THE ONSET AND ALLEVIATION OF LEARNED HELPLESSNESS IN OLDER HOSPITALISED PEOPLE.

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ABSTRACT

The purpose of this study was to extend the current understanding of relational links between disempowering care and dependence, and empowering care and independence by assessing the extent to which the theories of Learned Helplessness (LH), (Seligman, 1975) and Learned Mastery (LM), (Peterson, Maier & Seligman, 1993) are relevant to these links. This involved investigating the onset of Learned Helplessness induced dependence and Learned Mastery induced independence. It also involved evaluating the alleviation of LH induced dependence using a LM intervention. The study used a two-staged design consistent with the LH paradigm. During the first stage a sample of older hospitalised people were randomly assigned to experimental and control conditions. Interventions included exposing participants to disempowering (non-contingent) and empowering (contingent) circumstances during a mealtime event as a means of inducing LH and LM respectively. Findings showed that disempowering interventions led to LH effects within the mealtime event akin to patient dependence. These effects were alleviated in the second stage through exposing patients to empowering circumstances consistent with the development of LM.

The exploratory phase involved developing a valid and reliable measure of empowerment and disempowerment in hospital settings, the Patient Empowerment Scale (PES). This scale evaluated the extent to which hospital environments exposed older hospitalised people to circumstances consistent with the development of LM and LH. Having developed the PES it was submitted to a sample of 102 hospitalised elders situated on one of five hospital wards. This involved patients judging the extent to which they had been exposed to a series of consensually valid prototypical empowering and disempowering acts. All wards evaluated showed a tendency towards delivering empowering care although there were significant variations between sites. Moreover, some wards were found to show a negative relationship between empowerment and age. A factor analysis was also conducted on the PES yielding the principle components of empowering and disempowering care. From these components relevant models of these concepts were constructed. Finally, alpha reliability ratings for the PES ranged from 0.74 to 0.87 for empowerment and 0.65 to 0.87 for disempowerment. Study limitations and directions for future research are considered.

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CHAPTER ONE

INTRODUCTION

INTRODUCTION

This chapter will present the general background to this study, including relevant professional and governmental policy issues. Following this, an outline of the research rationale will be presented showing how these policy issues have influenced the principle aims of this thesis. Also introduced are the theories of Learned Helplessness and Learned Mastery and their proposed relational links with the health care concepts of disempowerment and empowerment. Finally the generalisability of this study will be discussed, specifically its relevance to alternative patient groups.

GENERAL BACKGROUND

The concept of empowerment, as it relates to health care, implies that patient independence may be optimised through the provision of care which assists patients to assert control over their lives (ENB, 1989; Malin & Teasdale, 1991; Gibson 1991). This principle is amplified in a number of professional and governmental guidelines where it is seen as a vital ingredient in the provision of quality health services. For instance, from the perspective of professional guidelines, the 'Code of Professional Conduct' (UKCC, 1992) emphasises that it is the nurses' responsibility to foster patient independence by recognising and respecting their involvement in the planning and delivery of care. From the governmental perspective, the 'Patient's Charter' (DOH, 1991) broadens the application of empowering care to encompass all health care professions. Here, it is suggested that patients have the right to be given a clear explanation of any proposed treatment, including risks and alternatives, before choosing whether or not they wish to be treated. The overarching theme in both of these examples is patient *control* which is facilitated through the provision of information and the patient's right to be involved in the decision making process.

Despite this emphasis on empowering care, numerous studies have indicated how hospitalised/ institutionalised people are often exposed to circumstances which seem to be antithetical to this principle (Clark & Bowling, 1990; Kitwood & Bredin, 1992; Mountain & Bowie, 1995; Grau,

Chandler & Saunders, 1995; Draper, 1996; Alzheimer's' Disease Society, 1997). This 'disempowering' care ranges from mildly negative interactions such as invading patient's privacy or disturbing patients whilst they are resting, to more severe examples such as scolding, neglect and physical restraint. Whilst these events are undoubtedly unpleasant for patients to experience, for many they also represent *uncontrollable* circumstances resulting in negative outcomes which occur independent of any patient response. As such they are seen as leading to increased patient dependence (Solomon, 1982; 1990; Griffith, 1983; Ryden, 1990; Morrison, 1990; Foy & Mitchell, 1991; Daltroy & Liang, 1991; Kane, 1991; Royal College of Nursing, 1993; Conwill, 1993).

This literature, along with the high profile 'Dignity on the Ward' campaign run by 'The Observer,' prompted the government towards commissioning an independent enquiry into the acute care of older people in general hospital wards. This commission, entitled HAS 2000 'not because they are old' (Health Advisory Service, 1998), reported a number of deficiencies including delays in admission, shortages of equipment and supplies, a lack of staff, and instances of disempowering care. In response, the Secretary of State expressed concern over these findings stating *that "No older person in hospital should go without the fundamental care that contributes to recovery"* (HAS, 1998, Preface). However, the Royal Commission report 'With Respect to Old Age' (Royal Commission, 1999) argues that this is precisely what is happening.

This report suggests that with the reduction in National Health Service (NHS) long-stay beds (38% since 1983), there has been a growing trend towards treating older patients within acute NHS settings. These settings, however, may not be entirely suitable for the provision of elderly care. For instance, older patients take longer to recover, often requiring extended periods of convalescence and rehabilitation in the absence of active medical intervention. But with an increased pressure for beds, acute wards are frequently compelled to treat and discharge patients quickly. Thus older patients may potentially miss out on rehabilitation opportunities (Young, Robinson, Dickinson, 1998), or be placed into long term care, all be this on a presumed temporary basis, in the absence of an appropriate management plan (Bowman, Johnson, Venables, Foote & Kane, 1999). Moreover, nursing and

medical teams from acute settings may lack the knowledge, skills and resources to cater effectively for the rehabilitation needs of older adults (HAS, 1998).

