functions of the brain, spinal cord, and sympathetic system; reflex action; nervous correlation of various parts of the body; degeneration and regeneration of nerve.

VASCULAR SYSTEM

In detail: Composition, properties, including coagulation and function of blood; mode of action of the heart; circulation of the blood, including nervous control; maintenance of blood pressure; the pulse; lymphatic system; general functions; nervous control of circulation; changes in circulation due to exercise.

RESPIRATORY SYSTEM

In detail: mechanics of respiration; external and internal respiration; regulation of respiration; changes in exercise; dyspnea.

FOODS

Brief outline: proteins, carbohydrates, fats, salts, water and vitamins; important factors in diets.

DIGESTION

Brief outline: process of digestion in the mouth, stomach and intestines; movements and control of the alimentary canal; absorption in the alimentary canal.

METABOLISM

Brief outline: anabolism and katabolism.

TEMPERATURE

In detail: Maintenance and regulation.

EXCRETION

Outline of: waste products of the body; process of elimination by kidneys, skin and lungs.

DUCTLESS AND OTHER GLANDS

Brief outline of functions.

REPRODUCTION SYSTEM

Brief outline of system in male and female.

(o) BASIC PATHOLOGY

In detail: Inflammation; reaction to injury; resolution; repair; hypertrophy; atrophy; degeneration.

Outline of: Infection; bacteriology.

(a) CLINICAL CONDITIONS WHICH MAY BE TREATED BY EXERCISE THERAPY

An elementary knowledge of these conditons is expected of the remedial gymnast, in order that he may understand and appreciate the rationale of treatment.

The lectures will be given by medical practitioners, and will be closely linked, whenever possible, with clinical demonstrations and visits of observation to hospitals and rehabilitation centres.

BONY INJURIES *

Principles of fracture treatment; repair of fractures; delayed union; malunion and non-union; abnormalities of union; reduction and fixation of fractures; compound fractures; traumatic ossification; avascular bone necrosis.

Bony injuries of the trunk: Fractures of the transverse and spinous processes; fractures and fracture-dislocations of the dorso-lumbar vertebrae; fractures and fracture dislocations of the cervical vertebrae; vertebral fractures with paraplegia; fractures and fracture-dislocations of the pelvic ring; fractures of the ribs.

Bony injuries of the upper limb: Fracture of the clavicle; fracture of the scapula; fracture of the greater tuberosity of the humerus; fracture of the neck of the humerus; fracture-dislocation of the shoulder joint; fracture of the shaft of the humerus; fracture of the head of the radius; fracture of the olecranon; supracondylar fracture; epiphyseal injuries near the elbow joint; fracture-dislocation of the elbow joint; fracture of the shafts of the radius and ulna; Colles' fracture; displacement of the lower radial epiphysis; fracture of the carpal scaphoid; fracture of the metacarpals and phalanges.

Bony injuries of the lower limb: avulsion of the epiphyses near the hip joint; fracture-dislocation of the hip joint; fractures of the neck of the femur, including intertrochanteric and pertrochanteric fractures; fracture of the shaft of the femur; supracondylar fracture; fracture of the patella; fracture of the tibial tuberosity; fracture of the tibia and fibula; fracture and fracture-dislocation of the ankle joint; fracture of the os calcis, talus; fracture of the metatarsals and phalanges.

JOINT AND SOFT TISSUE INJURIES

Injuries to joints, muscles and tendons; vascular injuries; nerve injuries; separation of the epiphyses; injuries to bursae and synovial sheaths.

Joint and soft tissue injuries of the trunk: strains of the sacro-iliac, lumbo-sacral and interarticular joints of the spine; intervertebral disc injuries; myofascial injuries.

Joint and soft tissue injuries of the upper limb: dislocation of the acromio-clavicular joint; dislocation of the sterno-clavicular joint; dislocation and recurrent dislocation of the gleno-humeral joint; dislocation of the elbow joint; sprain of the wrist joint; metacarpo-phalangeal sprains; injuries to the supraspinatus tendon; rupture of the biceps tendon; tenosynovitis and tenovaginitis stenosans of the tendons of the thumb and fingers; stiff and contracted fingers.

---

* Lecturers will realise that the list of bony injuries given here is a fairly comprehensive one. It is hoped that they will lay particular stress on certain of the more common conditions, and confine themselves to a basic approach in dealing with the remaining conditions.

Joint and soft tissue injuries of the lower limb: dislocation of the hip joint; dislocation of the knee joint; dislocation of the patella; sprain of the ankle joint; sprains of the subastragaloid and tarsal joints; traumatic synovitis and haemarthrosis of the knee joint; injuries of the semilunar cartilages; prepatellar bursitis; rupture of the quadriceps apparatus.

General soft tissue injuries: Wounds, scars, burns and skin grafts.

INJURIES TO THE HEAD

Types of injuries; principles of treatment.

AMPUTATIONS

Site of election; types, e.g. flap, guillotine, etc., principles of stump treatment and re-education; types of artificial limbs; limb fitting.

INFECTIVE CONDITIONS

Brief outline: Boils; carbuncles; abscesses; ulcers.

In detail: Cellulitis; pulp and tendon sheath infections.

DISEASES OF BONES AND JOINTS

Acute and chronic infective arthritis; rheumatoid arthritis; osteo-arthritis; spondylitis; osteo-chondritis; Padget's disease; tuberculous bones and joints; osteomyelitis; osteoporosis; Perthes' disease of the hip.

DEFORMITIES

Kyphosis; kypho-lordosis; scoliosis; coxa vara; lordosis; congenital dislocation of the hip joint; genu valgum; genu varum; pes planus; pes cavus; talipes; hallux valgus; hallux rigidus; hammer toes; disabilities associated with faults of posture; painful conditions arising from deformities, e.g. metatarsalgia.

DISEASES OF MUSCLE AND FASCIA

Muscular dystrophies (brief outline); myositis ossificans; Volkmann's ischaemic contracture; Dupuytren's contracture; infective and traumatic fascitis.

DISEASES OF THE CIRCULATORY SYSTEM

Cardiac disorders (brief outline); arteriosclerosis; aneurysm; Raynaud's disease; chilblains; endarteritis; phlebitis; thrombosis; varicose veins; embolism; obstruction of the lymphatics.

DISEASES OF THE RESPIRATORY SYSTEM

Chronic tonsillitis and adenoiditis; sinusitis; bronchitis; bronchiectasis; asthma; emphysema; hypostatic congestion and pneumonia; phthisis; pleurisy; empyema; lung abscess. Basic principles of the pre- and post-operative treatment of conditions such as lobectomy, pneumonectomy and thoracoplasty. General principles of the rehabilitation of chest conditions. Closed chest injuries.

DISEASES OF THE NERVOUS SYSTEM

Hemiplegia; paraplegia; cerebral paralysis of infancy; anterior poliomyelitis; progressive muscular atrophy; tabes dorsalis; paralysis agitans; encephalitis lethargica; disseminated sclerosis; neuritis; neuralgia; cramp; hysteria; epilepsy; tics; peripheral nerve lesions; occupational neuroses.

ABDOMINAL CONDITIONS

Constipation; nephritis; visceroptosis. Pre- and post-operative treatment of certain abdominal operations, such as appendicectomy, cholecystectomy, gastrectomy, herniotomy, sympathectomy. Types of abdominal incisions.

CONSTITUTIONAL DISEASES

Non-articular rheumatism, e.g. fibrositis; rickets; obesity; diabetes; chorea.

(e) METHODS OF FIXATION AND SUPPORT

SIMPLE NURSING DUTIES

Fixation and support: types of splints and plaster casts used for the commoner bone and joint injuries; types of bandages, strappings and slings in common use. Special attention will be paid to the treatment of recent injuries.

Simple nursing duties: temperature; pulse; respiration; care of the skin; sterile dressings and dressing techniques; simple applications. Bed making.

(f) PSYCHOLOGY

Definition; contemporary schools of psychology; application with special reference to the work of the remedial gymnast; conditioned reflexes; habit formation; feeling and emotion; unconscious motives and behaviours; mental defence mechanisms; development of concepts; achievement of skills; suggestion; psychology of growth and mental devlopment.

(g) MEDICAL REHABILITATION

Definition; field of work and forms of therapy employed; therapeutic personnel; the almoner's contribution; types of medical rehabilitation service; organisation required for (a) general hospital, (b) special hospitals, and (c) residential rehabilitation centres; the rehabilitation workshop; the industrial rehabilitation centres; vocational training; re-settlement and the disablement resettlement officer.

PART II

Division of exercise therapy into (i) Specific exercises, (ii) General exercises, (iii) Games, and (iv) Individual activities, such as swimming, cycling, walking, gardening, timber and domestic work. General exercises and games are classified in this syllabus as Recreational Therapy.

Definition of Remedial Gymnastics and Recreational Therapy. History and development of exercise therapy.

(a) SPECIFIC EXERCISES

Classification of movement into (i) Active movements, and (ii) Passive movements.

Division of active movements into voluntary and involuntary movements. Subdivision of active (voluntary) movements into: (a) Assisted movements, (b) Resisted movements, and (c) Free movements. Subdivision of active (involuntary) movements into: (a) Associated movement, (b) Reflex movement, (c) Peristaltic movement, and (d) Cardiac movement.

Definition and uses of passive movements. Indications and contra-indications.

ACTIVE (VOLUNTARY) MOVEMENTS

Assisted movements: (a) Suspension movements, (b) Supported movements, (c) Assisted active movements, and (d) Auto-assisted active (tension) movements. Theoretical considerations, technical aspects and remedial use. Principles and constructional details of apparatus for assistance.

Resisted movements: Resistance by (a) Apparatus, i.e. weight-and-pulley circuit, springs, weights, (b) the Patient, and (c) the Gymnast. Analysis of the main types of resistance. Theoretical considerations, technical aspects and remedial use. Principles and constructional details of the apparatus for resistance.

Free Movements: Theoretical considerations, technical aspects and remedial use. Gymnastic apparatus for free movements.

General effects of active movements. Contra-indications of active movements.

ACTIVE (INVOLUNATRY) MOVEMENTS

Consideration of associated movement, reflex movement, peristaltic movements; remedial use.

PRINCIPLES OF SPECIFIC EXERCISES

Principle of rhythm; principle of progression. Appropriate starting positions.

Principle of rhythm: Importance of rhythmical exercise work; the effect of sustained contraction and rhythmical contraction on the circulatory and lymphatic systems of muscles affected by disuse or trauma.

Principle of progression: Progression in Power - (a) Methods of progressing suspension, supported and assisted active exercises, (b) methods of progressing free exercises, and (c) methods of progressing resisted exercises. Progression in co-ordination: (a) General methods of progression which may be applied to all parts of the body, and (b) methods of progression which are applicable to the lower limbs and the trunk.

Appropriate starting positions: (a) Types of starting positions to use when developing strength and mobility, and (b) types of starting positions to use when developing neuro-muscular co-ordination.

EXERCISE TABLES OR SCHEMES

Compilation of tables of specific exercises for various clinical conditions. General principles of table construction. Terminology. For conditions covered see Part 1 of Syllabus. The terminology employed is based on the Terminology of Swedish Educational Gymnastics, published by the Ling Physical Education Association.

Note. - In certain circumstances games with a specific and general effect may be included in the tables.

POSTURAL TRAINING AND RE-EDUCATION

Posture training: principles and methods employed. Re-education of movement: principles and methods employed. Technique of lifting and carrying heavy weights. Relaxation training: principles and methods employed.

(b) RECREATIONAL THERAPY

GENERAL EXERCISES

Three grades of general exercises, corresponding to the early, intermediate and late phases of recovery: (a) Sitting exercises, (b) Standing exercises (light), and (c) Standing exercises (moderately strong). General exercises in the hospital ward.

Compilation of tables of general exercises for various clinical conditions. General principles of table construction. Terminology. For conditions covered see Part 1 of Syllabus. The terminology employed is based on the Terminology of Swedish Educational Gymnastics.

Note. - It is recommended that the movements used for general exercises should be of the free type. Exercises with fixed gymnastic apparatus are not advocated for this work, but the use of simple apparatus, such as ash sticks, stools, chairs, etc., is recommended.

GAMES

Three grades of games, corresponding to the early, intermediate and late phases of recovery; (a) Sitting games, (b) Light games (walking instead of running for patients with lower limb disabilities, and "controlled" running for patients with other types of disabilities), and (c) Games (running allowed).

Types of games: (a) Light "everyday" games, e.g. bowls, darts billiards, croquet, etc., (b) Informal activities, e.g. Three against One; (c) Minor games, e.g. Team passing; (d) Relay games, e.g. Straddle relay; and (e) Major games, e.g. Free Basket Ball.

Compilation of games tables for various clinical conditions. General principles of table construction. For conditions covered see Part 1 of Syllabu

INDIVIDUAL ACTIVITIES

Group 1. Swimming, cycling and walking.

Group 2. Gardening: Light work - hoeing, raking, hedge clipping and pruning. Intermediate work - trowel digging, wheelbarrow transport, lawn mowing and rolling. Heavy work - scything and digging.

Group 3. Timber work: Heavy work - log sawing. Very heavy work - log splitting and timber transport.

Group 4. Domestic work - sweeping, dusting, kitchen duties. Intermediate work - scrubbing, window cleaning, bedmaking and home decorating. Heavy work - polishing, carpet beating and laundry work.

DIVERSIONAL THERAPY

Organisation of diversional games and entertainments in hospitals and rehabilitation centres. It is recommended that during the training course students should take part in the organisation of different forms of entertainment.

Note on practical training in remedial gymnastics and recreational therapy. - Special attention will be paid to (a) Teaching technique, (b) Class taking, and (c) Voice production. Exercises will be taught from the viewpoint of (a) individual remedial treatment, (b) individual group treatment, and (c) class treatment.

(c) BODY MECHANICS

Concentric, excentric and static muscle work. Remedial uses. Group action of muscles. Remedial use of synergic and fixator muscle work. Levers and leverage. Axes and planes. Force and gravity. The Parallelogram of forces.

Analysis of (a) the muscle action and joint movement of certain everyday actions, e.g. walking, running, jumping, pushing, pulling and lifting, etc., and (b) exercises employed in remedial work. Movements of the joints of the body and their ranges. Factors limiting joint movement.

Assessment of joint movements and muscular power. Types of goniometer and weight-and-pulley-apparatus. Record keeping.

(d) HOSPITAL ETIQUETTE

Professional approach. Co-operation with other members of the hospital staff. Ward etiquette.

Appendix 3 (c)

Personal qualities required of candidates applying for training in each profession

Occupational Therapy

"Those wishing to enter this profession should have a strong liking for and interest in people. They must also have the ability to arouse and maintain a patient's interest and confidence in the treatment suggested for him, and be tactful, patient and sympathetic when occasion demands ... it is also particularly necessary to have a well-balanced outlook and plenty of common sense."

"Good powers of observation are necessary, not only of how people live and the kinds of jobs they do, so that correct treatment can be prescribed to assist them back to their normal way of living, but also of individual patients, to assess their progress and to give useful information to the doctor ... It is necessary for prospective students to have a scientific outlook and to have shown some ability in science subjects. They should also be artistic"[1] and should have a certain dexterity and skill in practical work. Organising ability is also needed.

Orthoptics

"An orthoptist must be ingenious, patient and able to inspire both interest and confidence. The best orthoptist is one who has a facility for teaching and an aptitude for dealing with people, particularly children. Although the profession is not exclusively for women, they are considered to be temperamently more suited for the work they are required to undertake."[2]

Physiotherapy (and Remedial Gymnastics)

"... Perhaps the most important quality needed by physiotherapists is a genuine liking for people and a real interest in the rehabilitation of the sick and injured ... It is essential for physiotherapists to win their patients' confidence if treatment is to have the best possible effects. Physiotherapists need a great deal of patience and a friendly, cheerful manner. They should, however, be capable of showing firmness and of giving instructions clearly and with authority. A genuine sympathy with others is needed, but a physiotherapist should understand people sufficiently to know when to express sympathy and when to give encouragement. The work demands good powers of observation ..."

"Physiotherapy as a career will generally appeal to candidates who like a physically active life. Good health and physique are

---

1. From The Occupational Therapist - a pamphlet (No.53) issued by the Central Youth Employment Executive - pub. by H.M.S. Office and submitted to the Association of Occupational Therapists. March 1954.

2. See "Orthoptics". A prospectus issued by the British Orthoptic Society. May 1951.

needed. Much of the work is strenuous ... some forms of treatment require sustained physical effort."[1]

Speech Therapy

"Speech Therapy ... demands a genuine liking for others together with a desire to help them. The speech therapist should be interested in people as individuals and have an understanding of their characters and personal problems ... Imagination, intelligence and initiative are needed ... Tact and patience and practical sympathy are necessary ... Much of the work is with children and ... it is important for a speech therapist not only to like children but to be a person whom children naturally like and trust."
"A speech therapist should herself speak well ... Normal hearing with a quick perception of slight differences in sound is needed. The work is not physically strenuous but normal health and physique are needed, with a calm and stable temperament."[2]

1. From The Physiotherapist, a pamphlet, (No.52) issued by the Central Youth Employment Executive, pub. by H.M.S. Office and submitted to the Chartered Society of Physiotherapy. June 1954.
2. From The Speech Therapist, a pamphlet, (No.51) issued by the Central Youth Employment Executive, pub. by H.M.S. Office and submitted to the College of Speech Therapists. Jan. 1954.

Appendix 3 (d)

Desirable Extras for entrants to the professional training courses

Qualities particularly stressed by all:-

Maturity, ingenuity, and a gift for imparting confidence and information.

All call for some post General Certificate of Education work, and for more than the minimum requirements.

For Occupational Therapy

Science Subjects
Languages
Mathematics
Arts and/or Crafts - to include design)
Domestic Science) if not at the expense of
Secretarial Subjects) further general education

For Orthoptics

English
Art
Languages

For Physiotherapy and Remedial Gymnastics

Mathematics
Physics and/or Chemistry to Advanced Level
Gymnastics

For Speech Therapy

Music
More than one foreign language
" " the essential scientific subjects

Appendix 3 (e)

Present Training Fees

		1st Year	2nd Year	3rd Year	TOTAL
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
Occupational Therapy	School 1	78	72	-	150
	" 2	90	90	90	270
	" 3	65	65	65	195
Orthoptics	" 1	75	75	25	175
	" 2	67 10 -	67 10 -	67 10 -	135
	" 3	78 15 -	78 15 -	-	157 10 -
Physiotherapy	" 1	50	30	30	110
	" 2	35	35	35	105
	" 3	70	70	70	200 gns.
Speech therapy	" 1	90	90	90	270
	" 2	90	90	90	270
	" 3	58	55	55	168
Remedial Gymnastics		1 yr. only	-	-	£56

(f)

General Professional Fees

Including Examination Fees

	Total Examination Fees -	Professional Registration Fees -	Membership Fees - p.a.
	£ s. d.	£ s. d.	£ s. d.
Occupational Therapy	19 19 0	10 6	4 4 0
Orthoptics	5 5 0	5 5 0	4 4 0
Physiotherapy	21 0 0	10 10 0	3 3 0
Speech Therapy	21 0 0	-	4 10 0
Remedial Gymnastics	2 2 0	10 6	3 3 0

Appendix 3g.

P.T.A. Circular No. 17

WHITLEY COUNCILS FOR THE HEALTH SERVICES (GREAT BRITAIN)

PROFESSIONAL AND TECHNICAL COUNCIL "A"

Management Side Secretary

L. H. G. JEWSBURY,
14 Russell Square,
London, W.C.1.

Tel.: MUSeum 6811.

Staff Side Secretary

Miss M. J. NEILSON,
Chartered Society of Physiotherapy,
Tavistock House (South),
Tavistock Square,
London, W.C.1.

Tel.: EUSton 1676.

GRADINGS, SALARIES AND CONDITIONS OF SERVICE OF ALMONERS, OCCUPATIONAL THERAPISTS, ORTHOPTISTS, PHYSIOTHERAPISTS, PSYCHIATRIC SOCIAL WORKERS, REMEDIAL GYMNASTS, SPEECH THERAPISTS AND THERAPEUTIC DIETITIANS

The following agreement relates to full-time staff in the professions named above who are employed in England, Wales and Scotland by Regional Hospital Boards, Hospital Management Committees, Boards of Management, Boards of Governors of Teaching Hospitals, Local Health Authorities and Local Education Authorities and who hold the qualification specified in the agreement.

The 1st Report and Supplement thereto, and the 2nd, 3rd, 4th and 5th Reports of the Joint Negotiating Committee (Hospital Staffs), the agreement of the National Joint Committee for Staffs in Health Services (Scotland), P.T.A. Circulars Nos. 1, 5 and 7 as far as they relate to full-time Almoners, Occupational Therapists, Orthoptists, Physiotherapists, Psychiatric Social Workers, Remedial Gymnasts, Speech Therapists and Therapeutic Dietitians, are now superseded.