In partial response to the HAS 2000 (1998) and Royal Commission (1999) reports, the government has recently re-evaluated its drive towards clinical excellence in the NHS through the White Paper "Making a Difference" (DOH, 1999a). This paper recognises that as the older population increases, there will be greater demands on the NHS to care for older people with degenerative illnesses and disabilities through effective rehabilitation. It also outlines the government's plans for improving the quality of service provision by setting comprehensive national standards which seek to address unacceptable variations in standards of care indicated by the HAS 2000 (HAS, 1998) and the Health Service Commissioner (DOH, 1999a).

Also relevant to improving service provision is the new 'NHS Charter' which is being developed to supersede the existing 'Patient's Charter' (DOH 1992) and will be published in 2000. As a prelude to publication, however, the key principles of this paper have been outlined in a preliminary report by Dyke (1998). This report argues that the original patient's charter, which is centrally written, fails to adequately reflect the scale and diverse nature of the NHS, and as such is nothing more than a 'paper exercise.' What is proposed in its place therefore, is a new charter which will define a series of core values as a means of influencing the development of a series of 'local charters.' By setting standards locally, it is proposed that they will be more relevant to specific NHS organisations.

Although Dyke (1998) recognises the need for a certain degree of freedom in the setting of local charter standards, he recommends that they reflect the findings of the King's Fund Report (Ferrell, Levinson & Snape, 1998). This report, is useful in defining the priorities of patients, many of which emphasise the importance of empowering care. Examples include the provision of comprehensive information to patients regarding their condition, treatment and choices open to them. However, one issue not alluded to by Dyke, is the provision of guidelines for the evaluation of charter standards at a local level. Regarding this issue, it may be suggested that such an evaluation warrants an ongoing assessment of empowerment at the point of care delivery.

SYNTHESIS

The above background makes reference to two important relational links. Firstly, that disempowering care, which impedes patients from asserting control over their lives, leads to increased dependence. Secondly, that empowering care, which assists patients to assert control over their lives, optimises independence. Whilst a great deal of health care literature espouses these relational links, the vast majority is anecdotal or opinion based. Nevertheless, some experimental literature does exist. For instance, regarding the link between disempowering care and dependence, research by Avorn and Langer (1982) has shown how older patients develop an 'induced disability' when exposed to uncontrollability, specifically over-assistance with a psychomotor task. Conversely, regarding the link between empowering care and independence, several studies have shown that by increasing older patient's exposure to controllable circumstances, they show increased levels of activity and 'zest for life' (Langer & Rodin, 1976; Schulz, 1976; Rodin & Langer, 1977; Mercer & Kane, 1979). But what are the psychological processes, if any, which govern these links? Moreover, can dependence, induced through a patient's exposure to disempowering circumstances, be alleviated through the provision of empowering care?

Another issue alluded to by the background, pertains to the issue of clinical auditing guidelines for the various policy documents reviewed. Regarding this issue, it is argued that at least part of this auditing process should involve an assessment of the provision of empowering care, and yet to date, no measure has been developed which specifically evaluates this concept as it pertains to clinical practice. Indeed, some authors have argued that because of the conceptual nature of empowerment, it cannot be adequately measured at all (Gibson, 1983; Rappaport, 1984). It may therefore be asked, can empowerment (and disempowerment) be expressed as a variable? Moreover, can empowerment (and disempowerment) be measured in the clinical setting?

PRINCIPLE AIMS

Aim 1: To objectively investigate the onset of dependence in older hospitalised people from the perspective of Learned Helplessness theory.

What psychological process governs the relational link between disempowerment and dependence?

The answer to this question potentially lies in the substantive psychological theory of Learned Helplessness (Seligman 1975), which states that when organisms experience non-contingent (or uncontrollable) events, they form the expectation that future events will be non-contingent as well. Subsequently, this expectation leads to three deficits: 1/ a motivational deficit, described as a lowered probability of initiating voluntary instrumental responses; 2/ a cognitive deficit, described as a difficulty in learning that responses produce outcomes when they do; and 3/ an emotional deficit, or depressed affect, considered to be a consequence of learning that outcomes are independent of responding. These deficits may generalise beyond the specific task within which they were induced to affect performance in a myriad of alternative tasks.

Translating this theory into the language of health care, it could be argued that the disempowering actions of hospital staff, which impede older people from asserting control over their lives, inadvertently expose patients to circumstances consistent with the development of learned helplessness (LH). Moreover, LH effects may be viewed in terms of dependence, with 'motivational' and 'cognitive' effects causing patients to be unable to perform tasks without supervision, direction, or active personal assistance.

Aim 2: To objectively investigate the onset of independence in older hospitalised people from the perspective of Learned Mastery theory.

What psychological process governs the relational link between empowerment and independence?

The answer to this question may also lie within the LH paradigm, especially the work of Volpicelli, Ulm, Altenor and Seligman, (1983), and Peterson, Maier and Seligman, (1993). These authors discuss an opposing process to Learned Helplessness in the form of Learned Mastery. This theory, which is almost completely antithetical to LH, argues that when organisms are exposed to contingent events, they develop an expectation that future events will also be contingent. Subsequently, this expectation leads to an increased incentive motivation and an enhanced awareness of contingent circumstances when they do indeed exist.

Translating this opposing theory into the language of health care, it could be argued that the empowering actions of hospital staff expose patients to circumstances consistent with the development of Learned Mastery (LM). In turn, LM effects should enable patients to perform tasks without supervision, direction or active personal assistance, effectively optimising independence within the limits of an individual's mental and/or physical capabilities.

Aim 3: To objectively investigate the alleviation of Learned Helplessness induced dependence from the perspective of Learned Mastery Theory.

Can dependence, induced through a patient's exposure to disempowering circumstances, be alleviated through the provision of empowering care? Regarding this question, it stands to reason that the induction of LM will alleviate LH induced dependence. For instance, by exposing *helpless* patients to empowering strategies, an expectational dissonance ought to arise whereby the patient's current expectation of *non-contingency* is challenged by the new expectation of *contingency*. Theoretically, a resolution of this dissonance in the direction of LM should alleviate LH effects, once again optimising independence.

Aim 4: To develop a reliable measure of disempowerment and empowerment in hospital environments catering for older hospitalised people.

Can the concepts of empowerment and disempowerment be measured in the clinical setting? This thesis will argue that they can, however, the development of such a measure will require the concepts of empowerment and disempowerment to be redefined as variables. In redefining these concepts, the researcher will focus on examples of empowering and disempowering events. These events, from the perspective of health care, represent the determinants of LH and LM as they manifest themselves in the actions of practitioners and are therefore the key to developing strategies for improving patient care.

The fulfilment of this aim will involve submitting the concepts of empowerment and disempowerment (as they pertain to health care) to an Act Frequency Approach (AFA), (Buss & Craik, 1983). This paradigm has been extracted from the field of personality psychology and is used pragmatically within this thesis. It consists of three distinct stages: 1/ act nomination; 2/ act

judgement; and finally, 3/ act observation. In the first of these stages, participants are asked to nominate acts (or behaviours) which may reasonably be considered to reflect the dispositional concept under investigation. These acts are then judged in the second stage as to their prototypicality. Through these initial stages the researcher aims to generate an ordered list of one hundred consensually valid prototypical acts relevant to the concept in question. These acts are then submitted to a sample of observers who are asked to judge their frequency as displayed in the conduct of a target individual over a fixed period of time.

Regarding the findings from these observations, Buss and Craik (1983) maintain that by measuring the frequency of dispositional acts within an individual's conduct, it should be possible to quantify the extent to which a disposition applies to them. For instance, if the disposition in question were 'empowerment,' then to say that an individual was empowering would be to say that they displayed a high frequency of empowering acts over a given period of time. On the other hand, to say that an individual was not empowering, would be to say that they displayed a low frequency of empowering acts over time. For the purposes of the current study, however, rather than observing the empowering and disempowering acts of individuals, these observations will be made of *groups* of individuals (i.e. all staff working on a specific hospital ward) as a means of protecting staff confidentiality.

JUSTIFICATION

As mentioned above, this thesis will attempt to demonstrate how the theories of LH and LM are relevant to extrinsic dependence in older hospitalised people. Specifically, how 'disempowering' (or control taking) interventions lead patients to develop a LH induced dependence whilst 'empowering' (or control giving) interventions alleviate this dependence through the induction of LM. If shown, this would have a significant impact on our understanding of how care potentially leads to detrimental or therapeutic outcomes for patients. It would also indicate further research exploring the constituents of empowerment and disempowerment as these concepts relate to staff/patient interactions. This research will be presented in the second component of this thesis culminating in the development of a measure of empowering and disempowering care, the Patient Empowerment Scale (PES). The PES will evaluate the extent to which hospital environments (i.e. wards) place patients at risk of developing

LH, or facilitate LM. As such, it has the potential to contribute significantly to quality assurance strategies within healthcare environments catering for older hospitalised people.

STUDY SCOPE

The aims of this research will be fulfilled using elderly patients (aged 65+) drawn from both acute and long stay NHS wards. This focus on the NHS is due to several reasons. Firstly, as indicated above, the mistreatment of older patients in the NHS is currently an issue of great concern, with high profile media campaigns, such as that led by The Observer, influencing both research and policy development. Secondly, with the need for NHS services to older people being set to rise dramatically, this issue has the potential to escalate. For instance, over the last decade, the NHS has provided services for an extra 300,000 people aged 85 and over, with this trend being predicted to continue into the next millennia (DOH, 1997- The New NHS: Modern, Dependable). It is also shown in a recent NHS quarterly report (NHS Executive, April to June 1999) that 7.7% of elderly patients discharged from hospital were readmitted within twenty-eight days. The reason for this readmission rate, which is not alluded to by the report, may relate to a number of issues including the exacerbation of illness. However, alternative explanations more relevant to this thesis might include inadequate rehabilitation, or a culture of care which induces dependence in elderly patients. Subsequently, the development of a measure of patient empowerment will be useful in evaluating the extent to which NHS wards submit patients to circumstances consistent with the development of LH induced dependence, or alternatively LM induced independence.