1. *Almoners*

(a) *Qualifications.*—The gradings and salaries are for almoners registered with the Institute of Almoners (including almoners who are on the Supplementary Register of the Institute).

(b) *Definitions of grades and salaries*

Almoner

An almoner working under the supervision of a Head Almoner ... ... £410×£15—£485

Senior Almoner

An almoner, with not less than three years' experience as an almoner after qualification, working under a Head Almoner in a post of special responsibility (in large hospitals only) *£465×£15—£525

Almoner-in-sole-Charge

An almoner, with not less than three years' experience as an almoner after qualification, working single-handed (i.e. not under the supervision of a Head Almoner)

or

Head Almoner I

An almoner, with not less than three years' experience as an almoner after qualification, in charge of one Almoner in the basic grade *£465×£15—£555

* If, exceptionally, almoners without the three years' experience as an almoner after qualification have to be appointed to these posts the minimum of the scale is to be abated by one increment for each year, or part of a year, short of the required three years.

Head Almoner II†

In charge of two to five almoners ... ... £560×£20—£660

Head Almoner III†

In charge of six or more almoners... ... £625×£20—£725

Deputy Head Almoner†

A Senior Almoner as defined above appointed as Deputy Head Almoner in a department with six or more almoners in addition to the Head Almoner III. There can be only one such post under the Head Almoner ... ... £490×£15—£550

† For these posts not less than three years' experience as an almoner after qualification is essential.

2. *Occupational Therapists*

(a) *Qualifications.*—The gradings and salaries are for occupational therapists who hold a Diploma of the Association of Occupational Therapists or a qualification approved by the Scottish Association of Occupational Therapists.

(b) *Definitions of grades and salaries*

Occupational Therapist

An occupational therapist working under the supervision of a Senior or Head Occupational Therapist ... ... £400×£15—£475

Senior Occupational Therapist

An occupational therapist, with not less than three years' experience as an occupational therapist after qualification, working single-handed (i.e. not under the supervision of a Senior or Head Occupational Therapist), or in charge of one occupational therapist ... ‡£455×£15—£515

‡ If, exceptionally, occupational therapists without the three years' experience as an occupational therapist after qualification have to be appointed to these posts the minimum of the scale is to be abated by one increment for each year, or part of a year, short of the required three years.

Head Occupational Therapist—Grade I†

In charge of two or three occupational therapists in the basic grade... ... ... £470×£15—£530

Head Occupational Therapist—Grade II†

In charge of four to eight occupational therapists ... ... £500×£15—£590

Head Occupational Therapist—Grade III†

In charge of nine to thirteen occupational therapists ... ... £550×£20—£650

Head Occupational Therapist—Grade IV†

In charge of fourteen or more occupational therapists ... ... £590×£20—£690

Assistant Head Occupational Therapist†

An occupational therapist appointed as Assistant Head Occupational Therapist in a department with at least four occupational therapists in addition to the Head Occupational Therapist. There can be only one such post under the Head Occupational Therapist.

I. Where there are four to thirteen occupational therapists in addition to the Head Occupational Therapist ... ... £460×£15—£520

II. Where there are fourteen or more occupational therapists in addition to the Head Occupational Therapist ... ... £470×£15—£530

† For these posts not less than three years' experience as an occupational therapist after qualification is essential.

(c) *The Auxiliary Certificate*

Occupational therapists who hold the Auxiliary Certificate of the Association of Occupational Therapists ... ... £330×£15—£375

(d) *The* 1943 *Certificate*

Occupational therapists who hold the 1943 Certificate of the Association of Occupational Therapists ... ... £390×£15—£435

3. *Orthoptists*

(a) *Qualifications.*—The gradings and salaries are for orthoptists who hold the Diploma of the British Orthoptic Board.

(b) *Definitions of grades and salaries*

Orthoptist

An orthoptist (i) working under the supervision of a Senior or Head Orthoptist, or (ii) not employed on teaching but under the supervision of a Teacher in a training school for orthoptists ... ... £380×£15—£455

Single-handed Orthoptist

An orthoptist with not less than three years' experience as an orthoptist after qualification, working single-handed (i.e. not working under the supervision of a Senior or Head Orthoptist) ... ... *£435×£15—£555

Senior Orthoptist

An orthoptist, with not less than three years' experience as an orthoptist after qualification, in charge of a department or clinic with one orthoptist in the basic grade ... ... *£435×£15—£555 ×£20—£595

* If, exceptionally, orthoptists without the three years' experience as an orthoptist after qualification have to be appointed to these posts the minimum of the scale is to be abated by one increment for each year, or part of a year, short of the required three years.

Head Orthoptist

An orthoptist, with not less than three years' experience as an orthoptist after qualification, in charge of a department or clinic with two or more orthoptists in the basic grade ... £500×£20—£620

Teacher in Training School for Orthoptists

An orthoptist holding an Assistant Teacher's or a Teacher's Certificate employed on teaching in a training school for orthoptists ... £530×£20—£670

Head Teacher in Training School for Orthoptists

An orthoptist holding a Teacher's Certificate appointed as head teacher in a training school for orthoptists where there are more than 6 students ... ... £575×£20—£675 ×£25—£725

In a training school for orthoptists where there are 6 or fewer students ... ... £550×£20—£650 ×£25—£700

4. *Physiotherapists*

(a) *Qualifications.*—The gradings and salaries are for physiotherapists who are registered with the Chartered Society of Physiotherapy or who hold the Diploma granted by the Faculty of Physiotherapists before 1st January, 1952.

(b) *Definitions of grades and salaries*

Physiotherapist

A physiotherapist working under the supervision of a Senior or Superintendent Physiotherapist ... ... £400×£15—£475

Senior Physiotherapist

A physiotherapist with not less than three years' experience as a physiotherapist after qualification (i) working single-handed (i.e. not working under the supervision of a Senior or Superintendent), *or* (ii) in charge of one physiotherapist in the basic grade, *or* (iii) in charge of a clearly defined division within a large physiotherapy department and carrying responsibilities greater than those of the basic grade ... ... *£455 × £15—£515

* If, exceptionally, physiotherapists without the three years' experience as a physiotherapist after qualification have to be appointed to these posts the minimum of the scale is to be abated by one increment for each year, or part of a year, short of the required three years.

Superintendent Physiotherapist I†

In charge of two or three physiotherapists in the basic grade ... ... £470 × £15—£530

Superintendent Physiotherapist II†

In charge of four to eight physiotherapists £500 × £15—£590

Superintendent Physiotherapist III†

In charge of nine to thirteen physiotherapists ... ... £550 × £20—£650

Superintendent Physiotherapist IV†

In charge of fourteen or more physiotherapists ... ... £590 × £20—£690

Assistant Superintendent Physiotherapist†

A physiotherapist appointed as Assistant Superintendent Physiotherapist in a department with at least 6 physiotherapists in addition to the Superintendent. There can be only one such post under the Superintendent Physiotherapist.

I. When there are 6 to 13 physiotherapists in addition to the Superintendent Physiotherapist ... ... £460 × £15—£520

II. Where there are 14 or more physiotherapists in addition to the Superintendent Physiotherapist ... ... £470 × £15—£530

† For these posts at least three years' professional experience as a physiotherapist after qualification is essential.

Physiotherapy Teachers

Student Teacher

A physiotherapist who is training for a teaching certificate of the Chartered Society of Physiotherapy ... ... £430 × £15—£475

Student Teachers should be placed on this scale at the salary point equal to their present

salary or if there is no such point the point next above their existing salary—subject to the maximum of £475 per annum not being exceeded.

Teacher

A physiotherapist who holds a teaching certificate of the Chartered Society of Physiotherapy employed on teaching in a training school for physiotherapists ... ... £475×£15—£535 ×£20—£635

Assistant Principal

This grade applies to the Physiotherapy Teacher appointed as Assistant Principal in a training school for physiotherapists. There can be only one such post in any school ... £525×£15—£585 ×£20—£685

Principal I

The head teacher in a training school for physiotherapists with an average annual intake of 10 to 24 students ... ... £575×£20—£675 ×£25—£750

Principal II

The head teacher in a training school for physiotherapists with an average annual intake of 25 or more students ... ... £620×£20—£700 ×£25—£800

5. *Psychiatric Social Workers*

(a) *Qualifications.*—The gradings and salaries are for psychiatric social workers who hold the Mental Health Certificate of the London School of Economics and Political Science (University of London) or the Certificate for Psychiatric Social Workers of the University of Manchester or the University of Edinburgh.

(b) *Definitions of grades and salaries*

Psychiatric Social Worker

A psychiatric social worker working under the supervision of a Senior Psychiatric Social Worker ... ... £470×£15—£560

The minimum of £470 is linked with age 27, with an abatement of £15 for each year below that age.

Psychiatric Social Worker in Sole Charge

Senior Psychiatric Social Worker I

A psychiatric social worker with not less than two years' experience as a psychiatric social worker after qualification:

(i) in sole charge (i.e. not responsible to a Senior Psychiatric Social Worker)

or

(ii) in charge of a clinic or department where there is one other psychiatric social worker‡ ... ... *£500×£20—£640

* If, exceptionally, psychiatric social workers without the two years' experience as a psychiatric social worker after qualification, have to be appointed to these posts the minimum of the scale to be abated by £15 for each year, or part of year, short of the required two years.

Senior Psychiatric Social Worker II†

In charge of a clinic or department where there are two other psychiatric social workers‡ £560×£20—£660

Senior Psychiatric Social Worker III†

In charge of a clinic or department where there are three or more other psychiatric social workers‡ ... ... £625×£20—£725

† Not less than two years' experience as a psychiatric social worker after qualification is essential.

‡ Even though the posts in the establishment may be filled for the time being by trainees or social workers who do not possess the qualification referred to in 5 (*a*) above.

Teacher (*Supervisor*)

This grade applies to a psychiatric social worker employed at a centre selected and approved by the University of London, Manchester, or Edinburgh for regular individual instruction of psychiatric social work students in a post designated as a supervisor's post by the training course authority ... £560×£20—£680

This salary can be retained only as long as the post remains designated as a supervisor's post.

Senior Teacher

This grade applies to a psychiatric social worker employed at a centre selected and approved by the Universities of London, Manchester or Edinburgh for regular individual instruction of psychiatric social work students who has full responsibility for administering a department in which six or more students are receiving supervision and instruction in practical work. There would be only one Senior Teacher at any one centre ... £625×£20—£725

This salary can be retained only as long as the post fulfils the definition.

6. *Remedial Gymnasts*

(a) *Qualifications.*—The gradings and salaries are for remedial gymnasts who hold a certificate granted to each successful candidate on completion of a training course in remedial gymnastics and recreational therapy held at Pinderfields General Hospital, Wakefield.

(b) *Definitions of grades and salaries*

Remedial Gymnast

A remedial gymnast working under the supervision of a Senior or Head Remedial Gymnast... ... ... £380×£15—£455

Senior Remedial Gymnast

A remedial gymnast with not less than three years' experience as a remedial gymnast after qualification:

(i) working single-handed (i.e. not under the supervision of a Senior or Head Remedial Gymnast)

or

(ii) in charge of one remedial gymnast in the basic grade ... ... *£435×£15—£495

* If, exceptionally, remedial gymnasts without the three years' experience after qualification as a remedial gymnast have to be appointed to these posts the minimum of the scale to be abated by one increment for each year, or part of year, short of the required three years.

Head Remedial Gymnast I†

In charge of two remedial gymnasts in the basic grade ... ... £450×£15—£510

Head Remedial Gymnast II†

In charge of three or four remedial gymnasts in the basic grade ... ... £465×£15—£555

Head Remedial Gymnast III†

In charge of five or more remedial gymnasts in the basic grade ... ... £500×£20—£600

† For these posts not less than three years' experience as a remedial gymnast after qualification is essential.

7. *Speech Therapists*

(a) *Qualifications.*—The gradings and salaries are for speech therapists who hold a Diploma of the College of Speech Therapists.

(b) *Definitions of grades and salaries*

Speech Therapist

A speech therapist under the supervision of a Head Speech Therapist working on the same premises ... ... £400×£15—£460

Single-handed Speech Therapist

A speech therapist with not less than three years' experience as a speech therapist after qualification (i) in sole charge of a speech clinic, *or* (ii) in charge of a speech clinic without an assistant, but under the supervision of a Head Speech Therapist working elsewhere *£455×£15—£560

Head Speech Therapist I

A speech therapist with not less than three years' experience as a speech therapist after qualification responsible for a clinic or clinics where one other speech therapist is employed *£455×£15—£545 ×£20—£605

* If, exceptionally, speech therapists without the three years experience as a speech therapist after qualification have to be appointed to these posts the minimum of the scale to be abated by one increment for each year, or part of year, short of the required three years.

Head Speech Therapist II

This grade applies to a speech therapist with not less than three years' experience after qualification, responsible for a clinic or clinics where two or more other speech therapists are employed ... ... £560×£20—£660

8. *Therapeutic Dietitians*

(a) *Qualifications.*—The gradings and salaries are for therapeutic dietitians who hold a qualification approved by the British Dietetic Association.

(b) *Definitions of grades and salaries*

Therapeutic Dietitian

A therapeutic dietitian working under the supervision of a Senior or Chief Therapeutic Dietitian ... ... £410×£15—£485

Senior Therapeutic Dietitian

A therapeutic dietitian with not less than three years' experience as a therapeutic dietitian after qualification (i) working single-handed (i.e. not under the supervision of a Senior or Chief Therapeutic Dietitian), *or* (ii) in charge of one therapeutic dietitian ... †£465×£15—£555

† If, exceptionally, therapeutic dietitians without the three years' experience as a therapeutic dietitian after qualification have to be appointed to these posts the minimum of the scale to be abated by one increment for each year, or part of year, short of the required three years.

Chief Therapeutic Dietitian—Grade I‡

In charge of two or three therapeutic dietitians... ... ... £490×£20—£590

Chief Therapeutic Dietitian—Grade II‡

In charge of four or more therapeutic dietitians... ... ... £525×£20—£625

‡ For these posts not less than three years' professional experience after qualification is essential.

Deputy Chief Therapeutic Dietitian

A therapeutic dietitian with not less than three years' experience as a therapeutic dietitian after qualification appointed as Deputy Chief Therapeutic Dietitian in a department with four or more therapeutic dietitians in addition to the Chief Therapeutic Dietitian, Grade II. There can be only one such post under the Chief Therapeutic Dietitian ... ... £440×£15—£515

Allowances for training student dietitians

Where student dietitians are in training at a hospital approved by the British Dietetic Association for the training of students, the Chief Therapeutic Dietitian responsible for their training shall receive an allowance of 30s. a week; any other therapeutic dietitian in the hospital who is required to take an active part in the training of one or more of such students shall receive an allowance of 10s. a week while so engaged.

9. *Assimilation.*—(*a*) The general rule, subject to the provisions set out below, is that an officer in post on 1.5.52 shall be assimilated with effect from 1.5.52 to the incremental point on the new scale, corresponding to the incremental point reached on the old scale, e.g. an officer on the third incremental point of the old scale shall be assimilated to the third incremental point of the new scale.

(*b*) Where the old scale includes a stand-still period followed by one or more further increments, e.g. Single-handed Orthoptist, or Remedial Gymnast in Sole Charge, the corresponding point shall be determined as if each year in the stand-still period were an incremental point.

(*c*) Where the old scale is shorter than the new scale, e.g. the Senior Orthoptist, the corresponding point shall be determined as if the old scale extended to a length equal to the new scale.

(*d*) Where the officer is assimilated to a grade higher than the basic and this agreement provides for an abatement of the minimum of the scale for officers who have not had the specified number of years of professional experience after qualification, the corresponding point in the new scale shall be determined as follows:

(i) If the officer had had not less than two years' professional experience after qualification when he was appointed to the higher grade, the corresponding incremental point will be determined in accordance with sub-paragraphs (*a*) to (*c*) above.

(ii) If the officer had not had two years' professional experience after qualification when he was appointed to the higher grade, and has had less than five years' experience in the higher grade, the corresponding point on the new scale will be determined after abating the minimum by one increment for each year, or part of year, short of two years. If the officer has had at least five years in the higher grade there shall be no abatement.

(*e*) Where the officer is in a grade for which the Joint Negotiating Committee (Hospital Staffs) or the National Joint Committee for Staffs in Health Services (Scotland) required a longer period of professional experience since qualification than is prescribed in this agreement, e.g. Senior Speech Therapists, the corresponding point on the new scale will

be determined after allowing for the additional number of years of experience stipulated in the old agreement for the old scale beyond the number stipulated for the new salary scale in this agreement.

(*f*) In all cases the incremental date shall remain unchanged.

(*g*) Where the officer at 30.4.1952 was in receipt of a flat rate salary his entry point into the new scale for his grade shall be determined by the number of years' service since appointment to that grade or 5th July, 1948, whichever is the later. Unless a common incremental date is in force, the incremental date shall be the anniversary of the date of appointment, or 5th July, as the case may be.

(*h*) The point of entry of an officer appointed on or after 1.5.1952 shall be determined in accordance with paragraphs 15, 16 and 17 of this agreement.

(*i*) If at the date of this circular an officer's salary is higher than the salary (including London weighting where applicable) that he would receive at that date as a result of the application of the above assimilation terms, he shall retain that salary on a mark-time basis until it is overtaken by the salary (including London weighting, where applicable) that he would receive if he had been assimilated to the new salary scale in accordance with the above provisions.

He shall then enter the new scale at that salary and proceed up the scale by normal annual increments.

10. *Additional qualifications.*—Where any of the following qualifications are stipulated by the employing authority as necessary for the post the following allowances in addition to the salary scales set out in this Circular shall be paid to physiotherapists and physiotherapy teachers employed in such posts.

Certificate in Orthopaedic Nursing	£20 p.a.
C.S.P. Certificate in Hydrotherapy	£15 p.a.
State Registered Nurse	£20 p.a.
Diploma of Physical Training College ...	£20 p.a.

An allowance of £20 p.a. in addition to the salary scales set out in this Circular shall be paid to occupational therapists who hold the dual qualifications of the Association of Occupational Therapists, i.e. the psychological qualification and the physical qualification, where the dual qualifications are stipulated by the employing authority as necessary for the post.

11. *London Weighting.*—The salary scales of officers employed in the Metropolitan Police Area and the City of London shall be subject to London weighting on the following basis:

Age under 21	£10
21–25...	£20
26 and over	£30

12. *No Detriment Clause.*—An officer in post at the date of this Circular shall have the option of retaining his old salary scale and conditions of service as a whole, instead of taking the new scale and new conditions of service as a whole. He may not retain his old salary scale with one

or more of the new conditions of service, nor take the new salary scale while retaining one or more of his old conditions of service (except as provided in 14 below). London weighting cannot be added to his old salary scale.

13. *Working Hours*

(a) *Almoners, Psychiatric Social Workers, Remedial Gymnasts.*—The normal working week shall be 39 hours (excluding meal-times).

(b) *Speech Therapists.*—The normal working week shall be 33 hours (excluding meal-times) which shall include time occupied in consultation, visiting, etc.

(c) *Occupational Therapists and Physiotherapists.*—The normal working week shall be 36 hours (excluding meal-times). Where on occasion pressure of duties makes it necessary for staff to work beyond these hours in any week, the first three hours above 36 shall not rank for time off in lieu.

(d) *Orthoptists.*—The normal working week shall be 39 hours (excluding meal-times), which shall include 33 hours of clinical work.

(e) *Therapeutic Dietitians.*—The normal working fortnight shall be 84 hours (excluding meal-times).

Where staff in any of the above categories are required by the employing authority to work substantially in excess of the normal, time off in lieu should be given as far as circumstances permit.

14. *Annual Leave.*—The annual leave allowances shall be as follows:

The Basic Grade in each of the eight professions ...	3 weeks
All grades other than the Basic Grades and Teachers ..	4 weeks
Physiotherapy Student Teachers	4 weeks
Orthoptist, Psychiatric Social Worker and Physiotherapy Teachers	5 weeks

The foregoing leave is in addition to statutory and general national holidays.

An officer shall not be entitled to take leave until he has completed six months in the Health Service.

For the purpose of this paragraph the annual leave year shall be from 1st April to the succeeding 31st March.

The annual leave of an officer in post at the date of this Circular shall, whilst he or she remains in his or her present post, not be less than it was immediately prior to the date of this Circular.

An officer employed by a Regional Hospital Board, Hospital Management Committee, Board of Management or Board of Governors at the date of this Circular shall have the right to retain the leave allowance attaching to his or her present post on transfer to a fresh post on a similar or higher grading under one of the aforementioned authorities.

The right of an officer to retain a leave allowance on transfer does not apply to transfers to or from posts where a local authority is the employing authority.

15. *New entrants.*—New entrants to posts where the terms of this Circular apply shall be appointed at the minimum of the scale, except in the case of physiotherapists covered by P.T.A. Circular No. 2 and the

Addenda thereto who may at the discretion of the employing authority enter at points above the minimum of the scale, as provided for in that Circular and Addenda.