Whilst firmly located within the NHS, the relevance of this thesis potentially transcends this context to encompass numerous organisations catering for older people. For instance, the government's drive towards raising standards of care is not restricted to the NHS alone, but also extends into the independent sector. Here, the consultation document "Fit for the Future?" (DOH, 1999b) is incarnate of the government's commitment to establish new required standards for residential and nursing homes in recognition of the somewhat sketchy regulations currently conveyed by the Registered Homes Act (DOH 1984). These standards refer to a wide variety of topics, however, one topic particularly relevant to this thesis is the 'rights of individual residents,' which includes the sub-topics

of privacy, dignity, fulfilment, respect and choice. For example, the sub-topic of 'choice,' suggests that:

> *"Residents must be given choice in relation to social activities; food; routines of daily living; personal and social relationships; religious observance; and the handling of their deaths."*
> (DOH, 1999b, pp19-20)

This empowering standard is clearly appropriate for older residents in long term care enabling them to assert control over their lives and maintain a degree of independence. However, the effort to produce 'good' standards may be fruitless if they are not evaluated by a valid and reliable measure in the field. From this perspective, the DOH (1999b) proposes that National Standards relating to this topic are evaluated through discussions (i.e. with residents, supporters and home staff), the evaluation of relevant documentation and casual observation by the inspecting team. This approach to auditing, however, may be criticised for being far too subjective. It is therefore suggested that a more positive way forwards would be to submit the standards outlined by this topic to a more rigorous evaluation. Such an evaluation may be facilitated through the development of an objective and practical measure of patient empowerment, similar to that proposed by this thesis.

CHAPTER TWO

THE THEORETICAL AND EMPIRICAL DEVELOPMENT OF LEARNED HELPLESSNESS

INTRODUCTION

This chapter will critically evaluate the theoretical and empirical development of learned helplessness from its origins in the late nineteen-sixties to the present day. This evaluation will include: 1/ the early animal experiments and development of the 'original' learned helplessness theory; 2/ the application of learned helplessness to human subjects 3/ the 'reformulation' of learned helplessness theory; and 4/ the proposed links between learned helplessness and depression. Due to the vastness of the literature in this field, an all encompassing review of the theory may only lead to the broadest of accounts. To compensate for this, space has been set aside for detailed reviews of the more seminal papers in the field.

The search strategy used for the literature review covers a wide range of printed and electronic sources including CD-ROM, major theoretical texts, and the Internet. The initial keyword for these searches was '*learned helplessness,*' however, this term could yield upwards of 1487 references on some databases (i.e. PsychLIT), thus indicating the need for additional keywords (i.e. *animal; human; original; reformulated*, etc.). Attention was also given to the alternative spelling of keywords between English speaking nations. Where a keyword was spelt differently (i.e. *Behaviour*, UK; *Behavior*, USA), both terms would be individually used. Meanwhile, the search period generally encompassed literature from the year of the first LH experiments (i.e. 1967) to the present year (i.e. 1999), although literature preceding this period was alluded to on occasions. A literature search model is presented in 'appendix 1' outlining the main literature sources and keywords used.

Given the extensive scope of references within LH paradigm, this review is selective in it treatment of this literature base. Regarding this issue, two sources were used as a means of evaluating the more seminal papers in the field, firstly the texts of Seligman (1975); Garber and Seligman (1980);

Peterson, Maier and Seligman (1993); and Mikulincer (1994), and secondly the 'Learned Helplessness Forum.' The latter of these resources is an American based Internet discussion group. Advice from this group included responses from Martin Seligman and Christopher Peterson, both leading exponents of LH paradigm.

EARLY ANIMAL LEARNED HELPLESSNESS EXPERIMENTS (1967-1975)

The term "Learned Helplessness" (LH) was first used by Overmier and Seligman (1967) and Seligman and Maier (1967) to describe the impaired escape- avoidance response shown by dogs who had previously been exposed to non-contingent shocks. These early experiments consisted of a helplessness training phase, followed by a performance trial. The training phase, was conducted in a Pavlovian Hammock and used a 'triadic' design whereby dogs were randomly allocated to one of three groups: 1/ Dogs in the *escape group* received 64 electric shocks of 6.0mA intensity for five seconds. These shocks were terminated each time the dogs pressed panels located either side of their heads; 2/ Dogs in the *helplessness- training group* were 'yoked,' or paired with dogs in the escape group. Each pairing received the same frequency, duration, intensity and pattern of shocks, but differed regarding their control over shock termination. In this respect, dogs in the helplessness- training group had no control over the offset of the shocks, which were determined only by the responses of their respective escape group pairing; 3/ Dogs in the *control group* received no shocks.

Twenty-four hours after the training phase the dogs performed a contingent test task. This was carried out in a shuttle box containing two compartments separated by a barrier. The flooring of both compartments was covered with an electrified grid through which a shock of 4.5mA could be administered to either compartment. To escape the shocks dogs were required to jump from one compartment of the shuttle box to the other. Complete avoidance of the shock could be achieved if the jump between compartments was made during the sounding of a ten second tone which preceded shocks on every trial. Performance on escape- avoidance was assessed over ten trials.

Through comparing the performance of each of the groups it was found that dogs in the helplessness-training group were much slower to escape from the test task shocks then dogs in both the escape and

control groups. Indeed the "helpless" dogs seemed to lack the motivation to look for escape, instead they just lay down and accepted the painful shocks passively. They had learned from the first condition that they were helpless to influence the shocks and transferred this learning to the second condition. They were also slower to learn the avoidance response than the other two groups, even after they had discovered the contingency between responding and escape. For instance, when they jumped the barrier to affect escape from a shock, this behaviour was rarely repeated in the following trial.

The behaviour of the "helpless" dogs was in contrast to dogs in the escape and control groups. In situations where shocks were avoidable "non helpless" dogs would actively seek a means of escape. Over time these dogs would learn the avoidance response more and more quickly. "Helpless" dogs, on the other hand, having already undergone the "no escape" condition, would give up looking for escape more and more quickly in the escape condition, despite Seligman's attempts to make escape easier by lowering the shuttle box barrier. This was a significant finding given that the helplessness training group dogs had been exposed to exactly the same unpleasant conditions as dogs in the escape group. And implied that it was lack of control, and not a mere exposure to aversive shocks, that produced the observed deficits.

As well as demonstrating LH effects, Seligman also examined conditions which could prevent their development in animals. Seligman and Maier (1967) for example, found that dogs who received 'escapable' shocks before helplessness training with 'inescapable' shocks, were effectively 'immunised' against the development of LH, and as such did not show performance deficits in the test task. This 'immunisation' theory was used to explain how a small number of dogs, who had undergone the helplessness training in the original experiments, appeared to be resistant to the development of helplessness effects. It was hypothesised that these dogs may have had previous experience with escape from aversive situations prior to their arrival at the laboratory (Seligman 1975). Other interventions were found to have a therapeutic effect on LH. For instance, Seligman, Maier and Geer (1968), found that by forcibly dragging 'helpless' dogs from side to side in the shuttle box during the test task, thus demonstrating the escape response, LH effects could be alleviated. This intervention

was termed 'therapy' by Seligman and his colleagues.

THE ORIGINAL LEARNED HELPLESSNESS THEORY (SELIGMAN 1975)

To account for the above results, Maier, Seligman and Solomon (1969), Seligman, Maier and Solomon (1971), Seligman (1975), and Maier and Seligman (1976) proposed the original theory of LH. This stated that when organisms experience non-contingent events, they form the expectation that future events will be non-contingent as well. This expectation of non-contingency would then lead to the development of three LH deficits, motivational, cognitive and emotional, which may generalise beyond the specific task within which they were induced to affect performance in a variety of alternative tasks.

Regarding these deficits, the *motivational* deficit referred to a lowered probability of initiating voluntary responses, the consequence of an expectation that responding is futile. Empirically, this deficit was considered to manifest itself in animals through a retarded escape/ avoidance response during exposure to test trials where shocks were contingent upon their responses. Secondly, the *cognitive* deficit consisted of a difficulty in learning that responses produce outcomes when they do. This was manifested in an animal's inability to associate the termination of a shock with it's own responses during the test phase. Finally, the *emotional* deficit predicted that as a consequence of learning that outcomes are independent of responding, a depressed affect would ensue. At this stage, the emotional deficit of the original theory was yet to be empirically demonstrated. Therefore, in sum, the theoretical flow of events leading to the development of LH is as follows: 1/ Exposure to non-contingency; 2/ Expectation of future non-contingency; 3/ Motivational, Cognitive, Affective LH symptoms (see Figure 2.1).