16. *Transfers.*—An officer shall retain his position on the scale on taking up a fresh appointment in the same grade where the terms of this Circular apply. (When determining the appropriate point on the scale any London weighting shall be disregarded.)

17. *Salary on Promotion.*—(*a*) Salary on promotion shall be the minimum of the new scale, or, if the salary in payment before promotion is equal to or higher than the minimum of the new scale, the point on the new scale next above the existing salary. In applying this formula employing authorities shall disregard any payment of London weighting and/or any additional allowances including any acting allowance, and shall take into account the provisions in the footnotes with regard to the abatement of salary where the specified number of years' professional experience has not been satisfied.

(*b*) Where there is a fixed incremental date officers promoted to a new grade shall not be entitled to have an increment on the fixed incremental date following promotion unless they have at that time served at least six months in their new grade, save that if the application of this principle would have the result that an officer on the fixed incremental date following promotion would receive a salary not higher than he or she would have received if not promoted, the officer shall be entitled to an increment even if he or she has served less than six months in the grade.

(*c*) Where there is no fixed incremental date officers promoted to a new grade shall not be entitled to retain their old incremental date and the new incremental date shall be the date of promotion, save that if the application of this principle would have the result that an officer with the date of promotion as his incremental date would receive at any time during the 12 months after promotion a salary not higher than he or she would have received if not promoted then the officer shall be entitled to retain his old incremental date.

18. *The counting of staff when grading senior officers.*—(*a*) When staff are being counted for the purpose of assessing the higher grade posts, only those persons who are doing work of the appropriate profession shall be counted except where otherwise provided; e.g. an unqualified person in a Physiotherapy Department shall be counted only if he/she is doing work normally undertaken by a qualified physiotherapist and was appointed to the post in the Health Service before 20th August, 1951. In the case of occupational therapists, staff such as handicraft teachers, tradesmen or craftsmen appointed for instructional duties to the Occupational Therapy Department and working under the direction of the Senior or Head Occupational Therapist shall be included.

(*b*) Casual vacancies shall be ignored.

(*c*) One part-time officer shall count as one. Where there is more than one part-time officer employed their working time on professional duties shall be totalled and on the basis of a normal working week credit given for the appropriate equivalent of whole-time staff, any fraction over being counted as one.

19. *Occupational Clothing.*—The employing authority shall be responsible for the provision and laundering of sufficient white or coloured coats or other suitable occupational clothing. They are free to give an equivalent cash allowance in lieu if they so prefer.

20. *Acting Rank.*—An officer with the full number of years' experience required of an officer holding a higher post, who performs for a consecutive period of not less than three months the duties appropriate to that higher officer, shall receive for that period an additional payment. The amount of the payment shall be half the difference between the minimum scale rates of the substantive and acting positions.

An officer *without* the full number of years' experience required of an officer holding a higher post, who performs for a consecutive period of not less than three months the duties appropriate to that higher officer, shall receive for that period a responsibility allowance of £10 per annum.

21. *Sickness Payments.*—Sickness payments shall be in accordance with P.T.A. Circular No. 16.

22. *Date of Operation.*—The new salary scales shall be put into operation as from 1st May, 1952. The annual leave conditions shall operate as from the beginning of the current leave year; the other conditions as from the date of this Circular.

22*nd January*, 1953.

(1/53) (19867r) Wt. 8341—8335 1000 7/53 D.L.

Appendix 3(h)

The numbers of members of certain professional associations - as at Jan. 1955

Association of Occupational Therapists		1470
Scottish Association of Occupational Therapists		
The British Orthoptic Society	*	a) 600 b) 370
The Chartered Society of Physiotherapists	⊕	a^1) 19,906 a^2) 15,133 b) 11,000
The Physiotherapists Association		800
The Faculty of Physiotherapists		-
The Association of Remedial Gymnasts	approx.	9,200
The College of Speech Therapists		800

Appendix 3(i)

The members in each profession employed in the National Health Service - as at Dec. 31. 1953 X

	Whole Time	Part Time
Occupational Therapists	1,163	216 Ø
Orthoptists	148	133
Physiotherapists	3,353	954
Remedial Gymnasts	181	10
Speech Therapists	22	144

* a) = Those registered
b) = Those practising

⊕ a^1) = Registered
a^2) = " & addresses known

X Annual Report of the Minister of Health in year ended 1953. pub. Nov. 1954.

Ø Of these a number are "unqualified" and some are not members of either Association.

Appendix 3 (j)

Post-graduate facilities available in each profession

In Occupational Therapy

Teachers' Diploma

In Orthoptics

Teachers' Diploma

In Physiotherapy

Examination in Hydrotherapy
Examination for Teachers in Physiotherapy
(to include Electrotherapy)
Examination for Teachers in Hydrotherapy
(Post-registration refresher courses in special aspects of the work. These are of only about one week's duration and there is no examination and no certificate).

Qualification for Fellowship

In Speech Therapy

Qualification for Fellowship

Appendix 4

The grouping of the professions under the Whitley Council Machinery

The WHITLEY COUNCILS FOR THE HEALTH SERVICES are made up of -

The General Council -
"The General Council deals with those conditions of service and other matters which are of general application to all staffs covered by the Whitley Councils for the Health Services, (Great Britain), such as a minimum code of conduct. It also determines the lines of demarcation between the functional councils and has been responsible for drawing up and promulgating the Main Constitution of the Whitley Councils for the Health Services ..."[1]

The Administrative and Clerical Staffs' Council

The Ancillary Staffs' Council (For "domestic and analogous categories of employees in hospitals and allied institutions and services".[2]

The Nurses and Midwives Council

The Optical Staffs' Council

The Pharmaceutical Council

The Professional and Technical Staffs' Council "A" -
"The Council covers almoners, chiropodists, occupational therapists, orthoptists, physicists, physiotherapists, psychiatric social workers, psychologists, radiographers, remedial gymnasts, speech therapists and dictitians other than catering officers."[3]

The Professional and Technical Staffs' Council "B"
"The professional and technical grades within the scope of the Council are medical laboratory technicians, dental technicians, dispensing attendants, and engineers employed by hospital authorities."

---

1. The Hospitals Year Book. The Inst. of Hospital Administration. London. p.
2. ibid. p.
3. ibid. p. (Note the variation of interests)

Appendix 5

Proposals for the divisions of groups for State Registration and suggestions for the constitution of the Registering Councils and Boards

Registration for the Supplementary medical treatment services has been referred to several times in this thesis.[1] It is accepted that, although ideally all the professions might wish to follow precedent[2] and each have its own Registration Board, this is, numerically[3] and economically, not a reasonable proposition. Some form of combined registration board or council has yet to be agreed, but it is not inappropriate to outline a scheme emerging from the "Cope" proposals[4] which, though unacceptable in the form described, suggested a possible structure.

Accepting the need for a combined co-ordinating registration council,[5] it is suggested that this, together with a registration committee or board for each profession to be registered, be the form of machinery for state registration of these services. It is suggested that the council shall be constituted of one representative of each profession,[6] and a corresponding number of medical and other experts,[7] with an independent chairman. To express an entirely personal view, one feels that this equal balance, with the independent chairman is, in fact, the only kind of structure through which the professions can fulfil their proper functions, and, for reasons already given in the text,[8] they should not be expected to accept a heavier representation of medical and other experts. The fact that each profession would, in any case, only have one representative on

---

1. pp.91,92, 136, 137, 138, 142.
2. See p.136.
3. See p.137.
4. See p.91.
5. "4" on diagram facing p. 189.
6. ø " " " p. 168.
7. § " " " p. 189.
8. Preface p.iii. pp.91 (2) and Fn.4. 137.

the registering council, where other professions are in the majority,[1] already suggests a serious imbalance of power. This can be partly rectified by majority professional representation on the professional committees or boards,[2] and by these committees or boards having proper professional responsibility. Because negotiations are still continuing it is not intended, however, to discuss these propositions further here. The all important factors seem to be that any final plans shall be consistent with precedent and with the charge and exercise, by each profession, of the responsibility for its service.

---

1. The General Medical Council
   The General Nursing Council
   The Pharmacists
2. "3" in diagram facing p. 189.

Appendix 6

Financial considerations associated with the proposals contained in this thesis

A. The present range of fees.

B. The costs of running a Certificate course in Socio-medical studies.

C. Costs of running separate professional training courses for the same numbers.

D. The cost of running combined professional training courses under an Institute.

A. The present range of fees

The present approximate range of fees in the various professions under consideration is:-

Occupational Therapy -	£65	- £90	p.a.
Ø Orthoptics -	£70	- £80	p.a.
Physiotherapy -	£35*	- £70	p.a.
Speech Therapy -	£	- £90	p.a.

B. The costs of running a Certificate course in socio-medical studies.

Taking Scheme II[θ] as the basis for further amplification, the following calculations may give some indication of the costs involved.

Taking the numbers likely to be dealt with in each centre as:-

Occupational Therapists	20
Orthoptists	8
Physiotherapists	30
Speech Therapists	10
Total	68

It would be best, however, to calculate below this total when considering finances. Taking 60, then, as the figure for the annual intake, the department would be dealing with 120 students at one time. At 3 possible levels of fees the income would be as follows:-

120 students	@	£70	= £8,400
120 "	@	£80	= £9,600
120 "	@	£90	= £10,800

With rising costs it would seem reasonable to take the middle figure for further calculation, i.e. an income of £9,600.

Ø Usually for 2 years only - at most 2½ years.

* Heavy subsidies in Hospital overheads.

θ See p. 164.

Possible Expenditure per annam.

Salaries - Director	£1,250
4 Specialist Supervisory Tutors @ £850 to £900 each	3,600
1 Assistant	750
Clerical Staff	800
Wages Maintenance and Cleaning	800
Lectures Fees	600
Leaving - for all overheads and other costs -	1,800
	9,600

C. Costs of running separate professional training courses for the same numbers

As these courses would only cover 1 year the numbers would be 60. This might be divided as follows, and taking the fees again as £80:-

18 Occupational Therapists	@	£80	=	£1,440 *
6 Orthoptists	@	£80	=	£ 480
28 Physiotherapists	@	£80	=	£2,240
8 Speech Therapists	@	£80	=	£ 640 *

On these separate incomes it is doubtful if any group could be given an adequate training. It seems clear that the supervisors of at least 3 of the courses would have to have part-time hospital appointments if salaries were to be covered. It is clear, too, that some form of grant in aid or subsidy would be needed for each course.

D. The cost of running combined professional training courses under an Institute

If the training courses were combined under an Institute the expense of overheads might be lessened, and certain lecture and other expenses shared, but the salary for a Director might be added. The total of the fees listed above, * to * gives an income of £4,800

Possible Expenditure - might be:-

Salaries - Director	£1,250
2 Full-time Prof. Supervisors (Occ.Therapy and Physiotherapy) @ £900 - each	1,800
2 Half-time Prof. Supervisors (Orthoptics and Speech Therapy) @ £900 - each	900
Clerical help	400
Maintenance and Cleaning	400
Leaving - for lectures, overheads, etc. only	50
	£4,800

It should be noted that, with the exception of those schools run in hospitals, and therefore getting "hidden" subsidies, fees for the training courses in these professions are higher than those charged for University social studies courses. There are clear indications then that, if the cost of professional trainings have to be kept parallel, some form of grant and/or subsidy would be necessary.Ø

It may be claimed that larger groups should be run at few centres. This would relieve expense to a certain degree only, however, and one of the purposes of suggesting groups of about the size proposed*, at a number of centres, is to lessen the need for students to live far from their home base. Residence costs might, for some at least, also be lessened.

Ø See p.27.

* This appendix p. 230.

Appendix 7

A plan which would enable candidates, without the usual pre-requisites,[1] to qualify professionally

1. 3 years as Hospital or Health Service Aide in not more than 2 Depts. of professional choice.[2]

2. Commendation and reports from professional supervisors of above.

3. Interview, selection and test or tests by professional training authorities.

4. Study at technical or night school for General Certificate of Education

   in a) English Language
   b) Human Biology
   } (Examination to be taken and passed)

5. Further subjects as special requirements -

   Suggest:- for Occupational Therapy

   2 subjects to General Certificate Level.*

   i.e. A Science
   Secretarial subjects
   Art
   Some suitable Craft subject - i.e. dressmaking.

   for Physiotherapy

   Physics and Chemistry to General Certificate Level.*

   for Orthoptics

   As for Physiotherapy or
   Mathematics to General Certificate Level and 1.*

   for Speech Therapy

   Physics or Chemistry to General Certificate Level.*

6. Entrance then to be given to the Certificate Course, Scheme II.

7. Credit to be given for $\frac{2}{3}$rds of the practical work required in this course, to enable candidates to give more time to study.

---

1. See plan facing p.199
2. Both departments should be those of one treatment service only.

* Examination and certificate not required.

Appendix 8 (a)

Notes on the proposal for Hospital "Aides"*

Suggest that those seeking posts as "aides" should offer:-

1. A B.R.C.S. or St. John's First Aid Certificate.

2. A knowledge of the principles of indexing and/or filing.

3. For special departments:-

Occupational Therapy	Ability in various musical, craft, or other occupational activities ... and clerical work.
Orthoptics	clerical work.
Physiotherapy	understanding of elements of electricity.
Speech Therapy	clerical, musical and occupational activities.

4. Aides might work in -
   Nursing Depts.
   Kitchens - (or diet kitchens)
   Radiography depts.
   Occ. Therapy depts.
   Orthoptic depts.
   Physiotherapy depts.
   Speech Therapy depts.
   Almoner's depts.
   Offices, etc. etc.

5. No department to have more than 1 aide to 2 fully trained people. (In many professions the ratio would be much lower)

6. Suggested general "in-training" of aide:-
   Responsibilities and ethics - i.e. Hospital "manners" including telephone manners - punctuality - tidiness etc.
   Approach to the patient.
   Care of the patient - bed comfort - chair comfort - posture - lifting etc.

7. Each department to which an "aide" is allocated, or to which he/she opts to go, would offer some further "in-training", to the degree necessary to enable the aide to give adequate but unqualified service in that department.

8. Aides should not be less than 17, and could be accepted up to 40 - 50.

9. Aides to be provided with a uniform.

* It is suggested that these "Aides" be, in fact, an extension of the group now defined as - "Nursing Auxiliaries" - but that this be renamed "Hospital or Health Service Auxiliaries" or "Hospital or Health Service Aides" - (i.e. not Nursing Auxiliaries).

Appendix 8(b)

The salary scale decided by the Industrial Court of the Ministry of Labour for Nursing Auxiliaries, (i.e. totally untrained persons male or female) over 21 is as follows -

£300 x £12.10 to £387. 10.
then x £7.10 to £395.

(A Board and Lodging charge of £132 is payable by resident nursing auxiliaries)

This scale applies to all but mental hospitals.

Mental Hospital scale:

Female Nursing assistants II (16 yrs to 20) -

£200 x £10 to £290 -

(Board and Lodging charge: £108)

Nursing assistants I (21 and over) -

£335 x £12.10 to £410
then x £15 to £425

(Board and Lodging charge £132)

Male Nursing assistants II -

at 18 - £280 x £10 - £290
19 - £285 x £10 - £295
20 - £290 x £10 - £300
21 - £295 x £10 - £305

Nursing assistants I -

£350 x £12.10 to £425
then x £10 to £440

(Board and Lodging £130)

Appendix 9

Description of the optional subjects proposed in section 1 (b) of Scheme II. p.

Introduction to Social Anthropology

"Scope and methods of social anthropology. The development of culture and the formation of culture types; the diffusion of culture; influence of geographical environment; race and culture. General characteristics of social structure in primitive amd more advanced communities. Comparative study of social institutions (such as the family and kinship, organization of labour, class and caste, law and government, religion and morals) in different periods and cultures. The classification of social types."

The Calendar. London School of Economics and Political Science. 1953-54. p.325.

The Theories and Methods of Sociology

"Relation between the natural sciences and the sciences of mind and society. The influence of the physical environment and the social effects of isolation and intercommunication. Biological factors. The use of historical and anthropological data in sociology. The role of psychology in sociological explanation. The methods employed in investigating contemporary social conditions. The nature of sociological generalisation. The development of sociology since Comte. Social factors, modes of interaction. Tradition. Inter-relation between economic, political and ethco-religious factors. Theories of social development, arrest and decay."

Ibid. p.354.

Modern Social Structure

"Population; birth-rates, death-rates; age structure; sex constitution; families and households; marriage rates, divorce rates, etc.; industrial and occupation distribution; urban and rural distribution; migration.

Distribution of wealth; standard of life and cost of living; housing; social classes.

Health and disease; delinquency.

Industrial conditions: relations between employers and employed; wages and hours; unemployment; industrial disease and accidents; Trade Unionism, Co-operative movement.

The Social Services, statutory and voluntary. Influence of newspapers, radio, cinema etc.

Political and religious affiliations.

Reference will be made to statistical and other surveys throughout."

Prospectus. University of Nottingham. School of Philosophy, Economics and Social Service. 1953-4. p.36.

Social Philosophy

Ethics as applied to social relationships. The state and the community. Nature of political obligation. Compulsion and consent. Rights and duties. Problems of liberty, justice and equality in relation to political and economic organisation. Ethical aspects of marriage and family. The basis of property. The ethics of collective action."

The Calendar. L.S.E. p.361.

Statistical Methods

"The main statistical technique used in the Social Sciences will be discussed with the aid of as little mathematics as possible."

Regulations and Syllabus - University of Birmingham Faculty of Commerce & Social Sciences. 1953-4. p.61.

Human Geography

"The meaning and content of environment, race and culture. Views as to connections between them. The changing nature of the relations between man and his geographical surroundings. Space relationships, past and present. Climate and Human Affairs. The problem of how cultures spread. Description and analysis of the economic and social life of communities at diverse levels of cultural achievement and in relation to their geographical environments and an outline of the rise and spread of the fundamental arts and crafts of civilization."

Prospectus. The University of Leeds. Arts. Social Studies. 1951-2. p.156.

The History of Art

The History of Music

Appendix 10

Brief discussion of other Services associated with those under survey, and reference to the relevance of the proposals made in this thesis to them

A. TREATMENT SERVICES[1]

Chiropody

This treatment is considerably more localised than any of those which have been described hitherto. It is described as "the treatment of superficial ailments of the feet and the maintenance of the feet in good condition".[2] It has, undoubtedly, a good general - as well as local - effect on the patient, for no person suffering from foot trouble can go about life normally or at ease. The position in relation to this work seems, however, in an extreme state of flux. The Cope report says:-

> "many chiropodists practise part-time, to supplement their incomes which are derived from work in a totally different sphere, e.g. in connection with hairdressing or some other trade."[3]

Is this, then, a repetition of the Barber-Surgeon history?

The impression must not be given, however, of totally part-time, subsidiary work with a variable training background. The trainings are, from all accounts, variable, it is true, but the best is said to occupy at least three years, to cover an adequate medical and specialist curriculum, and resulting practitioners claim to be highly expert therapists - so expert, in fact, that they claim a right to practise without prescription from a doctor. The implications of this cannot be fully considered, nor should they be judged, here.

Until the whole position in regard to training and practice is more fully clarified, however, it is difficult to see how, even if this were desired, chiropody could at the moment be included among the group sharing a basic training course. Without, too, in any way detracting from its

---

1. Although the social services may claim to treat this term has been used to distinguish this group from them.
2. Report of the Committee on Medical Auxiliaries. April 1951. p.36.
3. ibid.

contribution to the health and welfare of its patients, one cannot see that its emphasis is on its social responsibilities in the same way as it is for the main services under discussion. If, and when it has been able to find a solution for the problems and anomalies which now exist, it is possible, however, that its associations might be interested in joining with the other professional member bodies in the proposed Federation of Supplementary Medical Treatment Services.

Dietetics

The definition of a dietitian is:-

> "one who combines a sound knowledge of the scientific principles of nutrition with a practical knowledge of cooking, and can interpret standard and special dietary needs in such a way that the correct amounts and kinds of nutriments reach the consumer in palatable form."[1]

The profession originally sprang from nursing, but,

> "though at one time it was contended that dietitians should be recruited mainly from among trained nurses, experience has shown that it is not necessary for dietitians to have had previous training in nursing."[2]

Candidates are now recruited from those who

(1) Have a university degree in either Household and Social Service or Domestic Science - (or a degree in pure science which includes chemistry and physiology, plus three months approved cookery training).

(2) Are State Registered Nurses.

(3) Have a Teacher's Diploma in Domestic Science.

(4) Have the Certificate of Institutional and Catering Management of the Institutional Management Association.

(The time taken for the preliminary training is about three years.)