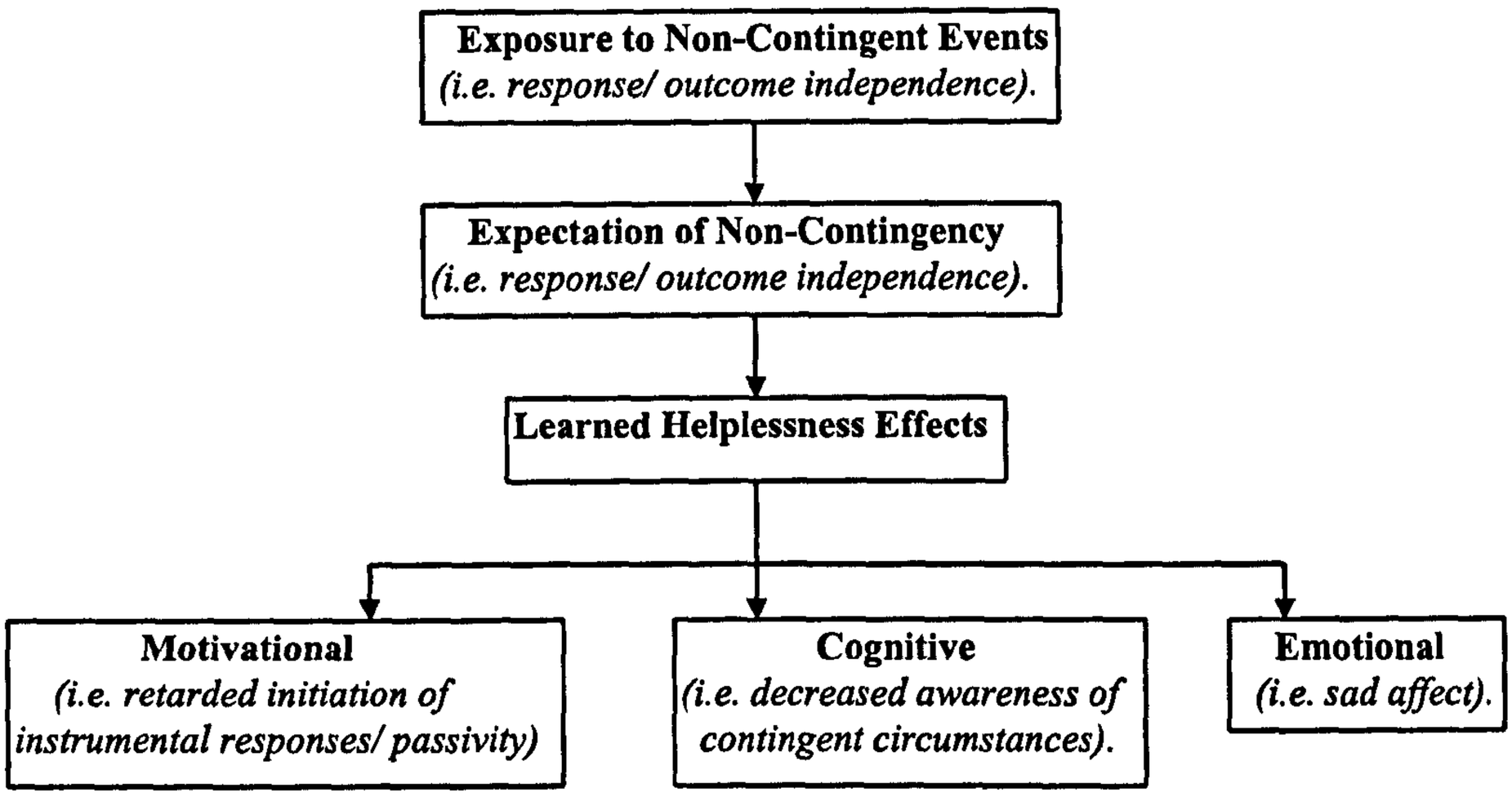


Figure 2.1 A Model of the Original Learned Helplessness Theory (adapted from Seligman, 1975).

EARLY HUMAN LH STUDIES (1971-1978)

Having demonstrated LH effects in animals, the next step was to design an experiment which would test the concept in humans. This provoked extensive research in the field which can roughly be divided up into two periods. The first period, from 1971-1978 deals exclusively with experiments related to the original LH theory of Seligman (1975), whereas the second period 1978-1999 focuses more on research related to the attributional reformulation. This section will deal with the first period (1971-1978).

The first study to attempt to apply the LH paradigm to humans was that of Thornton and Jacobs (1971). This study, which was based on Thornton's doctoral thesis, encountered several problems inherent in attempting to transfer the LH paradigm to humans. Firstly, the use of traumatic shocks, such as those used on animals had serious ethical implications, indeed even the use of painful shocks could be considered inappropriate. One solution to this would be for the researcher to conduct a sensitivity test allowing for the fixing of a mutually agreed level of shock which would be unpleasant, but not painful. This, however, would provide participants with a certain measure of predictability, ultimately reducing their stressed state. Moreover, the participant would have exerted a degree of control over a situation which should have been uncontrollable, thus reducing the likelihood of developing LH effects. To compensate for both of these difficulties, Thornton *et al* used a variety of

shock intensities, all within the unpleasant range, in order to maintain the participant's state of stress throughout the experimental procedure.

The experimental procedure itself randomly allocated 80 college students into eight groups using a combination of four shock contingency groups and two stress set instructions. These instructions meant that one set of four groups were exposed to variable shocks; whereas the other set of four groups was exposed to a fixed shock level. Within each set of groups, shock contingencies were as follows: 1/ an escape group, who could avoid shocks during the training task; 2/ a LH training group, who received inescapable shocks (yoked with the escape group) during the training task; 3/ a second LH training group, who received inescapable shocks (yoked with the escape group) without undergoing the training task; and 4/ a control group, who undertook the training task without shock.

Overall, thirty training trials were conducted where participants were instructed to depress a series of buttons to correspond with the presentation of coloured lights. Following this training phase participants moved immediately to the test phase. Within this test phase they received no specific instructions about how to perform the test task, although they were aware that a task had to be performed. This task involved a light surrounded by seven buttons. Upon each trial the light would come on for five seconds, the final three seconds of which were accompanied by a constant shock. Avoidance of shocks involved participants depressing buttons one and five in any order.

Findings showed that the test task performance of the LH training group (variable shock intensity) was significantly worse than that of the escape group ($p<0.01$ using a Scheffé S test) with participants displaying two LH deficits. Firstly, a motivational deficit, which was demonstrated through a retarded escape response during test trials. Secondly, a cognitive deficit, which was indicated by the finding that 60% of helpless participants suggested that they did not respond during test trials because they thought they had no control over shock termination. By contrast, 70% of participants in the escape group suggested that they could gain control over the shocks, they simply had to find out how.

Another important finding was that LH effects receded as the LH training groups progressed through the test phase, thus indicating that LH has a time course. Moreover, the rate by which helplessness receded differed between participants in the fixed and variable shock training groups, with participants in the fixed shock group showing greater declines in performance deficit than those in the variable shock group. This finding, which is not extensively reported by the author, raised the issue of why LH effects depreciated at different rates between the fixed and variable shock groups, an issue which was not explained by the original LH theory.

Another inconsistency between Thornton and Jacob's findings and LH theory was that the test task performance of the control group was not significantly different from that of the LH training group. This was contrary to the animal studies where control group performance was normally equivalent to that of the escape group. Thornton and Jacobs' response to this related to the fact that participants in the different groups had received different instructions during the training phase, and that these instructions could have affected the test trial. For example, participants in all groups *apart from the control group* were informed about the nature of the training task and its relationship to the shocks. Participants in the control group, however, were only told about the nature of the task as they would not receive shocks at this time. Later, during the test phase, the groups who had received the additional information would have already been aware of the relationship between task and shocks, whilst the control group would be disadvantaged in this respect. It should also be noted that because participants in the LH training groups were told of the contingency between task and shocks, it is difficult to specify whether it was the training task, the instructions, or both which ultimately influenced the development of LH. Here, any combination of intervention or instructions could have potentially lead to a relevant expectational change. As such, this issue highlights the importance of pre-planning participant instructions to avoid researcher bias.

A second study relating LH theory to humans was conducted by Dweck and Reppucci (1973). This study exposed 40 school children to a series of twenty block design problems. Ten of these problems were presented by a "success experimenter" and ten by a "failure experimenter." Problems presented by the success experimenter were soluble and thus the child's success was contingent on his/her

responses. Problems presented by the failure experimenter, on the other hand, were insoluble and thus the outcome (failure) was not contingent on the child's responses. After children had been exposed to the problems, which were randomly presented between the two experimenters during the training phase, the children faced four additional soluble problems, two presented by the failure experimenter (test problems), and two by the success experimenter (probe problems). An analysis of variance showed that the child participants took significantly longer to solve the test problems than the probe problems ($p<0.01$). This research thus confirmed the hypothesised motivational LH effect which was demonstrated by the retarded response times to complete the problems presented by the failure experimenter (other LH effects are not reported).

However, another finding from this study showed that not all participants performed poorly on the test problems. This prompted Dweck and Reppucci to divide participants into groups of 'helpless' and 'persistent' performers using the median of the test trial results. After submitting these groups to further contingent and non-contingent training problems, further test trials (presented by the failure experimenter) showed that persistent participants improved their performance from the initial test trials whilst helpless participants continued to show performance deficits (statistical significances are not reported). By contrast, performance on the contingent probe problems (presented by the success experimenter) showed similar performance improvements for both groups suggesting that the performance decrement suffered by the helpless participants was specific to problems presented by the 'failure' experimenter.

Dweck and Reppucci's (1973) paper is interesting because although the results are generally supportive of LH theory, they also present an issue which is beyond the theory's means of explanation. This issue relates to the finding that not all humans became helpless when exposed to helplessness training, which, of course, leads to the question why? Here, LH theory (as developed from animal research) was found to be tacit, and the likelihood that it failed to take into account all of the alternative factors that might influence the development of helplessness in humans was beginning to be realised.

One final problem concerning this paper relates to Dweck and Reppucci's (1973) methodology, which deviates from the LH paradigm. For instance, the fact that the authors used the same task within both the training and testing phases, meant that their findings only related to specific rather than generalised LH effects. Indeed, the issue of researchers using similar (but not usually identical) test tasks to those used to induce the helpless state was later taken up by Hiroto and Seligman (1975). It was subsequently argued that LH experiments which carry elements of the helplessness training phase over to the test phase, fail to demonstrate the generalisation of LH effects to alternative tasks. A good example of this can be found in Hiroto's (1974) study. Here, the stimulus of aversive loud noise was carried over from the training phase to the testing phase, although the actual tasks employed in both phases were different.

To account for this Hiroto and Seligman (1975) conducted a series of four experiments, some of which used distinctly different stimuli and tasks in both the training and testing phases. For instance, one such experiment used non-contingent aversive noise to induce helplessness prior to testing for LH effects using a series of anagram solution problems. Although the sample sizes within these experiments was quite small (ninety-eight participants split between four triadic designs), differences between participants in test trial performance showed significant differences between the LH training and escape groups in all experiments ($p<0.01$ to $p<0.05$). This, according to Hiroto and Seligman (1975), demonstrated the 'cross-modal' generalisation of LH effects in humans with a high degree of confidence.

In some respects, Hiroto and Seligman's (1975) experiments were facilitated by the fact that by the mid-1970s, the array of stimuli which could be used to objectively measure LH effects had broadened out considerably. Other methods included cognitive problem solving tasks, such as anagrams (Miller & Seligman, 1975; Benson & Kennelly, 1976); intelligence tests, (Thornton & Jacobs, 1972); block designs (Dweck & Reppucci, 1973); digit letter substitution (Dweck & Bush, 1976); discrimination learning (Eisenberger, Park & Frank, 1976); and Raven's matrices (Roth & Bootzin, 1974; Roth & Kubal, 1975). Soon after, researchers became aware that any task that required the selection,

organisation, and implementation of voluntary responses to solve a problem could be used in the evaluation of LH deficits following exposure to non-contingent events (Mikulincer, 1994).

Other research applying LH to humans found that LH effects could be generated without exposing participants to non-contingent circumstances (Brown & Inouye, 1978; DeVellis, DeVellis & McCauley, 1978). For instance, Brown and Inouye (1978) assessed the effects of observing the repeated failure of a competent role model on an anagram task. This experience led 'observer participants' to have reduced persistence with subsequent anagram tasks. Given that these observers had not undergone helplessness training themselves this study demonstrated how expectation, in this case derived from vicarious experience, was sufficient to produce LH effects. Indeed, Abramson, Garber and Seligman (1980) later suggested that only the merest "expectation" (p18) of helplessness was required to produce associated deficits.

It was also found that humans, like animals, could be 'immunised' against the effects of LH by exposing them to contingent situations prior to helplessness training (Thornton & Powell, 1974). Researchers also successfully linked LH to other psychological theories. For instance, Hiroto (1974) managed to establish a link between LH and locus of control (Rotter, 1966) whereby 'externals' (who perceive reinforcements as being unrelated to their behaviour) were found to become significantly more helpless than 'internals' (who perceive reinforcements as being contingent on their responses).

As well as studies apparently confirming LH in human subjects, there were also a number of studies which seemed to provide diametrically opposite results. One such study is that of Roth and Bootzin (1974) whose contrary findings were not easily explained away. This study randomly assigned 28 university students to one of four groups where the interventional groups were exposed to concept learning tasks. Groups consisted of an escape group (who were given contingent feedback following one concept learning task), two LH training groups (each group receiving non-contingent feedback following either one or two concept learning tasks) and a no treatment control group.

After the training phase, participants were moved on to the test phase which was presented as a completely different experiment. During this phase, a television presentation of concept formulation problems was interrupted by an apparent mechanical fault. This fault was purposefully engineered by the researchers who blurred the screen for participants after every tenth trial, making the stimulus cards unrecognisable. Roth and Bootzin were interested in the controlling behaviours of both helpless and non-helpless participants, in this case surreptitiously counting the number of times participants stood up and notified the experimenter of the problem. Contrary to predictions, the findings showed that helpless participants initiated significantly more controlling behaviours that non-helpless participants ($p<0.01$).