The subsequent Diploma Course of the British Dietetic Association takes a year or eighteen months. The functions of a dietitian are mainly to advise on general hospital diets and to arrange special diets, - in cases referred by the medical profession, to advise discharged patients on their diets, and to lecture to student dietitians, nurses and medical

---

1. Report on Medical Auxiliaries. p.49.
2. ibid. p.55.

students.[1] A dietitian may, with advantage be in charge of the catering for a whole hospital, working in co-operation with the Administrator, Matron and Steward.

Dietitians work, also, outside the hospitals, in connection with Local Government Authorities, in connection with school meals; and sometimes in visiting homes of patients. They also work for the Ministry of Food in research projects on nutrition.

That the Dietitians have established themselves as important and expert therapists in Health Services is apparent. There is no obvious and close link between them and the other services under discussion however, except that workers in several of the professions may all contribute to the treatment of particular patients, but they have, it appears, problems in training, particularly in the clinical and practical field, comparable with those in some of the other professions. It would appear, then, they might have reasons for being willing to join in common discussions on facilities and policies in regard to these, perhaps in the forum provided by a Federation, should this be formed, but from a study of their syllabus, it is doubtful if there is enough trend and data in common to warrant any attempt at combining in a basic general course.

Nursing

The nursing profession, with that of medicine, provides the background for all treatment services. It has its own methods of training, its clearly defined duties and sphere of work, and its capacities are stretched to the uttermost to cover these. Although, as has been shown, the early establishment of certain of the services[2] under discussion sprang from nurses' efforts and concern for their patients, it was obvious that, as the skill and knowledge in these newer professions increased and became more specialised, these extras could not be included in what was, and still is, an ever expanding nurses' curriculum. At the same time

1. This should be done by senior workers in all auxiliary medical treatment services.

2. Mainly Physiotherapy, and in part, Occupational Therapy. Also Dietetics - see p. 239.

other therapeutic services came from outside the nursing sphere[1] to join the group.

Has the student-nurse, then, any place in the propositions put forward in this thesis? He or she may well have. Is there any reason that a candidate who had taken the basic general course proposed under Scheme II might not proceed to nursing rather than one of the other professions? This would surely be welcomed and would undoubtedly strengthen the bonds between them all.

Radiography[2]

> "A radiographer is a person who carries out technical and mechanical duties in connection with diagnostic and therapeutic radiology under the direction of a medically qualified radiologist."[3]

The work concerns X-rays, which "are used in practically every department of medicine, and their use may well extend". This will mean the need for more radiographers, (the majority of whom are women), particularly if, as is already the case in some hospitals, a 24-hour X-ray service is instituted more widely.

It is interesting to note that, in this profession, there is a distinction between the diagnostic and the therapeutic radiographer, and further, that there is a marked preference for diagnostic radiography. Has this division been created in the hope of obtaining more workers? One wonders if it is really in the interests of the profession to have this separation, or if there is not a case for linking the two aspects to achieve better integration and, perhaps, greater efficiency.

The lack of facilities for training students is again evident[4] in this profession, and it is suggested too that more male radiographers should be recruited. There is still some variation in standards of training, as has been the case in all newly developing professions, but

---

1. Orthoptics, Speech Therapy, Remedial Gymnastics, and a part of Physio- and Occupational Therapy.
2. This is distinct from Radiology - which includes only fully trained medical specialists.
3. Report of Committee on Medical Auxiliaries. Sect.480, p.101.
4. True of all the services - including dietetics.

the professional association is doing all it can to level up standards by encouragement and broad regulations.

The normal course covers two years. The entry requirements is usually the General Certificate of Education passed in 4 subjects, including, (if possible), a scientific subject. As for Orthoptics, a year's course of physics and mathematics, if not taken as examination subjects in the General Certificate, is recommended.

From careful consideration of the evidence available, and without having expert knowledge in the professional work itself, it is felt that this group of supplementary medical treatment workers might well be interested in the common problems likely to be considered by the Federation proposed in this thesis, but that the basic general course as planned would have little to offer them.

B. SOCIAL SERVICES

Almoning

All the five services which have been the subject of this thesis have close links with almoners and other allied social workers in hospitals, local authority departments etc.

> "An almoner is a social worker trained to assist the medical practitioners in the investigation and treatment of disease by elucidating and adjusting social and economic factors which contribute to disability and impede restoration to health."[1]

The almoner claims independence from medical supervision, although acknowledging the medical officer in charge of the case as leader of the team of workers. The emphasis, if it can be so differentiated, is on treatment and adjustment by social and economic means, rather than by any particular para-medical technique. If it is possible to make a distinction, the supplementary medical treatment services should be termed "socio-medical"[2] and these "medico-social".[3]

---

1. Report on Committees on Medical Auxiliaries. p.25.
2. viz. The Occupational Therapist from King's College Hospital visits the homes of discharged patients often in company with the almoner, to advise on self-help aids etc.
3. With those who later became Psychiatric workers, Child Care Officers, etc. etc.

It is in conjunction with the Doctor, Almoner and (often the Disablement Resettlement Officer) in all general hospital work that the supplementary medical treatment workers consider the future of their patient. It is the Almoner who will negotiate the final factors of re-adjustment on the patient's behalf, but any one of the other services may be called in for some form of follow-up and advice.[1]

Almoners already share with other social workers in a basic University Social Studies course,[2] if they do not, as an increasing number do, take a Social Science Degree before undertaking their professional training. The basic general course proposed in this thesis would, therefore, be of no interest to them. Again, and only if the Federation proposed were to extend its forum and field to the social services, would almoners and their associates be likely to wish to share in its deliberations.

Psychiatric Social Work

"Psychiatric social workers are employed in close co-operation with psychiatrists in mental hospitals, psychiatric clinics, child guidance clinics or centres, in boarding homes or residential schools for maladjusted children, and in psychiatric services in remand homes, prisons and borstal institutions."[3]

Occupational therapists, particularly in their psychological work, and speech therapists are likely to have more contact with these social workers than are those of the other three professions under survey in this thesis. Psychiatric social workers "must be over 22 years of age, must hold a Social Service Certificate or Diploma or another suitable educational qualification, supplemented by practical training and experience of social work ... One year's specialised training is necessary."[4]

---

1. See Fn. 2 on previous page.
2. See Fn. 3 on previous page.
3. E.L. Younghusband. Social Work in Britain. Supplementary Report of Employment and Training of Social Workers. Carnegie Un. Kingdom Trust. Fife 1951. p.85.
4. Social Work. Careers Series (39). M. of Labour and Nat. Service. H.M. St. Office. May 1953.

It is obvious from the foregoing that there is little likelihood of, nor indeed any useful purpose in, suggesting any link between the basic general training of this group and those of the treatment services. Like the Almoners, they share, with Child Care officers, Probation officers and the like, in their own basic general course in social studies. Like the Almoners, too, however, they might be prepared to share in a Federation of Treatment and Social Services if the proposed federation were to extend its boundaries to include their interests.

Appendix 11

A list of statutory and voluntary services with which those under survey come into contact

Statutory Services

Ministry of Health.	Regional Boards. Hospital and Specialist Services. Hospital Management Committees. Local Health Authority Services including Welfare Services.
Ministry of Labour.	Disablement Advisory Committees. Disablement Resettlement Officers. Disabled Persons Employment Corporation and "Remploy" Industrial Rehabilitation Service.

Miners Welfare Commission - Miners Rehabilitation Centres.

Ministry of Pensions and National Insurance.

Ministry of Education: Local Education Authorities and Special Schools.

Other National or International Services

The British Council.
The World Health Organisation.
The International Cripples Association.

Voluntary Associations

The British Council of Rehabilitation.
The British Rheumatic Association.
The British Council for the Welfare of Spastics.
The British Legion.
The Central Council for the Care of Cripples.
The Central Council of Physical Recreation.
The Infantile Paralysis Fellowship.
The Mental Welfare Association.
The National Association of the Paralysed.
The " " for the Prevention of Tuberculosis.
The " Council of Social Service.
The Boy Scouts Association.
The Girl Guides "
The National Spastic Association.

Appendix 12

BIBLIOGRAPHY

O.T. = Occupational Therapy
Or. = Orthoptics
P. = Physiotherapy
R.G. = Remedial Gymnastics
S.T. = Speech Therapy

G. = of General interest to 2 or more professions
H. = History

R. = Bks. read - or to which reference has beem made
V. = Verified.

A						
Adair, J.	G	Lady & Gentleman Doctors	London	1812	R	143
Adams, F.		The Seven Books of Paul Aegineta	The Sydenham Society London	1844	R	25,28
Adler, A.	G.	Practice & Theory of Individual Psychology. Social Interest	London	1924		57 57
Agassiz, L.	O.T.	A Journey in Brazil	Boston	1868	R	60
Audry, N.	G.	L'orthopedie (trans. M. Audry)	London & Paris	1743	V	41
Appollodorus, F.	G.	(Loeb. Trans.)				
Aquapendente, F.	G.	De motu locali animalium secundum totum			V	31
Armstrong, J.	G.	The Art of Preserving Health		1784	R	49
Arnold, T.	S.T.	Lip-Reading & Language	London	1885	R	31.86
		Defects & Impediments of the Organs of Speech		1893	V	86
		The Language of the Senses		1897	V	86
B						
Bacon, Sir F.	G.	Sylva Sylvarum, or a National History	London	1679	R	36.37
Bacon, R.		The Cure of Old Age and Preservation of Youth. (Trans. R.Browne)	London	1683	R	29
Barclay, J.	G.	The Muscular Motions of the Human Body	Edinburgh	1808	R	50
Bartisch, G.	Or.	Opthalmodonleia, das ist Augendienst		1583	R	40
Bartlett, G.	G.	Remembering	Cambridge?			58
Baruch, S.	P.	An Epitone of Hydrotherapy	London	1920	R	75
Bell, C.	G.	An Exposition of the Natural System of the Human Body	-	-	V	57

Bell, C.	Or.	On the Motions of the Eye & the Nerves of the Orbit (Philosophical Translations)	London	1823	V	54
Bird, Golding	P.	Lectures on Electricity & Galvanism	London	1849	R	13.46
Blackman, F.W.		History of Human Society	London	1926	R	150
Bligh,	H.	(And Blaxland Stubbs), Sixty Centuries of Health and Physick	London	1931	R	24,29
Blundell, J.W.F.	G.	The Muscles & their Story from Earliest Times	London	1864	R	4.5.16. 22.28.82
" "	P.O.T.	Medicine & Mechanics	London	1852	V	82
Boerhaave, H.	G.	Concerning the Knowledge & Cure of Diseases. (Trans. from Latin)	Leyden ed.	1728	V	43
Boorde, A.	G.	Dyetary of Health ed. E.Poole	Leicester	1936	R	34.133
Borelli, G.	G.	De Motu Animalium	Rome	1680	V	32
Braid, J.	G.	Neurypnology - the power of the mind over the body	London	1846	V	44
Broad, E.	G.	Das Wasserbehandlung der Typhus	Berlin & Leipzig	1887	V	50
Brandt, T.	P.R.G.	Nouvelle methode gymnastique et magnetiques pour le traitement des maladies des organs du Bassin et principalement des affections uterines	Stockholm	1868	V	74
Brett, G.S.	H.	A History of Psychology	London	1912	R	7.13.32. 43.55
Bright, T.	G.	Hygeia, on Preserving Health, Therapeutica, on Restoring Health	London	1584	V	36
Brissot, M.	S.T.	L'Aphasie	Paris	1910	V	85
Broca, A.	S.T.	See L'aphasie de Broca, Francois	Paris	1908	V	85
Brock, A.J.	H.	Greek Medicine	London	1929	R	22
Brown (& Behnke)	S.T.	Voice, Song & Speech	-	1853	R	
Bryan, C.P.	G.	The Papyrus Ebers	London	1930	R	10
Buchan	G.	Domestic Medicine	London	1774	R	52
Buffon, G.L.	Or.	sur la cause de strabisme on des yeux louches	Paris	1743	V	54
Burt	G.	The Young Delinquent	London	1944	R	58
C						
Cantonnet (& Fillozet)	Or.	Strabismus - its Re-education (Trans. M.Coque)	Paris London	1932 1934	V	71
Carr-Saunders (& P.A. Wilson)	G.	The Professions	Oxford	1933	R	134.135
Castiglioni, A.	H.	A History of Medicine	London	1947	R	6.10.33. 75

Cattell, J.	Or.	Reactions & Perceptions.				58
		The perception of light	London	1908		58
Celsus, C.	G.	On Medicine (L. Targa's ed.)				
		Trans. A.Lee	London	1731	R	3
		" " Trans.Grieve.				
		Rev. Futvoye)	London	1837	R	19.20
Charcot, J.M.	G.	Clinical Lectures on Senile & Chronic Diseases. Trans. G.Sigerson and ref. therein to = 'Essai d'une distinction nosographique des divers etats nerveux compris sous le nom d'hypnotisme'.	Syd.Soc. London	1881	V	44
" "	G.	Lectures on the Diseases of the Nervous System	New Syd. Soc.	1876-89	V	55
Champoniere R.H.L.		Essai comparatif sur differents procedes de developpement musculaire	Paris	1906	V	74
Chassaigne, R.	R.G. and O.T.	Physiologie de l'equitation: a l'hygiene et a la therapeutique	Paris	1870	R	65
Cheyne, G.	G.	Essays on Health & Long Life		1725	R	47
Childe, G.	H.	What Happened in History	Pelican London	1946	R	23.30
Clark, J.S.	G.	Disabled Citizens	London	1931	R	130
Clarke, D. Stafford	O.T.	Psychiatry Today	Pelican London	1952	R	1
Cleobury, W.	P.	Full Account of the System of Frictions as adopted by J. Grosvenor Esq. of Oxford	Oxford	1825	R	51.76
Coulter, J.B.	P.O.T.	Physical Therapy	Chicago	1932	R	ii.16
Currie, J.	P.	Medical Report on the effects of water, cold & warm	London	1798	V	50
Cullen, W.	G.	First Lines in the Practice of Physic.	Edinburgh	1786	V	52
D						
David, J.P.	P.	Dissertation sur les effets de mouvement et du repos dans les maladies chirurgicales	Paris	1779		50
Dax, G.	S.T.	L'Aphasie	Montpellier	1878	V	55
De Burgh, W.G.	H.	The Legacy of the Ancient World	Pelican London	1933	R	11.147
De Chauliac, G.	G.	Grande Chirurgie (1363) trans. L.Joubert	Lyons	1597	V	32
Denhardt	S.T.	Das Stottern eine Psychose	Leipzig	1862	V	86
Densing, A.	G.	Exercitationes physico-anatomicae de nutrimento animalium ultimo	Groningae	1661		31

Donders	Or.	The Pathogeny of the Squint	London	1864	V	70
"	Or.	The Anomalies of Accommodation & Refraction of the Eye (trans.W.D. Moore)	London	1864		70
Drabkin, I.E.	G.	Caelius Aurelianus on Acute Diseases	Chicago	1950	R	25.26. 27.28
Duchenne, G.	P.	De l'electrisation localisee	Paris	1855	V	46
Duffin	Or.	The New Operation for the Cure of Strabismus and Squinting	London	1840		55
E						
Edson, C.E.		Theodore Tronchin. Univ. of Colorado Studies		1909	R	74
Ehrenhoff, C.	G.	Medicina Gymnastica	London	1849	V	82
Esdaile, J.	G.	Mesmerism in India & its application to surgery & medicine	London	1896	V	44
Esquirol, J.	G.	Des maladies mentales consideres sous les rapports medical hygienique et medico-legal	Paris	1838		44
F						
Fechner, G.T.	P.	De variis invensitatem vis galvanicae metieridi methodis	Lipsoe	1835	V	43
Fillozet (& Cantonnet)						
Fletcher, J.M.	S.T.	Problems of Stuttering	London	1928	V	86
Floyer, Sir J.	P.	An Enquiry into the Right Use of Baths	London	1697	R	47
Freind, J.	H.	The History of Physick	London	1750	R	33
Freke, J.	P.	An essay to shew the cause of Electricity etc.	St.Barts London	1748	V	45
Freud, S.	G.	Psychopathology of Everyday Life.	N. York	1914	R	57
		Interpretation of Dreams	N. York	1933		57
Fuller, F.	G.	Medicina Gymnastica	London	1740	R	1.2.14. 15.21.37. 38.48.49.
G						
Galen, C.	P.O.T.	De Parvae Pilae Exercitio (ed. J. Marquardt)	Gustroviae	1879	V	2
" "	G.	De Sanitate Tuenda (trans. R.M. Green)	Illinois	1951	R	10.15.21.
Galileo	G.	Mathematical Discourses (trans. T. Watson)	London	1730	R	32
Galvani, L.	P.	De Viribus Electricitatis Animaleo in Motu Musculari	Bologna	1791	V	45
Garrison, F.H.	H.	History of Medicine	London	1929	R	10.17.18. 28.44

Georgii, C.A.	G.	Kinetic Jottings	London	1880	V	82
Giles, G.H.	Or.	Manual of Practical Orthoptics	London	1938	R	72,110
Glover, T.	H.	The Ancient World	Pelican, London	1948	R	13
Gray, H.	G.	Anatomy		1858	R	56-7
Grundy, F.	G.	Preventive Medicine & Public Health	Luton	1953	R	
Guthrie-Smith, O.F.	P.	Apparatus in Rehabilitation & Remedial Exercises	London	1949	R	27
Guts-Muths	P.R.G.	Turnbuch für die Söhne des Vaterlandes	Frankfurt	1817	V	50
H						
Hahn, S.	G.	Melancholia Hypochondriacae	Lugundi Batavorum	1689	V	47
Hall, Marshall	G.	On the Mutual Relations between Anatomy, Physiology, Pathology etc.			V	57
Hallaran, W.S.	O.T.	Enquiry into the causes of the extraordinary additions to the numbers of the insane	Cork	1810	V	53
" "	O.T.	Extended Observations on the Cure of Insanity	Cork	1810	V	53
Haworth & Macdonald	O.T.	Theory of Occupational Therapy	London	1946	R	61.104
Head, H.	S.T.	Aphasia & Kindred Disorders	London	1926	V	85
Helmholtz	Or.	The Description of the Ophthalmoscope. (trans. H. Shastid. Chicago 1916)	- Berlin	1856 1851	V	55
"	Or.	Handbuch der physiologischen Optik	London	1875	V	55
"	S.T.	The Sensations of Tone			V	55
Henoch, J.		Klinik der Unterleibs Krankheiten. (trans. J.Thomson)	London	1882	V	45
Hering	Or.	Die Lehre von binocularen Sehen	-	1868	V	71
Hippocrates	G.	De Dieta. (trans. J.Precope)	London	1952	R	15
"	G.	On Regimen in Acute Diseases. (Loeb trans.)	London	1923	R	15
"	G.	On Regimen in Acute Diseases.(trans. E.Kelly)	London	1923	R	15
"	G.	On Epidemics			R	16
Hoffman, F.	P.	Essays on the Nature & Properties of Waters. (trans. P.Shaw)	London	1731	R	47
Homer	G.	The Iliad (Loeb trans.)	London	1924/5	R	11
Huxley, A.	G.	Ends & Means	Oxford	1946	R	135.140.

J

Jackson (see Lyle)

Jahn, F.	P.R.G.	Die Deutsche Türnkunst zur Einrichtung der Türplatze	Berlin	1816	V	81
James, R.	G.	A General Account of Dr. James' Medicinal Dictionary		Undated	R	56
" "	G.	A Medicinal Dictionary	London	1743	R	1.11.14. 15.16.54.
James, W.	G.	Principles of Psychology	London	1890	R	57.143
" "	G.	Textbook of Psychology	London	1892	R	37
Javal	Or.	Manual de Strabisme	Paris	1896	V	70
Joseph, L.	G.	Gymnastics from the Middle Ages to the 18th century. (Ciba Symposia)	N.Jersey	1949	R	22.29.33. 34.36
Joubert, L.	P.R.G.	De gymnasius et generibus exercitationium ... et de balneis	Lyons	1581	V	35
Jung, C.	G.	Modern man in search of a soul.	N. York	1933	V	57
" "	G.	Studies in word association and interpretation of personality	N. York	1918	V	57

K

Kepler, J.	Or.	Dioptrice	Augsberg	1611	V	40
Kleen, E.A.G.	P.R.G.	Massage & Medical Gymnastics (trans. Dobbie)	London	1918	R	74.76.81
Klencke	S.T.	Der Heilung des Stotterns	Leipzig	1861	V	86
"		Taschenbuch für Badersende und Kingäste	Leipzig	1875		86
Köhler	G.	Mentality of Apes			V	58
Kopp, K.A.	G.	Pietro Paulo Vergero	Luzern	1893	R	34

L

Laertes, Diog.	G.	(Trans. A.D. Hicks)	London	1925	R	13.17
Landolt	Or.	The Refraction & Accomodation of the Eye & their Anomalies	Edinburgh	1886	V	71
"	Or.	Defective ocular movements & their disgnosis	London	1913	V	71
Largus Scribonus	P.	See Schonack			R	8
Latham, R.C.	G.	The Works of Thomas Sydenham	London	1850		37
Le Clerc, D.	H.	History of Physick (trans. Drake & Baden)	London	1699	R	iii.4. 10.12. 13.17
Leeuwenhoek	G.	Anatomia	Batavorum	1687	V	31
Leonard, F.E.	H.P.	Guide to the History of Physical Education. Revised G.B. Afflack)	Philadelphia	1947	R	ii.81

Lewis (& Maude)	G.	Professional People	London	1952	R	132
Leys M.D.R. (& R.J. Mitchell)	H.	A History of the English People	London	1950	R	3.42.75
Licht, S.	O.T.	(ed.) Occupational Therapy Source Book	Baltimore	1948	R	ii.53.54. 61.63.64. 65
Liebmann	S.T.	Vorlesungen uber Sprache-heilkunde	Berlin	1898	V	86
Liebrich, R.	Or.	Atlas d'ophthalmoscope		1870	V	71
Liepmann	S.T.	Motor Aphasia & Apraxia	Berlin	1913	V	85
Ligeros, K.	G.	How Ancient Healing Governs Modern Therapeutics	London	1877	R	10.11. 12.13
Lind, J.	G.	Treatises on Scurvy: on the Health of Seamen	Edinburgh	1753	R	43
Livingston, Sir R.	G.	The Future in Education	Cambridge	1942	R	
Londe, C.	P.R.G.	Gymnastique Medicale	Paris	1820	V	51
Lotze, R.H.	G.	Medicinsche Psychologie	Leipzig	1852	V	43
Ludwig	G.	Lehrbuch der Phylsiologie des Menschen	Leipzig	1887	V	57
Ling, P.H.	P.R.G.	Educational & Curative Exercises	London	1875	R	50
M						
Macdonald & Haworth	O.T.	Theory of Occupational Therapy	London	1946	R	61.104
Mackenzie, M.	S.T.	The Treatment of Hoarseness & Loss of Voice ... by galvanism	London	1863		85
" "		Diseases of the larynx	London	1871		85
" "		Essays on Throat Disorders	London	1893	R	85
" "		The use of the laryngescope	London	1865	R	85
Maclaren, A	P.R.G.	A System of Physical Education	Oxford	1869	R	81
Maddox, E.E. & M.C.	Or.	The Clinical Use of Prisms & the Decentering of Lenses	Bristol	1907	V	72
"	Or.	Tests & Studies of the Ocular Muscles	London	1889	V	72
Magendi	G.	Precis elementaire du physiologie	Paris	1825	V	57
"	G.	A Memoire on recent discoveries of the nervous sytem. Trans.	London	1828	V	57
Malphigi, M.	G.	Opera omnia	London	1686	V	31
Marat, J.P.	P.	Recherches physiques sur l'electricite	Paris	1782		45
" "		Notions elementaires d'optique et memoire sur l'electricite medicale	Paris	1784	V	45
Mercurialis, H.	G.	De Arte Gymnastica	Amsterlodam	1572	R	35

Mesmer, A.	G.	Memoire sur la decouverte du magnétisme animal	trans: London	1948		
Mettler, C.C.	H.	History of Medicine	Philadelphia	1947	R	ii.9.18. 19.20.22. 28
Mitchell, R.J. (& M.D.R. Leys)	H.					
Mitchell Weir	G.	Fat & Blood: an Essay on the Treatment of certain forms of Neurasthenia & Hysteria	Philadelphia	1900	V	75.76
Mill, J.	G.	Analysis of the phenomena of the human mind	London	1829	V	44
Monnier H.	O.T.	Behandlung von Nervenkranken und Psychopathen durch nützliche Maskelbeschäftigung specieller Berücksichtigungsinstitut. Erfuhrunger im "Beschäftigungsinstitut fur Nerven Kranke" (von A. Grohmann in Zurich)	Leipzig	1898	R	63
Monro, A.	G.	Observations on the structure & functions of the Nervous System	Edinburgh	1783	V	43
Monro, D.	G.	Diseases of the Army	London	1764	R	43
Müller, J.	G.	Physiologie des Gesichtsinnes		1826	V	43
N						
Nagelschmidt, K.	P.	Lehrbuch die Diathermie fur Artze und Studenten	Berlin	1926	V	75
O						
Oliver, W.	P.	A Practical Dissertation on Bath waters	London	1716	R	47
Oliver, W.	P.	A Practical Essay on the Use and Abuse of Warm Bathing in Gouty Cases	London	1751	R	47
Osterberg, Bergmann M.	P.R.G.	Gymnastic Tables without apparatus	London	1887	R	82
Oxford Dictionary	G.	Concise			R	
P						
Pare, A.	G.	Surgical Works (trans. T. Johnson)	London	1634	V	35
Parimand, H.	Or.	Le Strabisme et son Traitement		1899	V	71
Pavlov	G.	Conditioned Reflexes	London	1927	V	58
"		Conditioned Reflexes & Psychiatry			V	58
Perrault, C.	G.	Oeuvres diverses de physiques et de mechanique	Paris	c.1700	V	31
" "		Traite de la mechanique des Animaux	Paris	c.1700	V	31

Pindar	G.	Odes (Loeb trans.)	London	1915	R	10
Pinel, P.	G.O.T.	Medical & Philosophical Treatise on Mental Illness	Paris	1801	V	52
Plato	G.	De Republica (trans. B. Jowett)	Oxford	1938	R	14
"	G.	De Republica (trans. F.M. Cornford)	Oxford	1941	R	17
Pliny, C.(II)	G.	Naturall Historie. (trans. Philemon Holland)	London	1601	R	7.17.18
Plutarch	G.	Lives (Loeb trans.)	London	1919	R	20
Pott, P.	G.	Observations on the Nature & Consequences of those Injuries to which the Head is liable; on Fractures & Violence, to which are added some few General Remarks on Fractures & Dislocations	St.Barts London	1768	R	43
Priessnitz. V.	P.	The Cold Water Cure, its Principles, Theory & Practice.	London	1842	V	50
Pringle, Sir J.	G.	Nature & cure of hospital and jungle fevers, and Preserving Health of Mariners	R.Society	1796	R	43
R						
Ramazzini, B.	G.	On the Diseases of Artificers (trans. R. James)	London	1750	R	2.38.39.
" "	G.	De Morbis Artificium. (trans. W.Cave Wright)	Chicago	1940	R	37.38. 39.44
Reymond, E.du Bois	P.	On Animal Electricity (ed. H. Bence-Jones)	London	1852	R	46
Ross, Sir J.S.	G.	The National Health Service in Great Britain	London	1952	R	124
Russell, J. Iveson	O.T.	The Occupational Treatment of Mental Illness	London	1938	R	66
Roberts, Francon		The Cost of Health	London	1952	R	122
S						
Sanctorius Sanctorius	G.	De Statica Medicina (trans. J. Quincey)	London	1720	V	37
Sands, R.	H.G.	Advance to Social Medicine	London	1952	R	32.37. 123
Scheiner, C.	Or.	Oculus	London	1652	V	40
Schonack, W.	P.	Die Rezepte des Scribonus Largus	Jena	1913	R	8
Schweigger, C.	Or.	Clinical Investigation of the Squint (trans. R.J. Robinson. ed.G.Hartridge)	London	1887	V	71
Seculus Diodorus	G.	(Loeb trans.)	London	1935	V	10
Seltzman, C.	G.	The Twelve Olympians	London	1952	R	11

Shaw, J.	P.G.	The Nature & Treatment of Distortions of the Spine	London	1823	R	iii.51. 76
Shryrock, R.H.	H.	The Development of Modern Medicine	London	1948	R	29.44
Sigerist, H.E.	H.	Man & Medicine	London	1932	R	162
Sinclair, Sir J.	G.	Code of Health & Longevity	London	1816	R	14.37.51
" "	G.	A Collection of Papers on the subject of Athletic Exercises	London	1806	R	51
Singer, C.	H.	A Short History of Medicine	Oxford	1944	R	23.30.31. 44.71
" "	"	" " " " Science	"	1941	R	iii.19.
Smith, C.Woodham	G.	Florence Nightingale	London	1950	R.	59.60
Spackman (& Willard)	O.T.	Principles of Occupational Therapy	Phila. & London	1947	R	65
Spearman	G.	Nature of Intelligence & the Principle of Cognition	London	1923	V	58
Speiss, A.	P.R.G.	Volksturnbuch Im Sinne von Jahn		1863	V	81
Stapelton, O.	G.	Philosophy & Living	Pelican		R	
Stern, B.J.	H.	Society & Medical Progress	Oxford	1941	R	9
Strother, E.	G.	An Essay on Sickness & Health	London	1725	R	3.4.15. 16.47.48.
Stubbs, B. (& Bligh)	H.	Sixty Centuries of Health & Physick	London	1931	R	24.29
Swammerdam, J.	G.	Historica Insectorum	Leyden	1737-8	V	31
T						
Taylor, J. (of Edin.)	Or.	An Account of 243 Different Diseases to which the Eye & its Coverings are exposed	Edin.	1759	V	54
Taylor, J. (Chevalier)	Or.	History of the Travels & Adventures of Chevalier J. Taylor	Dublin	1761	R	54
Thackrah, C.T.	G.	The Effects of the Principal Arts, Trades & Professions & of Civic Status & Habits of Living on Health & Longevity	Leeds	1831	R	36
Thompson	G.	Factorial Analysis of Human Ability				58
Thorndike, L.	H.	A History of Magic & Experimental Science	N.York	1929	R	9
Thorndike, E.L.	G.	Animal Intelligence.	London	1911	V	58
		Psychology of Learning.			V	58
		Adult Learning	London		V	58
Tissot, C.J.	G.	Avis au Peuple (trans. J. Kirkpatrick)	London	1765	R	49
" "	P.R.G.	Gymnastique medico-chirurgicale	Paris	1870	V	74
Tuke Hack	O.T.	Manual of Psychological Medicine	York	1879	R	62.106

V

Valentinus, P.P.	G.	The Flowers of Celsus	London	1612	R	
Vegius, M.	G.	De Educatione Liberorum	-	1523	V	34
Vesalius, A.	G.	Epitome anatomica	Amsterdam	1633	V	31
Vigue, A.	O.T.	De la valeur therapeutique du travail musculaire ... tuberculaise pulmonaire		1915	R	65
Virchow, R.	G.	The Cranial Affinities of Man & the Ape (trans.)	London	1871	V	44
Volta, A.	P.	Works of	Firenze	1816	V	45
Von Graefe, A.	Or.	Motilitats Storängen. Sight & the Visual Organ	Berlin	1871	V	70
Von Haller, A.	G.	Disputationem Anatomicarum (ed. A. Halver)	Gottingae	1750	V	43
Von Liebig, J.	G.	Animal Chemistry or Organic Chemistry (ed. & trans. W. Gregory)	London	1842	V	43

W

Ward, B.	G.	Policy for the West	Penguin Special London	1951	R	
Watson, E.	G.	The Life of Sir Robert Jones	London	1934	R	66.74
Watson, J.	G.	Psychology from the standpoint of a Behaviourist			V	58
Wernicke	S.T.	The Symptom Complex of Aphasia (trans.)	N. York	1910	V	85
Wesley, J.	G.&P.	Primitive Physick	Bristol	1760	R	45
Wheatstone, Sir C.	Or.	Contributions to the Physiology of Vision	Philosophical Transactions London	1838		54.70
Wicksteed, J.	P.	The Growth of a Profession	London	1948	R	77
Wilson, P.A. (see Carr-Saunders)	G.	An Introduction to Psychology			V	38
Willard (& Spackmann)	O.T.	Principles of Occupational Therapy	Phila. & London	1947	R	65
Winternitz, W.	P.	Zur Behandlung des typhösen Fiebers	Wien und Leipzig	1883	V	50
Withington, E.T.	H.	Medical History from Earliest Times	London	1894	R	9.18
Wootton, B.	G.	Testament for Social Service	London	1950	R	
Woodworth, R.S.	G.	Contemporary Schools of Psychology	London	1949	R	58
" "	G.	Dynamic Psychology	N. York	1925	V	58
Worth, C.	Or.	Squint, its Pathology	London	1903	V	71
Wundt, W.	G.	Lectures on Human & Animal Psychology (trans. Creighton & Tichener)	London	1894	V	43

Wyllie, T.	S.T.	The disorders of Speech	Edinburgh	1894		85
		Observations on the Physiology of the Larynx			V	85
Y						
Young, T.	Or.	On the Mechanism of the Eye	London	1801	V	51
Younghusband, E.		Reports on the Employment & Training of Social Workers.	Dunfermline			
		United Kingdom Trust		1949		12.15
				1951		15 App.10.

JOURNALS, REPORTS, PROSPECTUSES etc. to which reference has been made

Almoner	L. Farrer Brown Professionalism in the Health Service	April 1953	92,123-5. 139,140-3.
American Journal of Insanity	See quotations from S. Licht	—	61.62-3.
British Medical Journal	F.A. Crew Medicine & Social Policy	25.7.53	121.130
	Sir A. Daley The Place of the Hospital in the National Health Service	25.7.53	128
	Lt.Col.S.M.K. Mallick Medicine: Technology or a Profession	29.8.53	136
	Sir Lionel Whitby Presidential Address. First World Conference on Med: Education.	29.8.53	34
	Re Medical Auxiliaries & National Registration	21,4,51 1.8.53 28.3.53 6.2.54	7 10 93 93
British Orthoptic Journal	J.H. Austin The History of Orthoptics	Vol.4.1947	71
	R.D. Weedon Butler The Relation between the Opthalmic Surgeon & the Orthoptist	Vol.4.1947	109
Canadian Medical Assoc: Journal	A. Zinovieff The Relationship of Physiotherapy to Occupational Therapy in Rehabilitation	68/1953	111
Daily Telegraph	Re Health Centres to be provided by the Nuffield Provincial Hospitals Trust	7.5.54	127
Journal of the Chartered Society of Massage & Medical Gymnastics*	F.D. Howitt The Unity of Physiotherapy and Official Notices. Proceedings of Council: Re Occupational Therapy	Jan.1939 " "	68 69
Journal International de Phonatrie	Van Thal	Vol.2.No.3 1950	88
The Lancet	Sir Russell Brain The Need for a Philosophy of Medicine	16.5.53	100.147.32.
	J.H.F. Brotherston Speech at the An. Conference of the British Sociological Association	4.4.53	123
	E. Casson Forty Cases Treated at Allen dale Curative Workshops	1.11.41	67
	W.C.S. Copeman Re Medical Auxiliaries	10.1.53	132

* Now the Chartered Society of Physiotherapy

The Lancet contd.	M.E.M. Herford Re Occupational Therapy (corr:)	30.12.50	106
	Marriott Re 'mere auxiliaries'		91
	C.C. Mettler - quotes The Medicine of the Babylonians & Assyrians	1913	9
	J.N. Norris (Director of the Med: Research Council's Soc.Med.Unit) - re National Health Service	4.4.53	144
	Sir Sidney Smith Speech at Univ. of Edinburgh Graduation Ceremony	5.9.53	1
	Sir Geoffrey Vickers The Siege Economy & the Welfare State of Mind	27.12.52	141.59
	Prof. Vines Speech at Ann. Conference of Hospital Administrators	16.5.53	126
	Prof. M.F.A. Woodruff Inaugural Lecture in the Chair of Surgery - Univ. of Otago Medical School	12.12.53	31
	Re - Medical Auxiliaries	30.1.54	93
	Re - National Health Services	23,5,53	122
	Re - Scotland's First Health Centre	23.5.53	127
	Re - Whitley Council	30.5.53	139
Listener	A. Comfort Social Responsibility in Science & Art	29.11.51	94
	T.C. Thomas Expulsion from Trade Unions: Law in Active Service	4.3.54	140
	H. Tracy Social Aspects of S. African Music	24.9.53	102
	Sir Douglas Veale Ends & Means (Talk on Conference of Heads of Commonwealth Universities)	6.8.53	28
Nursing Mirror	Sir F. Messer in Report on First Public Discussion of the Nuffield Trust's Joint Analysis in Training	17.4.53	134
	T. Wareham The Nurse in Relation to the Physiotherapy Department	28.8.53	112.114
	Re - The Right Use of Nursing Power	29.5.53	129
	Re - W.H.O. Working Conference on Nursing Education (1953)	15.5.53	10-11
	Re - Training of Student & Pupil Asst. Nurses	3.7.53	53

Speech (The Journal of the College of Speech Therapists)	Van Thal A Short History of Speech Therapy	Vol.ix.No. Sept. 1945	86

Annual Report of the Ministry of Health for the year ended Dec. 1953. Part I. 1. The National Health Service 2. Welfare, Food & drugs, Civil Defence	Nov.1954	127.App.31.
Annual Report of the Ministry of Labour & National Service for 1952	July 1953	
Hansard		122.141.
Report of the Committees of Medical Auxiliaries	April 1952	4.89.91.100. 127.132.10. 48.
Report of the Interdepartmental Committee on the statutory Registration of Opticians	April 1952	App.5.90.
Report on the W.H.O. Working Conference on Nursing Education. Geneva Tech. Report No.60	1953	10.11
Memo: of Evidence submitted to the Govt. Committee for the Rehabilitation of the Disabled - by Sir Geoffrey Peto	4.8.53	128
Memo: of Evidence submitted - etc. by the Association of Occupational Therapists	Sept. 1953	128
Reports of Speech Therapy Conferences	1945 1948	116 116.117.118. 120.124.
Reports on the Employment & Training of Social Workers - United Kingdom Trust	1949 1951	12.15 15.App.10.
Choice of Careers. Leaflets issued by the Central Youth Employment Executive - Pub. by H.M. Stat. Office		
(No.53) The Occupational Therapist	March 1954	App. 3c.
(No.52) The Physiotherapist	June 1954	
(No.51) The Speech Therapist	Jan. 1954	
(No.39) Social Work	May 1933	App.10.
Training for Social Work. C. Leubescher. Nuffield College	London 1946	17.18.
Notes on the Syllabus of Training in Exercises for the Examinations of the Chartered Society of Physiotherapy		113
Syllabus of the Chartered Society of Physiotherapy.	1948	111.
Careers. Leaflets issued by the Women's Employment Federation	1937/38 1938/39	68.72. 78.83.88.
The Possibilities of Occupational Therapy & the Functions of an Occupational Therapist	March 1950	103.
The Story of the Dorset House School of Occupational Therapy		67.69.
Orthoptics. A Prospectus issued by the British Orthoptic Society	May 1951	App. 3c.

Regulations & Syllabus University of Birmingham Faculty of Commerce & Social Service	1933/41	23. App.9.
Arts Prospectus University of Durham, & regulations for the B.A. in Social Studies, University of Durham	1952/53 1952/53	23
Arts Prospectus University of Leeds	1951/52	App.10.
The Calendar (University of London) London School of Economics	1953/54	App.10.
University of London. Inst. of Education Regulations & Syllabuses for the Teachers' Certificate Examination	1953/54	115.
Prospectus - School of Philosophy, Economics & Social Science - University of Nottingham		App.10.

I N D E X

(excluding all names given in Bibliography)

A

Abuses in practice 44.60.72.76.87.103.110.185.186.

Actino-therapy see Physiotherapy = electro-therapy.

Actius of Amida 25.

Administration - ors i.124.133.143.148.

Advisory Training Council 182.190.

Aesculapius 10.

After-care 152.

Almon/ers) ing) 138 fn. 178.181. Appendix 10.

Amblyo/pia 108.

scope 71.

Anatomy iii.6.14.17.19.24.25.29.30.31.32.33.40.42.56.76.77.115.162.170.

Aphasia 12.55.85.

Aphonia 22.85.

Apollo 10.12.

Archimèdes 18.

Aretaeus of Cappodocia 70.116.

Armed Services 115.

Arthritis 10.

Artificial limbs 35.

Asclepiades 18.

Assessment 101.104.107.109.

Astronomy 10.

Avicenna 29.34.

B

Bar-reading 70.109.

Basic course/s v.69.73.100.135.146.149.154.157.159.161 et.seq. 165.167.171.173.177.179.183.200.202.

Bentham J. 44.

Binocular vision 55.71.107.

Biology 57.199.

Body & mind) soul) link 2.11.21.22.32.39.43.45.48.55.147.151.152.

Branting 81.

Bristol 67.69.

Bromsgrove 69.

C

Caelius Aurelianus 25

Central Health Services Council 137.138.

Certificate Course in Socio-Medical Studies 168 et seq. 174.183.

Chadwick: Edwin 44.

Chemistry 43.199 & Appendix.

Chiron: Cheiron 10.

Chiropody Appendix 10.

Church influence 23.150

Clinical teaching)
training) 25.158.170.185.187.
work)

Consultative Machinery 131.133. (And see Whitley Councils)

Convergence insufficiencies 108.

"Cope" Committees 90.91.

Reports 90.91.92.136.158.193.

Curative Workshops 66.67.

D

Dentistry 25.132.

Descartes 36.

Diagnosis 35.101.106.107.

Diathermy 75.

Diet/itians i.13.18.34.38.138 fn. Appendix 10.

"Dilution" 125.132.192.193 et seq.

Diplopia 108.

Diploscope 71.

Disabled Persons Employment Corporation 128. Appendix 11.

Disablement Resettlement Officer 129. Appendix 11.

Disease/s & Disorders 1.5.9.14.19.37.41.48.49.57.

Dissection and/or Demonstration 6.14.17.18.24.25.29.30.31.

Diversion/distraction 2.11.34.39.96.104.

Drugs 12.

Duchenne G. 46.

E

Economic considerations - see Finance.

Educat/ion)
ors) 32.33.36.61.97.181.

authorities 87.157.158.

school clinics 107.117.118.

of public 130.

Egypt 6.7.10.

Electricity iii.2.7.30.33.45.46.74.

E (contd.)
Electrotherapy see Physiotherapy.
Elocution 22.86-8.
Empiricism 2.16.29.150.
Emergency Medical Service 67.84.
Endocrinology 57.
Entry requirements for professions } 199 et seq.
Epidaurus 12.
Euclid 18.
Eudoxus 17.
Evans. Sir Lovatt 7.
Exact enquiry 13.29.
Examinations see Medical and Professional.
Exercises (and see Physiotherapy and Treatment - active)
athletic 4.51.
breathing 35.
contra-indication fn.16.
educational 4.82.
eye see Orthoptics.
general 2.11.14.17.21.34.35.36.38.39.41.52.61.114.
gymnastic 4.10-14.17.18.28.29.35.50.51.60.
medicinal 4.50.52.81.
military 4.35.81.
occupational see occupational exercises.
remedial 4.17.22.27.33.80.82.83.114.
system of 16.81.
Experiments 21.23.24.29.30.33.43.58.64.95.145.
Eye defects diseases } 16.54.

F
Faraday 46.
Federation 146.147.149.153.154.179.181.182.186.188.189 et seq. 202.
Fees 143.156.157.163.
Finances (& see economic considerations) } 53.58.105.122.123.125.126.129.131.137 141 fn. 143. 145.145.148.156.157.159.163.168.173.175.187.195.200.
Fry, Elizabeth 44.
Fusion theory 70.71.
tubes 71.

G

General Medical Council 92.

General Nursing Council 92.

Geographical distribution of personnel 165.

Geriatrics 29.36.47.51.58.

Gheel 50.

Gorgias - the Rhetorician 13.

Grants - teaching 144.173.
training 143.156.

Greeks ii.1.4.6.16.23.34.49.

Gymnastics - see Exercises & Physiotherapy.

H

Habits - development of etc. 48.101.117.152.

Health

centres 127

conditions 153.

preserving 15.19.49.52.

problems 154.

promoting 13.48.49.130.

public 57.

services/system (& see Nat:Health Service) 1.102.121.127-31.133.141.
148-9.

Health or Hospital Aides 196 et.seq. 200.

Heliotherapy see Physiotherapy: Electrotherapy.

Hephaistos 11.

Hero 18.

Herodicus or Prodicus 13.14.

Heterophoria 108.

Hill, Octavia 42.

Hippocratic Collection 14.

Histology 57.

Hospitals 43.45.46.50.61.63.73.86.90.96.97.100.105.117.126.127.128.129.
138.139.156.158.159.186.

"Houseman" Year 161 fn. 163.164.167.168.174.177.178.181.187.

Hydrotherapy see Physiotherapy

Hypnotism 44.

I

Industrial Revolution 42.

In-service training 157 & Appendix 8.

Institute of Supplementary Treatment Services 179.181 et seq.

Intelligence tests 58.197.

J

Joint Consultative Staff Committees 138.139.

K

Kant 43.
Kinesiology 81.
Kingsley 42.

L

Laryngoscope 57.85.
Lenses - spectacles 29.40.71.
Leverage 18.
Licence to practice 24.25.77.
Local Authority
Health Services 128.139.
Logic 24.
Loyalty of employees 125.
of employers 125.199.

M

Magic 7.9.13.150.
"Manpower" 122.123.131.132.143.175.193.
Massage see Physiotherapy.
Mathematics iii.7.18.32.33.
Mechani/cs /sation (& of movement) iii.2.7.18.22.31.32-5.42.45.50.82.115.169.
Medea 11.
Medical auxiliaries 90.
books / publications / treatises 19.24.25.31.42.57.
dictionaries 32.
discoveries - (& those allied) 13.30.31.32.37.40.42.43.44.45.46.57. 58.95.
examinations 24.25.
profession - doctors / physicians iii.13.17.18.23.24.29.32.35.38.39.50.61.62. 64.71.77.86.87.92.95.98.100.105.108.109.121. 124.131.132.133.136.137.138.
qualification 25
registration 25
science iii
statistics 32.
students 30.
training (& schools) 18.24.25.30.36.83.157.159.164.
treatment 13.24.42.

M (contd.)
Medicine ii.iii.6.
clinical 37.
gymnastic 14.
modern 44.
physical 36.68.
preventive 31.38.43.57.
psychological 44.
psychosomatic 32.43.44.47.
Melampus 10.
Mendel 43.
Mental illness / hospitals / treatment ii.11.18.19.28.32.35.44.52.53.54.60.61.62.66.67.96.100. 127.130.
Mental interest (in treatment) 2.33.35.45.46.47.52.63.74.109.
Metabolism 37.57.
Minister of Health 90.93.122.136.138.158.
Ministry of Health 67.69.85.128.156.
Ministry of Health Working Party 93.136.
Ministry of Labour 128.139.

N
National Health Service i.92.116.121.122.124.126.134.136.138.156.
National Health Service Act (1948) i.62.70.79.80.89.90.92.93.
"Natural" therapy 12.
Negotiating machinery 136.
Neurolog/ic /ist /y 12.25.35.57.86.162.
Nightingale F. 42.59.60.
Nurs/es /ing 25.59.61.63.64.76.77.82.95.96.127.129.132.136.137.138.157.159. 164.195. and Appendix 10.
Nystagmus 16.

O
Occupational background of patient 39.151.
Occupational diseases & health 38. 36.
Occupational exercises etc. iii.4.22.33.34.37.49.65.
Ball games 15.19.35.36.
Bell-ringing 3.49.
Bowls 34.
Boxing 3.
Card games 36.
Carrying loads 35.36.41.

O Occupational exercises (contd.)
Climbing 34.35.
Crafts 11.23.
Dancing 3.
Digging 3.36.41.
Domestic training 32.
Drama and farces 10.53.
Fencing 81.
Fine arts 53.
Fishing 3.
Games - play 11.50.52.
Gardening 34.
Hammering 3.49.
Handling of Arms 19.
Handwork 32.
Horse-riding 3.15.21.35.37.38.41.45.49.51.65.
Hunting 3.7.10.19.21.34.39.41.
Hurling the spear 34.
Intellectual work 34.97.
Jumping 35.
Labour, or work, or toil 1.16.21.34.49.51.52.53.61.96.104.
Music 3.10.13.18.19.35.36.52.53.
Singing 3.10.13.36.51.
Violin playing 3.49.
Ploughing 3.41.
Pottery 3.11.39.
Putting the weight 34.
Reading 19.60
Rope-climbing 35.
Rowing 3.57.
Running 19.35.36.
Riding in carriages 35.37.48.
and see gestation 21
hanging beds 18.35.
rocking 19.
swinging 21.35.47.
Sailing 3.19.37.
Sawing & chopping wood 3.49.
Sculpture 11.
Sewing 3.49.
Shooting bows and arrows 34.
Sitting 49.

O Occupational therapy (contd.)
Speaking 51.
Spinning 52.
Straw-work 53.
Standing 48.49.
Sweeping 3.49.
Swimming 3.19.21.25.27.34.36.49.51.
Tennis 34.
Throwing darts 3.
discus 35.
stones 3.
Travelling 3.28.
Walking & ambling 3.19.27.34.35.36.48.49.
Weaving 3. 39.
Wrestling 15.35.
Working in gold 11.
Occupational Therapist 61.89.97.98 100.103.105.128.129.161.184.
Occupational Therapy (& see Curative Workshops) ii.1.4.14.52.54.59.60.61.64.65.96.97.102.103. 104.105.106.111.112.118.162.171.
associations of 68.70.
books on 66.
conferences on 67.70.
definition of 1.2.103.104.
evolution of 1.2.
fundamentals & exact service of 2.102.
in Canada, the U.S.A. and S.America 60.62.70.
in mental illness ii.18.20.35.62.66.70.
in physical illness 60.70.
methods & techniques of 9.62.102.
on the continent 63.
personnel of 61.63.
prescriptions for 2.3.18.104.105.
purpose & functions of 1.2.103.105.
schools & training 63.67.69.70. diagram facing p.156 - Appendix 3.
World Federation of 70.
Ophthalmic diseases 22.28.
Ophthalmolog/y ists) 3.12.40.54.70.71.109.
Ophthalmoscope 55.57.
Optics 22.29.40.54.55.
Oral Hygienist 132.
Oribasius 162.195.

O (contd.)

Orthoptic/s 35.40.47.54.70.71.72.90.95.96.97.107.110.118.
cosmetic effect of 109.
definition of 3.106.
exercises 3.16.22.26.28.35.39.40.41.54.70.72.107.109.
form of 3.107.
journal 73.
masks/occlusion 3.28.35.40.54.72.107.
practice of 12.
psychology introduced into 72.
society 73.
training-schools of 73. diagram facing p.156 & Appendix 3.
Orthoptists 89.98.100.107.109.161.184.
Orthoptoscope 72.

P

Pathology iii.6.7.12.43.57.77.169.
Patient as a client 142.152.
a person 14.35.47.72.95.102.103.104.105.108.109.116.151.
Patient's approach to 95.96.
earning 105.106.152.
relatives 109.119.
limitations 130.131.
Paul of Aegineta 29.
Petrarch 34.
Pharmac/ists critical) 12.136.137.138.
Philosophy 7.21.32.147.148.149.152.185.
Phonetics 87.
Physical disease - illness 60.
education) training) 32.81.83.84.98.114.
training instructors 115.
Physical medicine specialist 36.110.
Physical treatment 74.98.101.
Physics 43.199.
Physiology iii.6.14.17.24.25.30.31.33.40.42.43.54.55.57.76.115.162.169.170.
industrial 36.
Physiotherapist 69.84.89.100.129.161.184.
Physiotherapy ii.2.14.44.68.73.78.90.96.97.98.110.113.118.129.162.172.194.
abroad 75.
aims of 110.
associations & societies 73.76.77.78.79.83.114.

P (Physiotherapy contd.)
combined with Occ.Therapy 80.
definition of
electro therapy 3.7.8.30.33.45.46.75.76.77.111.
actino therapy 3.28.34.
helio therapy 75.
examinations 77.
exercises
for remedial - gymnastic - etc. see Exercises.
graded 25.26.51.
in slings) with pulleys) with weights) 27.
for the mentally ill 20.
hydrotherapy 3.47.50.75.112.
baths/bathing 3.9.10.11.12.15.18.19.22.25.27.33.36.38.39.40.46.47.49.50.52.75.
pumping 3.47.
in the British Isles 75.79.
in the Commonwealth 75.79.
International Congress 80.
journal 78.
manipulation 112.
massage iii.3.9.12.15.18.20.21.25.33.34.35-9.46-9.51.60.74-6.81.82.111.
brushing 48-9.
chafing 3.15.48.
friction 3.12.15.19.37.48.51.74.
in-unction 10.
rubbing 9.19.20.21.111.
sponging 48.
stroking 20.21.
unction 3.51.
Massage Corps 78.
Royal patronage 78.80.
teachers 77.78.
training & schools 69. diagram facing p.156 & Appendix 3.
traction 112.
wax treatment 26.112.
Piccolomini Cardinal 34.
Post graduate work 114.144.182.187.188.190.
Posture - positions 36.41.81.110.112.113.
Prescriptions 2.5.14.16.38.40.41.49.65.86.105.
Private enterprise & practice 145.156.190.

P. (contd.)

Proetus 11.

Profession/als i.56.

associations v.56.68.73.84.87.89.140-3.151.156.189.190.191.

conditions of service i.131.136.

ethics & code 89.100.140.141.151.191.

examinations 24.25.56.89.145.151.152.156.178.191.192.

finances 144.145. Appendix 3.

journals 73.78.

practice v.89.150.151.

pride 135.

problems v.123.

qualification 25.56.89.145.192.

registration & state registration (& licence to practise) 25.91.92.136.137.138.141.142.145.152.178.191.192. Appendix 5.

representation 131.134.138.139.

responsibility & leadership iv.25.89.93.134.140.141-3.146.150.152.156.176.178.

saleries 124.

sanctions 141.

schools 89.156.157.163.178.

spheres & status 136.166.

teachers 77.78.163.183.184.

techniques i.ii.iv.1.6.9.14.19.22.33.41.42.46.48.49.56.59.74.96.119.150.194.

trainees - recruits 140.142.143.158.175.193.

training courses iv.4.24.25.56.89.156 et seq. 185 et seq.

workers v.102.125.

Progress 23.30.153.

Psychiatr/ic ists y 53.57.64.76.86.169.

Psychiatric Social Workers Appendix 10.

Psychological treatment 18.52.58.98.101.109.

Psychology iii.7.12.14.29.32.33.43.44.47.54.57.68.72.98.99.162.

Psychopathology 57.98.169.

Psychoses 53.86.

Psychotherapy 18.

Pythagoras 13.

Q

Quelmatz. S. 45.

R

Radiograph/y ers) 138 Fn. Appendix 10.

Radiology Appendix 10.

Re-adaptation adjustment orientation) i.1.90.147.148.149.151.154.155.178.

Recreations 1.34.60.61.96.104.

Recruitment iv.154.155.198 et seq.

Re-establishment 102.106.152.

Regional Boards 139.

Rehabilitation iv.11.39.64.94.100.115.127.128.129.130.139.152.

Relaxation 111.173.

Remedial Gymnastics 2.4.14.27.77.80.90.96.97.110.112.113.

definition of 28.

for the mentally ill 20.

techniques of 9.

Remedial Gymnasts 84.85.89.98.100.114.161.

association of 84.115.

training & school of 4.84.114.115. & Appendix 3.

Remploy factories 128.

Research 42.144.

Respiration 32.35.42.

Rhazes 34.

Rome 18.24.

Royal College of Physicians 46.

Rhythm 31.36.

S

Science - scientific iii.4.6.7.9.11.12.13.17.18.23.25.29.31.32.36.41.42.44.50.70.81.129.

medical iii.

Secretary of State for Scotland 90.93.136.158.

Selection of personnel iv.142.154.155.200 et seq.

Separation of services 153.154.

Shaftesbury, Lord 42.44.

Sight 55.

Situation Approach 159.

Skills iv.6.29.91.95.108.113.129.132.137.146.150.152.154.156.185.194.

Social background of patients 14.39.151.

conditions 44.

problems 42.58.116.118.

reformers 44.

sciences 131.

S. (Social contd.)

services 94.131.137.156.

studies departments) / courses) 164.165.170.171.

subjects 58.

Socio-medical Studies Department 95-7.165.

Southwood Smith 44.

Specialis/ation) / ist) i.iv.33.52.58.71.91.115.133.135.136.137.146.150.152.156. 188.

Speech 4.22.55.85.116.

Speech defects) / disturbances) 4.5.16.55.85.86.87.88.116.

Speech Therapists 86.87.88.89.98.100.161.195.

Speech Therapy 5.20.26.28.40.47.55.85.86.88.92.95.96.

association: society: college 87.

clinics of 86.

conferences 89.

definition of 4.

for the mentally ill 20.

function of 5.

in the British Isles & Commonwealth 85.89.

practice of 12.

on the Continent 85.

training in and schools of 87.

Standing Advisory Committees 137.138.

State Registration 91.92,93.152. Appendix 5.

Stammering 117.

Stethoscope 57.

Stereoscope 54.70.71.

Strabismus: squinting 16.25.28.54.55.70.71.72.

Stuttering 37.41.86.

Subsidies 157.

Supplementary Medical Treatment Services i.ii.iii.iv.1.6.42.44.45.55.58.
(& see professions) 68.89.99.109.117.121-3.128.129.130-2.135.137. 139.150-2.155.171.182.189.

aims of iv.94.100.

apparatus for 97.

cohesion in i.

common considerations of i.134.145-151.167.

combined use of 20.

co-operation & collaboration between i.v.68.69.97.123-125.134.135. 136.145-9.203.

co-ordination of i.iv.92.137.138.153.155.

development of ii.iii.iv.6.30.56.90.

S. (Sup.Med.Treatment Service contd.)
differences & distinctions between i.ii.iii.iv.56.91.95.et seq. 146-150.
evolution of i.ii.iv.6.90.
expertness in iv.
framework for ii.iii.6.8.33.150.
functions of (exact service of) iv.126.134.
future plans for
independence & separation of i.iv.2.
integration of i.98.134.
inter-relationship or links between ii.iv.v.2.4.94.100.150-153.
limitations 110.
numbers in (ratios) 127.
techniques of see Professional technique
Surgery 24.32.43.49.56.71.

T
Thales 13.
Trade Union/s 140
Treatment
active 3.14.16.18.25.26.47.49.51.52.74.79.103.107.110.111.113.125.151.
considerationa & aims of 95.105.151.
indirect application of 20.
in "closed" periods 129.
in the home 126.127.128.145.
leader of tr. team 100.122.152.
methods of 151.
out patient 126-9.145.
passive 22.34.47.49.51.74.110.151.
planned 105.
scientific 4.
specialised/expert 5.54.
(& see specialisation)
team 97.100.151.
techniques ii.25.95.
temples 10.
unevenness of 98.

U
Understanding (improved) 121.123.124.134.136.148.152.
Universities 179.
European 24.25.

U.(Universities contd.)
departments in 63.
functions of 166.167.
students 82.162.174.
under aegis of 161.164.165.170.179.182.

V

Vinci Leonardo da 36.
Vision 54
charts 71.
Vocabulary 152.160
Vocal chords 55.
Vocational training work 64.103.166.167.
Voice 22.40.86.
exercises 35.
production 173.
Volition - (patient effort) 22.27.29.48.49.72.79.111.113.
Voluntary work 143.

W

War - effects of 1.4.6.7.16.17.32.55.58.60.62.66.67.73.78.79.83.84.85.87.
88.108.118.151.
War Office 67.69.
Wax treatment see Physiotherapy.
Weber Brothers 43.
Whitley Functional Councils 137.138.191.
Working Party see Ministry of Health.
World Health Charter Organization 80.130.159.

X ------

Y ------

Z

Zander 74.

GROUP I

DRAFT SYLLABUS FOR ANATOMY AND PHYSIOLOGY

Notes from Dr. H.D. Darcus on the above.

The proposed syllabus had been drawn up by myself with the help of Dr. Buller. Many other people with an active interest in the teaching and practice of Occupational Therapy have given valuable advice, and in the majority of instances their suggestions have been incorporated.

This syllabus has been agreed in the main by the sub-committee of the Syllabus Revision Committee, on behalf of the Association of Occupational Therapists, but I have expressed the wish that, as it will be in existence for a number of years, further advice be obtained before completing the final draft.

The two main difficulties in preparing the syllabus have been to decide what the student should be taught and to indicate this as precisely as possible in the syllabus. This is accentuated by the fact that, to the best of my knowledge, no text book has been written catering for the needs of the student of Occupational Therapy. To fill this gap, and also to specify as far as possible the detail required, it is proposed to insert beside the various sub-sections references to pages in a limited number of current textbooks, such as Hollinshead's 'Functional Anatomy of the Limbs and Back' and Best and Taylor's 'Living Body'. It has been suggested that the units of time given to any one sub-section* should be given and that the different parts of the syllabus should be printed in different type to show the relative importance attached to the different topics.

Any suggestions concerning the substance of the syllabus, the order of presentation, suitable textbooks, etc., would be greatly appreciated.

* One suggestion on these is:-

Bone	5%	Head)	
		Neck)	
Joints	10%	Abdomen)	10%
		Pelvis)	
Muscle	10%		
		Lower Limb	10%
C.N.S.	10%		
		Upper Limb	20%
Circ. and Respiration	5%		
		Physiology	20%

ASSOCIATION OF OCCUPATIONAL THERAPISTS

UNEDITED DRAFT OF REVISED SYLLABUS OF TRAINING*

RECOMMENDED PLAN

For reference the subjects recommended for study are divided under three headings:-

GROUP I. * ANATOMY AND PHYSIOLOGY ..... TWO 3 hour papers
PSYCHOLOGY OF PERSONALITY AND HUMAN RELATIONS ..... ONE 3 hour paper

GROUP II. * GENERAL MEDICINE AND SURGERY INCLUDING ORTHOPAEDICS ..... TWO 3 hour papers
* PSYCHIATRY ..... TWO 3 hour papers

GROUP III. OCCUPATIONS AND TECHNIQUES
See Section of Occupations and Techniques.

GROUP IV. THEORY AND PRACTICE OF OCCUPATIONAL THERAPY
(i) MENTAL AND NERVOUS ILLNESS ... ONE 3 hour paper
(ii) PHYSICAL DISABILITIES ..... ONE 3 hour paper
(iii) INDUSTRIAL AND SOCIAL RESETTLEMENT ..... ONE 3 hour paper
(iv) ADMINISTRATION OF AN OCCUPATIONAL THERAPY DEPARTMENT ..... ONE 3 hour paper

. . . . . .

It is recommended that the examination for the Diploma of the Association be taken in at least two stages with the following provisos:-

GROUP I shall be completed before GROUP III is taken.
Any subject failed in Group I may be retaken with Group II

GROUP II may be taken any time after Group I has been taken.
Any subject failed in Group II may be retaken with Group III.

SUBJECTS MAY BE TAKEN AT THE FOLLOWING INTERVALS IN TRAINING

GROUP I 15, 21, or 27 months after the commencement of training.

GROUP II may be taken any time after Group I has been taken.

GROUPS III & IV must be taken on completion of training, i.e. usually 33 months after the commencement of training.

. . . . . .

* Two 3 hour papers will be set in these subjects but the results in the subject will be assessed on the aggregate. The candidate will, therefore, pass or fail in the subject as a whole.

* This syllabus will come into operation in September 1954.

GROUP I

DRAFT SYLLABUS FOR ANATOMY AND PHYSIOLOGY

Notes from Dr. H.D. Darcus on the above.

The proposed syllabus had been drawn up by myself with the help of Dr. Buller. Many other people with an active interest in the teaching and practice of Occupational Therapy have given valuable advice, and in the majority of instances their suggestions have been incorporated.

This syllabus has been agreed in the main by the sub-committee of the Syllabus Revision Committee, on behalf of the Asscciation of Occupational Therapists, but I have expressed the wish that, as it will be in existence for a number of years, further advice be obtained before completing the final draft.

The two main difficulties in preparing the syllabus have been to decide what the student should be taught and to indicate this as precisely as possible in the syllabus. This is accentuated by the fact that, to the best of my knowledge, no text book has been written catering for the needs of the student of Occupational Therapy. To fill this gap, and also to specify as far as possible the detail required, it is proposed to insert beside the various sub-sections references to pages in a limited number of current textbooks, such as Hollinshead's 'Functional Anatomy of the Limbs and Back' and Best and Taylor's 'Living Body'. It has been suggested that the units of time given to any one sub-section* should be given and that the different parts of the syllabus should be printed in different type to show the relative importance attached to the different topics.

Any suggestions concerning the substance of the syllabus, the order of presentation, suitable textbooks, etc., would be greatly appreciated.

* One suggestion on these is:-

Bone	5%	Head)	
		Neck)	
Joints	10%	Abdomen)	10%
		Pelvis)	
Muscle	10%		
		Lower Limb	10%
C.N.S.	10%		
		Upper Limb	20%
Circ. and Respiration	5%		
		Physiology	20%

DRAFT SYLLABUS FOR ANATOMY AND PHYSIOLOGY

PREAMBLE

The syllabus is divided roughly into two parts. The first deals with the body systematically, with particular emphasis on the skeletal, muscular, nervous, circulatory and respiratory systems; parts of other systems are included where it is considered that they have an important bearing on these. The second part deals with the subject in an integrative manner. For this purpose the more detailed anatomy is studied in regions and the physiology is studied as the overall functioning of the body under different conditions. The space allotted in the syllabus does not necessarily indicate the detail expected to be known by the student. The level of knowledge required is indicated by references to various sources. These, however, are not to be taken as the only, or the best, sources.

It is recommended that, especially if the student has had no previous scientific training, the course should be preceded by a few general lectures on biology, that as far as possible demonstrations should be given to students and practical work undertaken by them to illustrate the subjects described in the lectures, and that the students should be encouraged to cover the rest of the anatomical and physiological field by supplementary reading.

SECTION A.

THE COMPOSITION AND PHYSIOLOGICAL PROPERTIES OF PROTOPLASM

The characteristics of the animal cell.
Cell multiplication and differentiation.
Occurence, structure and function of epithelia, connective tissue and cartilage.

BONE.

Functions.
General features of a long bone.
The macroscopic and microscopic structure and the physical and chemical properties.
The structure and function of the periosteum.
The structure and function of bone marrow.
General survey of the development and growth of bone and the influence of genetic, mechanical, dietetic and hormonal factors.
Brief outline of the repair of fractures.

JOINTS.

Classification - fibrous, cartilaginous and synovial (diarthrodial).
General features of a synovial joint.
Types of synovial joint.
General survey of the range and axes of joint movement.
The joint as a fulcrum - system of levers.

MUSCLES.

Histology and function of visceral, cardiac and skeletal muscle fibres.
Attachment of skeletal muscles - origin and insertion - reverse action - structure of tendons.
Arrangement of muscle fibres in relation to function - rectangular and pennate forms - fasciculi.
Functional relationship of muscles - prime movers (agonists), antagonists, synergists, fixators - influence of gravity.
Synovial sheaths and bursae.
Sesamoid bones.

MUSCLES (Cont.)

Chemical changes accompanying muscular contraction - essential steps in breakdown of glycogen - anaerobic and aerobic phases - oxygen debt - steady state.
Cori cycle - control of blood sugar level - outline of carbo-hydrate metabolism - influence of insulin and adrenalin.
Heat production during muscular contraction.
Mechanical advantage and contractile force.
Types of muscular work - static, concentric and excentric.

NERVOUS SYSTEM

The neurone doctrine.
The structural and physiological properties of the nerve cell and the nerve fibre.
The nature of the nerve impulse - 'all or none' principle.
Nerve fibre terminations - exteroceptive and proprioceptive end organs (without structural details).
The innervation of muscle - the motor nerve - the motor point - the motor unit.
Electrical changes accompanying muscular contraction - electromyography.
Adjustment of speed and tension of muscular contraction.
Electrical stimulation of muscle.
Neuromuscular and synaptic transmission - the action of acetylcholine and calcium.
The structure of the reflex arc.
Outline of reflex activity as typified by the stretch, flexor and crossed extensor reflexes.
Inborn and acquired and conditional reflexes.

The general structure of the spinal cord and the main ascending and descending pathways.
Origin and composition of spinal nerves - nerve roots - posterior root ganglia.
Distribution of 'typical' spinal nerve (e.g. thoracic).
General consideration of limb plexuses and the formation of peripheral nerves.
The structure of a peripheral nerve.

General structure and function of the brain.
The exteroceptive and proprioceptive tracts, the thalamus and the sensory area of the cerebral cortex.
The motor area of the cerebral cortex and the pyramidal tracts.
The premotor area and the extra-pyramidal system including the cerebellum and the reticular inhibitory and excitatory systems.
The integrating function of the anterior horn cell - the final common pathway.
The prefrontal lobes of the cerebral cortex and the hypothalamus.
General disposition and function of the autonomic nervous system (sympathetic and parasympathetic) motor.
Chemical transmission of autonomic effects - the adrenal medulla.
The posterior lobe of the pituitary gland and its physiological relationship with the hypothalamus.
A general appreciation of the control of the internal environment by the autonomic nervous system and the endrocrines.

Nerve degeneration and regeneration.
Causes and results of loss of nervous conduction.
Denervation of muscle - paralysis, effect on posture and movement, compensatory and trick movements, electrical changes, response to electrical stimulation, structural changes.
Wallerian degeneration.
Regeneration of nerve.
Reinnervation of muscle.
Factors on which functional recovery of muscle depends.

Outline of the clinical examination of the nervous system.

CIRCULATORY SYSTEM.

General composition and functions of blood.
Coagulation of blood.
Reticulo-endothelial system - phagocytosis.

Essential structure of the heart and blood vessels - cardiac and venous valves - arterio-venous anastomoses.
General description of circulation of the blood; pulmonary, systemic and portal systems - general course of main vessels.
Innervation of the heart and blood vessels, the cardiac and vasomotor centres.
Events in the cardiac cycle - heart sounds.
Arterial blood pressure and the factors responsible for the maintenance of normal pressure.
Factors affecting the heart rate and stroke volume.
Mechanical and nervous control of the activity of the heart - Starling's law, Harvey's law, the carotid sinus and arotic reflexes, Bainbridge's reflex.
The influence of posture and exercise on the cardiac output - factors responsible for the venous return.
The control of blood vessels - nervous, chemical, thermal, mechanical - with particular emphasis on the blood supply to the brain, heart and skeletal muscles.

Capillary circulation.
Capillary permeability - the formation and absorption of tissue fluid.
Formation and circulation of lymph.
Water balance and the effect of sodium and the adrenal cortical hormones.
Oedema.

Clinical examination of the circulatory system.

RESPIRATORY SYSTEM.

General structure and function of the nose, larynx and trachea.
Structure of the lungs and pleural sacs.
The mechanics of respiration - the structure of the thoracic cage - thoracic vertebrae, ribs and sternum - intercostal and phrenic nerves.
Muscular activity in quiet, deep and forced respiration.
Sub-divisions of the lung air - tidal, complemental, reserve, residual.
Vital capacity.
Alveolar air and dead space air.
Diffusion processes.
Exchange of gases between alveolar air and the blood.
Gaseous exchanges in the tissues.
The respiratory functions of the blood.
Haemoglobin and the oxygen dissociation curve - factors affecting oxygen liberation.
The mechanism for transporting carbon dioxide in the blood and a general consideration of its significance in regard to p^H regulation.
Nervous and chemical control of the frequency and depth of respiration - afferent pathways and the respiratory centre - Hering-Brever reflex.

The oxygen requirements of the body at rest and during exercise.
The basal metabolic rate, its determination and the factors affecting it, in particular the influence of thyroxine.

The clinical examination of the respiratory system.
Tests of respiratory function.

SECTION B.

TOPOGRAPHICAL ANATOMY OF THE BACK AND LIMBS

Anatomical nomenclature.
The anatomical position and planes.

THE VERTEBRAL COLUMN

The general form of a vertebra - regional variations.
The structure and function of the intervertebral discs.
The main features of the articulated vertebral column - the curves and their development.
The main ligaments, in particular the ligamenta flava.
The sacrospinalis muscle (with no details of precise origin and insertion).
The joints of the vertebral column, including the atlanto-occipital and atlanto-axial.
The normal movements of the vertebral column, their range axes and regional variations.
Surface anatomy.

THE HEAD AND NECK.

The general form of the skull (with no details of bones or foramina).
General consideration of the extrinsic muscles of the eyeball and the muscles of mastication, facial expression and the tongue.
The sternomastoid.
General distribution of the oculomotor, trochlear, trigeminal, facial, spinal accessory and hypoglossal nerves.
General disposition of the pituitary, thyroid and parathyroid glands.

THE ABDOMEN AND PELVIS

The pelvic girdle.
The sacro-iliac joint and the pubic symphysis.
General consideration of the muscles of the anterior and posterior abdominal walls and the levator ani muscle.
The position and significance of the inguinal canal.

THE UPPER LIMB.

The formation of the brachial plexus (no details of exact pattern) and collateral and terminal motor nerves.
The scapula, clavical and humerus and associated joints.
Muscles acting on these joints with their nerve supply.
Associated movements between glenohumeral joint and scapula with abduction of the arm as an example.
The ulna and radius - interosseus membrane - the 'carrying angle'.
Elbow and radio-ulna joints.
Muscles acting on these joints with their nerve supply.
Functional relationship of these muscles in pronation, supination, flexion and extension.
Associated movements between gleno-humeral and radio-ulnar joints with elbow extended.
The bones of the articulated wrist and hand.
Joints of the wrist, thumb and fingers.
Muscles acting on these joints with their nerve supply (no details of the exact origin of long flexors and extensors of wrist, thumb and fingers).
The hand as a grasping organ.
The development of the 'cylinder' and 'ball' grip.
General consideration of the segmental innervation of the muscles of the upper limb.
Surface anatomy of the upper limb.
The effect of limb posture and movement of specific muscle paralysis and of cutting the upper trunk of the brachial plexus, the lower trunk of the brachial plexus, the circumflex, the radial, the ulnar and the median nerves.

THE LOWER LIMB

The formation of the lumbo-sacral plexus (no details of exact pattern) and its terminal branches - femoral, obturator, sciatic and inferior and superior gluteal nerves.
The femur.
The hip joint and the muscles acting on it (no details of small lateral rotators) with their nerve supply.
The tibia, fibula and patella.
The knee joint and the muscles acting on it with their nerve supply.
The bones of the articulated foot.
The ankle and the talo-calcaneo-navicular joints and the muscles acting on these joints (no details of origin except gastrocnemius) and their nerve supply.
Arches of the feet.
Function of the foot.
Comparison of structure and function of upper and lower limbs.
General consideration of the segmental innervation of the muscles.
The activity of the muscles of the lower limb on walking.
Surface anatomy of the lower limb.
The effect on posture and movement of specific muscle paralysis and of cutting the lateral and medial popliteal nerves.

PHYSIOLOGY

The changes that occur in response to exercise
The effects of prolonged muscular activity.
Muscle 'fatigue' and its causes.
The effect of muscle training on the strength, speed, skill and endurance of muscular activity and the factors concerned.

Body temperature and its regulation.
Heat balance and the heat controlling centre.
The skin.

The mechanics and physiological basis of the upright posture and of walking.
The centre of gravity of the body.
Equilibrium.
Postural sway.
Postural reflexes.
Postural 'tone'.
The vestibular apparatus.
Essential afferent information for maintaining the upright posture.
Factors effecting equilibrium.
The role of the cerebrum and the cerebellum.
The integration of the pyramidal and extra-pyramidal systems.
Co-ordination of muscular activity.

Tests of physical fitness.

Physiological methods of measuring the 'cost' of muscular work - circulatory indices, oxygen consumption, electrical activity of muscles.

Methods of measuring muscular strength.

Muscle atrophy and its causes. Methods used in the re-education of paretic muscles.

Types of exercise; assisted, free and resisted.

Methods of analysing body movements - specific and general e.g. walking, running, lifting and carrying.

The development of co-ordinated movement from birth to maturity.

GROUP I (Cont.)

DRAFT SYLLABUS FOR
THE PSYCHOLOGY OF PERSONALITY AND HUMAN RELATIONS

PREAMBLE

In the study of the general bearing of psychology upon the work of an occupational therapist the student is particularly concerned with the means by which the behaviour of human beings is influenced by other human beings, i.e. with the social inter-actions of patients one with another, with the therapist and with the larger community outside the hospital. Against this background it is necessary to consider the fundamentals of human motivation, the growth and development of persons from infancy, and the social, physical and emotional determinants of learning. It is not intended to prescribe the order in which topics are to be considered but the following is an outline of the content anticipated in a course.

I. GROWTH AND DEVELOPMENT, MATURITY AND DECLINE

The general sequence of development from infancy through childhood and adolescence to maturity and old age with special attention to the range of individual differences at each age and in all attributes, and to the continuity and variability of growth. This may usefully be discussed in relation to the four stages: early life, adolescence, adult status and old age.

(a) The effect of cultural background, chronological age, sex and educational opportunities upon normal development in childhood and adolescence.

(b) The meaning of maturity for the person as an individual and in social relationships. The growth of interests, attitudes and values.

(c) Intellectual changes in old age. Modifications of interests and attitudes.

(d) Special problems at each stage of growth.

II. GENERAL THEORIES OF BEHAVIOUR AND BASIC HYPOTHESES AS TO HUMAN MOTIVATION.

Differing interpretations can best be understood by some reference to their historical development.

(a) Cognitive and reasoning processes - perception, imagery and imagination, creative capacity. The advance from association and faculty psychology to the experimental study of abilities.

(b) The person as "body-mind" - a unity of spiritual, moral, social, intellectual and physical elements - and the inter-relation of these.

(c) Propensities, instinctual and emotional energies, sentiments.

(d) Emphasis on the importance of social and environmental factors, and recent concern with group tensions, attitudes and relationships in social psychology, and the satisfaction of psychological needs.

III. LEARNING AND TEACHING.

(a) Main types of learning:-

(i) Trial and error, rote learning, habit; behaviourist theories of "stimulus-response bond"; conditioning and reconditioning.

(ii) Meaningful learning: Gestalt theories of figure and ground, pattern, insight.

(b) Factors influencing learning:-
Incentives (Reward, Praise, etc.)
Physical conditions. Interest. Attentiveness.

(c) Remembering and Forgetting.

(d) Individual problems in relation to learning in children, adolescents, adults and older persons.

(e) Influences exerted by individuals upon groups.
Prestige and imitation. Instruction and suggestion.

(f) Teaching as the facilitation of learning with emphasis on the modification of techniques in relation to individual requirements of the young, the adult or the old.

IV. THE INDIVIDUAL AND THE GROUP

(a) The individual as a member of a group.

(b) Influences exerted upon individuals by groups such as the home, the school, the hospital, the occupational therapy group, the community.

(c) Human adaptability - variations of behaviour of the same individual in different social situations.

V. INFORMAL ASSESSMENT OF PERSONALITY AND THE ELEMENTS OF MENTAL MEASUREMENT.

Qualities of the individual to be taken into account:

Physical Constitution, Expressive Movements, Conduct, Temperament, Character, Emotional Development, Social attitudes and mental abilities.

VI. SOCIAL AND THERAPEUTIC RELATIONSHIPS

Behaviour problems encountered by Occupational Therapists in connection with hospitalisation and rehabilitation; vocational guidance and occupational and social readjustment in the case of adolescents, adults and old persons and emotional insecurity and loneliness in the case of children

GROUP II

DRAFT SYLLABUS FOR PSYCHIATRY

Shortened Syllabus in Psychiatry

The knowledge of this subject must be generalised and all common clinical syndromes studied. In view of the wide range of subject matter a very detailed knowledge is unnecessary and cannot be expected. Students will, therefore, be expected to show an understanding of the general features and natural progress of the syndromes rather than detailed psychopathology, signs and symptoms, and the main emphasis should be placed on the therapeutic aspects.

.....

DETAILED SYLLABUS FOR THE USE OF SCHOOLS, LECTURERS AND BONA FIDE STUDENTS

PREAMBLE

In these lectures it is desirable to lay the main emphasis on the dynamic principles involved in the genesis of the mental illness, stressing the concept of personality development and the deviation of this by the various aetiological factors into the different forms of mental illness. The various aspects and schools of thought require discussion and correlation as far as is possible, without undue stress being laid on any particular theory.

It is desirable that lectures should be accompanied as far as possible by the study of case histories and clinical demonstrations to illustrate the subjects being studied, accompanied by group discussion of the cases seen and a therapeutic formulation being made of each case. Students should keep records of the cases seen and to these should be added notes on patients met during hospital practice. They should have the opportunity of discussing these notes during the revision period.

I. THE CAUSES OF MENTAL ILLNESS

1. Physical

(a) Heredity - single and multiple genetic factors
dominant and recessive genes
mutation
twin studies

(b) Damage to germ plasm and embryo, caused by alcohol, syphilis, rubella, toxins and other infections, intrauterine trauma.
Birth injuries.

(c) General and focal infection and physical disease, including Cerebral vascular disorders.
Trauma. Malnutrition.

(d) Endocrinological changes associated with age, puberty, climacteric, senescence.

(e) Neuronic degeneration (senile and pre-senile conditions).

2. Mental

(a) Age and development factors.

(b) Social and environmental factors.

(c) Educational factors.

(d) Racial factors.

(e) Sex factors.

(f) Failures in adaptation to stress.

II. A general outline of abnormal psychology and the mental mechanisms, and a general knowledge of the signs and symptoms of mental illness incorporated in a study of disorders of the following:-

Consciousness
Sleep
Personality, including multiple personality
depersonalisation
de-realisation
deterioration of personality.
Behaviour
Speech
Emotion
Thinking
Thought content
Memory
Judgment
Orientation.

III. PRINCIPLES OF MENTAL HYGIENE

Eugenic programme - negative including segregation
sterilisation
contraception
positive including social measures
parental management and family life
marriage guidance
infant management and feeding
educational opportunities and adolescent phase
vocational guidance.

IV. PSYCHO-NEUROSES -

Ætiology, course and treatment of anxiety, obsessional, and hysterical states and psychosomatic syndromes.

V. PSYCHOSES -

Ætiology, cause and treatment of manic depressive states, involutional melancholia, schizophrenia and paranoid states.

VI. SENILE DEMENTIA -

Ætiology, social and medical aspects, cause and treatment.

VII. ORGANIC REACTION STATES -

General features of dementia, toxaemia, anoxaemia, cerebral vascular disorders, space-occupying lesions, degenerative conditions and head injuries. Infections including syphilis. Endocrine disorders. Morbid anatomy and pathology not required.

VIII. PSYCHOPATHIC PERSONALITY -

Delinquency, sex-aberrations, drug addiction and alcoholism.

Ætiology and treatment.

IX. EPILEPSY -

Ætiology, symptoms, varieties and treatment.

X. DISORDERS OF CHILDHOOD -

Ætiology and treatment of neuroses, psychoses and behaviour disorders.

XI. MENTAL DEFICIENCIES -

Types, ætiology, diagnoses and treatment

XII. A general knowledge of the principles of modern treatment including psycho-therapy, abreactive techniques, convulsive therapy, modified and deep insulin therapy, narcosis and sedation, leucotomy and hydrotherapy.

Attention should be drawn to the selection of patients for the various types of treatment and the necessity for co-ordinating these treatments and after-treatment.

XIII. A general knowledge of the laws and rules in relation to ad mission, discharge, control and protection of mental patients.

GROUP II (Cont.)

DRAFT SYLLABUS FOR

GENERAL MEDICINE AND SURGERY AND ORTHOPAEDICS

Shortened Syllabus for general distribution to enquirers in General Medicine and Surgery and Orthopaedics

Part I is designed to give the student an alignment of thought with regard to the causation of disease and the reactions of the body to these adverse factors. This is the only introduction to general Pathology required.

Part II is designed to give the student a knowledge of:-

(i) the disturbances of functions and their expression by signs and symptoms in terms of disordered physiology

(ii) the principles and application of modern methods and treatment.

.....

DETAILED SYLLABUS FOR THE USE OF SCHOOLS, LECTURERS AND BONA FIDE STUDENTS

PREAMBLE

The acquisition of knowledge of certain specific diseases in the abstract without understanding the nature of the disease is undesirable. Therefore it is hoped that teaching based on this Syllabus will give the Occupational Therapists a method of thought which will allow them to approach the problem of any specific disease entity intelligently without relying on the memory of a list of half digested items of factual knowledge. This will enable them to co-operate to a much greater degree with the doctors.

The training should give some indication of the incidence of disease and the variety and scope of therapy.

It is desirable that the lectures in Part I should be illustrated by slides and pathological specimens, and should end with case demonstrations devised to show how disease has resulted from particular causes, the demonstrator working back from signs and symptoms and laboratory and ex-ray evidence to the underlying disorder of function. Cases illustrating multiple ætiology should be shown together with those in which social factors are playing an important part. Occupational hazards, social and psychogenic strains must be included.

Part II. Demonstrations of cases should be associated with the teaching of systematic medicine and surgery throughout this course of lectures and it is suggested that a weekly session should be devoted to informal discussion.

The lectures outlined hereafter should be given by the smallest possible number of teachers, so that the course may be integrated. Students should keep records of the cases seen and to these should later be added notes of patients met during the Hospital practice.

PART I

1. Nature of Disease

2. Meaning of "pathology"

3. Hereditary Disease: Haemophilia etc.
Meaning of Congenital
Constant interaction of Genetic and Environmental Factors in Causation of Disease.

4. Infection: Types of infection
Methods of spread
Reactions of body - local and general
Antibodies and allergy
Methods of Treatment.

5. Traumatic Disease

6. Deficiency Disease

7. Neoplastic Disease

8. Psychogenic Disease

9. Psychosomatic Disease

10. Ageing

11. Diseases of unknown Ætiology

PART II

Cardiovascular System

1. Introductory Lecture: Congenital Heart Disease; Rheumatic Carditis; Syphilis; Atheroma and arteriosclerosis; Hypertension; Hypotension

2. Structoral Changes: Valvular Disease; Myocardial Disease; Coronary Thrombosis and Cardial Infarotion

3. Disturbances of Function: Heart Failure
Irregularities of Rhythm
Angina

4. Hypertension:

5. Haemorrhage: Shock; Hypotension; Diseases of Blood Vessels

Respiratory System

1. Introductory Lecture: Infection of Lungs and Pleura - acute Bronchitis; Chronic Bronchitis; Pneumonias; Bronchiectasis and abscess; Tuberculosis; Industrial Lung Diseases; Cancer; Asthma.

2. Structural Changes: Consolidation; Collapse; Fibrosis; Emphysema; Hydro and pneumo thorax and emphysema.

3. Disturbances of Function: Dyspnoea; Asthma; Pleural pain; cough.

4. Acute respiratory Infections; Chronic Bronchitis and Emphysema.

5. Pulmonary Tuberculosis.

Digestive System

1. Introductory Lecture: Hirschsprungs and constitutional "weakness" of gut. Infections, acute and chronic; Aperients; Cancer; Peptic Ulcer; Ulcerative colitis; Steatorrhoea.

2. Structural Changes: Inflammation; Ulceration; Perforation and Haemorrhage.
Obstruction - atrophy.

3. Disturbances of Function: Pain; Nausea and Vomiting; Diarrhoea and Constipation; Absorptive failure.

4. Dyspepsia: "Nervous dyspepsia" (the nervous patient, the patient under stress, the patient with the weak gut); Peptic Ulcer; Cancer of the stomach and colon.

5. Jaundice

Urogenital System

1. Introductory Lecture: Infection; Cancer; Hypertension; Nephritis
2. Oedema
3. Renal Failure

Nervous System

1. Introductory Lecture: Congenital lesions; Infection; Industrial Disease; Injury; Cancer; Atheroma; Parkinsonism; Migraine; Epilepsy.
2. Upper and lower motor neurone lesions; Myopathies; Sensory lesions.
3. Peripheral nerve injuries; Peripheral nervitis.
4. Meningitis; Myolitis; Encephalitis.
5. Polio
6. D. S.
7. Cerebral palsies and Cerebral Tumours
8. Chorea and Parkinsonism.

Blood and Metabolic Disorders

1. Anaemia: Causes
2. Anaemia: Effects and treatment
3. Endocrine over-action
4. Endocrine under-action
5. Deficiency diseases
6. Inborn errors of metabolism

Loco-Motor System

1. Introductory Lecture: Congenital lesions; Infection; Injuries; Cancer; Acute Rheumatism and Rheumatoid Arthritis.
2. Diseases and Injuries of Bones, Joints, Fascia and Muscles:
   Acute and Sub-acute Rheumatism and complications
   Rheumatoid Arthritis
   Osteo-Arthritis
   Fibrositis
   Ankylosing spondylitis and degeneration of intervertebral discs
   Tuberculoscus disease of spine and hips
   Common deformities, congenital and acquired
   Contractures including Dupuytrens
3. Insuries:
   Common fractures & dislocations, including sprains.
   Knowledge of principles of appliances and splinting
   After-care of operations on joints and amputations
   Lacerations and crush injuries with special reference to hand and spine
   Burns
   Some understanding of scope of plastic surgery.

GROUP III

DRAFT SYLLABUS FOR OCCUPATIONS AND TECHNIQUES

Suggested basis for PREAMBLE

The candidate must appreciate:-

1. that knowledge of treatment value, application and teaching method has to be combined with a skill in technique.

2. that activities cover any work or recreation and are not confined to handicrafts and that credit will be given for a choice of occupations which will provide a diversity of treatments.

3. that it is necessary to acknowledge the importance and have practical experience of the effects psychological and physical of
   (a) Patterns of movement
   (b) Posture
   (c) Environmental factors.

4. that it is necessary to have:-

   (a) An appreciation of the social and recreational possibilities in Occupational Therapy.

   (b) An appreciation of the importance of establishment, or re-establishment of the patient to the fullest possible degree, in a job, in the home or with some interest.

   (c) An appreciation of the value of intellectual and cultural pursuits, and of study-courses and training courses for the disabled, and a knowledge of how to obtain the necessary courses and tutors.

   (d) An appreciation of good design.

   (e) A knowledge of handling, shaping and controlling materials.

   (f) A knowledge of handling tools, caring for them and working with them on materials.

ACTIVITIES

To achieve in part the above aims it is suggested that the candidates offer, for their examination and qualifications, activities chosen from the following lists, which are divided under headings a. b. c. d. e. f. to indicate their connection with the aims given under these headings in Item 4 above. Section g. includes a large group of miscellaneous occupations which might fall into other groups but which for purposes of balancing the examination are put in this separate list.

It is further suggested that those with previous qualifications take, in addition, only such subjects as will provide them with a range of activities for use therapeutically, and will enable them to understand and appreciate aspects other than their own. For candidates whose previous qualifications will exempt them from certain subjects, and for whom allowance will be made in hospital practice commitments, no concessions will be made in this section of the Syllabus.

(a) Physical Recreation
Dancing
Music
Drama
Puppetry
General Recreations - In this subject balance in content must be established.

(b) Housecraft
Gardening
Other vocational skills acceptable to a special committee set up by the Council.

(c) Subjects such as those on Preparatory Training Lists * or covered by Correspondence Colleges, i.e.
Languages
Clerical subjects
Draughtsmanship, etc.

(d) Pure Art - i.e. Painting & Drawing
Sculpture & Modelling
Mechanical Drawing
Lettering
Paper Sculpture
Embroidery
Fabric Printing

(e) Basketry
Weaving, including Rug Weaving
Needlecraft
Pottery
Leatherwork

(f) Woodwork, including turning and finishing
Jewellery
Metalwork
General Engineering and Tool Making
Machining, fitting and assembly.

(g)

Dyeing and Spinning	Bookbinding
Netting and Knotting	Pottery
Lacemaking	Cobbling
Woodcarving	Stool & Chair Seating
Plastics	Splint & Glove Making
Horn and Bone-work	Coir Mat Making and Rug Making
Leatherwork	Fly-Tying
Toy-making	Crutch Making
Dressmaking	China Rivetting
Model-making	Rustic Woodwork
Modelling	Walking Stick Making
Brushmaking	Upholstery
Fabric printing	Braile & Moon
Hand Press Printing	Other local crafts, not listed above.
Basketry	

CATEGORIES

Note. Students are expected to select crafts covering the handling of different types of materials and not to choose, for instance, all soft or all hard materials.

1. The candidate with no previous qualifications shall take:-

1 from a, 1 from d, 2 from e, 1 from f, and 2 to be chosen from b, c, f or g, not more than 2 in all from any one of these groups.
Total of 7 subjects.

2. The Physiotherapist, Remedial Gymnast or Nurse will take:-
As for 1.

3. Those with recognised qualifications in Drama, Physical Recreation and Dancing, or Music will take:-

1 from each of any four groups other than a.
Total of 4 subjects.

4. Those with Technical Training such as General Engineering, Tool-making or Carpentry will take:-

1 from a, 1 each from 2 groups other than their own.
Total of 3 subjects.

* Supplied by British Council of Rehabilitation.

5. Those with Technical Training such as Housecraft, Clerical, etc.

1 from a, 1 from 3 groups other than their own.
Total of 4 subjects.

6. Those with Art Training will take:-

1 from a, 1 from f, and 1 from any other group excluding d.
Total of 3 subjects.

7. Those with Craft Training will take:-

1 from a, 1 from f, and 1 from any group other than their own special craft.
Total of 3 subjects.

EXAMINATION

1. A written examination, with brief questions on all subjects taken, answerable in list or diagrammatic form.

2. Samples:-

(a) One complete sample from each craft subject entered together with a working drawing and folio and notes. Each sample should have notes attached giving an account of the possible therapeutic value of the work entailed. (The student may quote a specific case she has watched where such work was carried out.) This account should include some record of the patient's progress.

(b) Notebooks on other subjects entered plus extracts, illustrations and cuttings of interest, and teaching plan.

N.B. Suggestions should be attached to each sample for the therapeutic use of this type of occupation, with some suggestions for keeping records of the patient's progress.

3. A project which shall be a piece of work on a theoretical or practical aspect of Occupational Therapy. If written it shall be illustrated (by diagrams, cuttings charts, etc.). If practical, it shall include designs or working drawings as well as a finished sample. This may be some specially adapted apparatus, some article that can be made by disabled, some criteria for assessment or on any other relevant theme.

Or ONE further subject chosen from (a) (b) (d) (e) (f) or (g).

Candidates should note that in this, their eighth subject, they can go outside the limitations of their chosen subject as laid down in the detailed syllabus.

4. Viva Voce Examination

Recommendations to Steering Committee:-

There should be no vivas on crafts as crafts pure and simple. All vivas should be on occupations and techniques as related to treatment.

Suggestions for PREAMBLE

The Examiner will assess the following:-

(i) The student's appreciation of the effects on the individual of mental or physical disability as shown by loss of function, as it affects daily living.

(ii) The student's ability to plan treatment in the light of the divergence from normal.

(iii) The student's ability to assess residual ability in cases where resettlement is the aim.

(iv) The student's knowledge of the therapeutic value of the activities covered in the Syllabus, and their application in the treatment of varied types of illness or injury.

(v) The student's ability to demonstrate and teach.

(vi) The student's ability to use, care for tools and equipment and if necessary to make simple adaptations to them.

There should be 3 hours allotted for the examination of each student separately. This time to be divided as follows:-

(a) A ½ hour period of examination in the teaching of techniques and on the organising of group activities.

(b) A ½ hour period for examination in the following:-

(1) Movement analysis of chosen occupations

(2) Care of equipment and simple mechanics of standard apparatus.

(c) Two one hour periods - one on the treatment of Psychiatric and one on the treatment of Physical conditions - the Examiners to be specialists in these fields, and the time to be divided into approximately two thirty-minute periods for consideration of long and short term cases.

During the examination there should be available a variety of materials, tools and equipment as listed by the Examiners in their consultation. (See Note A.) This list should be made available to all Examination Centres at least 4 weeks before the practical examination.

In each period the student will be asked to plan treatment covering every aspect for a patient with a stated illness or injury. She will be given the doctor's prescription, but will be expected to ask for all relevant information. She will be asked to teach an appropriate technique, chosen by the Examiner from the subjects the student has presented, of one occupation included in her treatment plan, adapting it as necessary.

Note A. Consultation beforehand between the Examiners to ensure that there is a balance in examination on points 1 - 4 of the preamble.

GROUP IV

DRAFT SYLLABUS

THEORY AND PRACTICE OF OCCUPATIONAL THERAPY

applied to:-

A. Mental and Nervous Illness

B. Physical Disabilities

C. Industrial and Social Resettlement

D. Administration of an Occupational Therapy Deptartment.

PREAMBLE

The student should consider:-

1. General Care of the Patient - working conditions, good posture, prevention of fatigue, back strain and eye strain.

2. Planning of Treatment. This should cover:- Assessment by direct or indirect methods, the choice of occupation and the planning of progression, with special reference to the economic picture and practical appreciation of the importance of prognosis in relation to home environment and future employment.

Students should have an understanding of concurrent treatments and appreciate the necessity for close co-operation with other departments.

It is essential for the student to know the scope of the work of the other members of the rehabilitation team and that she shall appreciate both the extent of her own responsibilities and limitations within it.

A. MENTAL AND NERVOUS ILLNESS

1. The relationship of the Occupational Therapist with individuals of varying age groups from infancy to old age.

2. The effects of occupational environment: such as ward classes, craftshops, patients' clubs and centres, farm and grounds, maintenance workshops.

3. The Occupational Therapist as a teacher - presentation, teaching method - motivation.

4. Principles of individual and group "treatment". The Occupational Therapist's role as leader; case management; factors which affect group and individual relations with the Occupational Therapist.

   The placing of patients.

5. Assessment of conduct and progress; the writing of reports.

6. Social aspects of illness and treatment; industrial and other occupations in mental illness; relation to social and domestic problems.

7. General factors in treatment: care, temperament, attention, interest, prevention of fatigue by attention to posture, rhythm and relaxation.

8. Occupation as a form of treatment, i.e. occupational, educational, social and cultural, recreational, diversional, vocational and domestic. (Students should have experience in observing work in all these forms of treatment).

9. The treatment of symptoms: distraction from anxious thoughts, preventing drift into fantasy: corrective to feelings of inferiority, insecurity and social rejection.

10. Handling of behaviour problems and individual social problems in treatment i.e. specific occupational treatment of cognitive, affective and conative disorders.

    (These sections 8, 9 and 10 to be closely linked with the lectures and demonstrations given for Psychiatry iv - xi).

11. Problems particular to the mentally defective patient.

12. Co-ordination with other methods of treatment.

13. Principles governing precautions and safety measures to be adopted in practising occupational therapy.

B. PHYSICAL DISABILITIES

Students should be able to offer General Occupational treatments for the following:-

(a) Hospital patients - bed or ambulant, including outpatients.

(b) The homebound - bed or ambulant.

They should be able to adapt the Occupational Therapy technique required for specific disorders to such patients according to their state of mobility and the severity of their illness.

Attention should be directed to the needs of children and the aged; and the chronically disabled, attention should also be drawn to the problems of the unsighted.

In order that students can link their knowledge of the causes and nature of diseases as learnt in General Medicine and Surgery, with the treatments for specific disorders of function, these have been arranged in the following systems, according to the Syllabus in General Medicine and Surgery.

1. Cardio-vascular System

   Chronic Cardiac Disability
   Hyper and Hypo - tension

2. Respiratory System

   Chest Surgery
   Pulmonary Tuberculosis
   Asthmatics
   Bronchietics

3. Digestive Systems

   Gastrics

4. Blood and Metabolic Disorders

   Diseases of metabolism

Occupational Therapy for the following conditions should be studied with a knowledge and understanding of the general principles of the restoration of muscle function, the abuse and value of compensatory action and the mobilisation of joints.

Students should have a working knowledge of practical mechanics, an understanding of different methods of using slings and must be able to apply this knowledge.

5. Nervous System

   Cerebral Palsy
   Upper and lower motor neuron lesions
   Diseases with progressive deterioration of function.

6. Locomotor System (to include diseases and injuries of bones, joints fascia and muscles)

   Inflammatory and Degenerative diseases of Joints
   Fractures and Dislocations
   Postural Deformities
   After care of common orthopaedic conditions including amputations
   Tendon repairs
   Laceration and Crush Injuries with special reference to the hand
   Burns.

C. INDUSTRIAL AND SOCIAL RESETTLEMENT

The student should

A. know the effects of illness, mental and physical on the economics of the individual, the home and the nation and the problems of the chronic sick.

B. be able to assess the Patient's capacity by testing -

Function of daily living, manual dexterity, general intelligence and aptitudes, power of concentration and standard of work, work tolerance, reaction to environment and to different types of work, i.e. repetitive, assembling or creative.

C. know the methods of provision to the disabled of special appliances, self-help aids, splints, chairs, etc. for use in the home or at work. She must understand the principles of job analysis and time and motion study.

D. understand in broad outline

Rehabilitation facilities available through

I. Statutory Bodies

(a) Ministry of Health - responsible for the administration of treatment under the National Health Act. Student's concern is her particular place in the rehabilitation team.

(b) Ministry of Pensions and National Insurance - responsible for the collection and administration of cash benefits under National Insurance Act.

(c) Ministry of Labour - responsible for rehabilitation centres, training centres in industry, (Remploy factories).

The students should understand the functioning of the Disabled Persons Employment Act as it applies to their patients.

(d) Ministry of Education

(e) National Assistance Board

(f) Local Authorities - responsible for the administration of District Nurses and Home Helps, Housing Committees, Ambulance Service.

II. Voluntary Organisations -

(a) British Council for Rehabilitation (Preparatory Training Bureau).

(b) Organisations dealing with special categories of the disabled.

(c) Welfare services such as British Red Cross Society and Women's Voluntary Service.

D. ADMINISTRATION OF AN OCCUPATIONAL THERAPY DEPARTMENT

PREAMBLE

The student should be introduced to business-like methods during her training and throughout her hospital practice. Such methods will contribute much to the successful treatment of her patients which is her primary concern.

Bookkeeping, stocktaking, storekeeping etc. undertaken by an Occupational Therapist should be minimal, consistent with efficiency.

1. Apportioning of time between the following:-
   (a) Planning with other Departments for co-ordinat programme of treatment for patients.
   (b) Preparation for treatment - reading of case histories - experimenting - writing of records.
   (c) Work time-tabling for department and ward treatments together with attendance at clinics, ward rounds and home visiting where these are relevant and essential.

2. Records - patients' work and progress, simple filing systems - selected from methods in common use.

3. Space - the most advantageous use of space.

4. Buying - points to look for in choosing equipment, furniture, materials, etc.

5. Selling - estimating cost of finished articles.
   The disposal of finished articles.

6. Bookkeeping - Suppliers' accounts, discount, the return of empty containers.
   Patients' accounts and methods of paying money into hospitals.
   Petty cash account.

7. Budgetting - for staff, stock and equipment.

8. Equipment and Materials - Storage, inventory, stockbook, goods received book.
   Methods and use of stocktaking.

9. Special Problems in Organisation of work for Homebound in attidion to above

10. Organisation of Outwork for Hospital Department and Homebound

In this subject a three hour paper is suggested to be divided as follows:-

An essay (one hour)

2 hours' paper of shorter questions.

N.B. It is recommended that a list of current terminology and definitions in this subject be compiled and issued with the syllabus.