It is worth noting that apart from quite a small sample size (seven participants per group), this study has a relatively robust methodology which relates well to LH paradigm, the only extension from this being the addition of a second LH training group. Moreover, the test task, which was presented as being a different experiment, was markedly dissimilar to the training task (as recommended by Hiroto & Seligman, 1975). So why did LH effects not generalise? Regarding this question, Roth and Bootzin cited two possible reasons. Firstly, that the initial reaction to feelings of lack of control might be to assert oneself even more in order to regain control over a situation. Thus the experience of lack of control in the training task led helpless participants to demonstrate a greater amount of control-taking behaviour in the test task, a notion later developed into 'reactance theory' by Wortman and Brehm (1975). Secondly, they suggested that the training and test tasks may have been so dissimilar that they effectively broke the helplessness participants expectation of non-contingency.

Other studies demonstrating contrary results to those predicted by LH theory include a study by Thornton and Jacobs (1972). This study used the same conditions to induce LH as reported in Thornton and Jacobs (1971), (mentioned earlier), only this time the authors were attempting to evaluate the effects of non-contingent shocks on mental ability. Once again, contrary to predictions their findings showed that participants exposed to inescapable shock during the training phase, significantly increased their scores on a pre-test/ post-test mental ability assessment. This was interpreted, as with Roth and Bootzin (1974), as being due to the training and test tasks being so

different as to break the participant's expectation of non-contingency. Although underlying this interpretation, was the important question: what determines whether participants develop specific or generalised LH effects?

THE REFORMULATED LEARNED HELPLESSNESS THEORY (ABRAMSON, SELIGMAN & TEASDALE 1978) AND RELATED RESEARCH (1978-1999)

Given the mixed findings generated by early research on human LH it was argued that the original theory's emphasis on explaining animal behaviour failed to capture the complexities of human cognition and experience (Wortman & Brehm, 1975; Blaney, 1977; Golin & Terrell, 1977; Miller & Norman, 1979). In response to this criticism the original theory of LH was reviewed leading to the development of a reformulated theory of human helplessness (Abramson, Seligman & Teasdale, 1978; Abramson, Garber & Seligman, 1980). This reformulation, which was influenced by the work of Fritz Heider (1959), attempted to account for what the authors considered were three primary inadequacies.

The first inadequacy was that it failed to account for individual differences with regard to the perception of control. For example, the original helplessness theory maintained that outcomes were non-contingent if they were not affected by an individual's response. This, however, makes no distinction between cases where: 1/ individuals perceive that they lack the controlling response whilst relevant others possess it; and 2/ where individuals perceive that both they, and others lack the relevant controlling response. Consequently, Abramson *et al* (1980) drew the distinction between 'universal helplessness' and 'personal helplessness.' Universal helplessness was characterised by *"the belief that an outcome is independent of all of one's own responses as well as the responses of other people"* (Abramson *et al*, 1980, p11), whereas personal helplessness was where the *"individual believes that there exist responses that would contingently produce the desired outcome, although he or she does not possess them"* (Abramson *et al*, 1980, p11). As a means of illustration, Abramson cited two hypothetical examples of the experience of repeated failure during helplessness training on Hiroto's (1974) noise escape task. One explanation might be that the task is unsolvable, thus the participant reasons that there is nothing that he/she or anyone else can do to terminate the noise, this is

therefore an example of a 'universal helplessness'. The second participant, however, may consider that the task is solvable, reasoning that it is their inability or lack of skill, compared to others, which accounts for their failure, this is therefore an example of 'personal helplessness.'

'Universal' and 'personal' helplessness may also differ regarding the extent to which they affect an individual's self-esteem. For instance, it has been consistently found that comparison with others is a major determinant of attitudes towards self (Clark & Clark, 1939; Festinger, 1954; Rosenberg, 1965; Morse & Gergen, 1970). This would suggest that individuals who believe that desired outcomes are non-contingent with regard to their own responses, but contingent with regard to the responses of relevant others (personal helplessness), will experience lower self-esteem than individuals who believe that desired outcomes are non-contingent, not only regarding their own responses but also the responses of relevant others (universal helplessness). Therefore, whilst helplessness deficits resulting from an exposure to non-contingency are predicted to occur in both cases, the detrimental affect of lowered self-esteem is selective, being dependent on the individual's explanation of their helplessness.

To more clearly define the explanatory distinctions between universal and personal helplessness, Abramson *et al* (1978, 1980) introduced the attributional dimension of *Internality- Externality*. This is defined as follows:

> *"When individuals believe that outcomes are more likely or less likely to happen to themselves than to relevant others, they attribute these outcomes to something about themselves - internal factors. Conversely, when individuals believe that outcomes are as likely to happen to themselves as to relevant others, they make external attributions."*
> (Abramson *et al*, 1980, p9)

Therefore, 'universally helpless' individuals are considered to make external attributions, thus a student who fails an exam along with all of his/her classmates may consider an explanation such as "the exam was unfair." 'Personally helpless' individuals, on the other hand, are considered to make internal attributions, thus a student who fails an exam, whilst others pass, may consider an explanation such as "I lack intelligence." This latter example shows how the student's explanation of helplessness is *internalised*, "the reason is a fault with me," rather than *externalised*, "the reason is a fault with others, or other things," a situation which inexorably leads to lowered self-esteem.

Two other inadequacies with the original theory of LH regarded the 'generality' of helplessness to alternative situations, and the 'chronicity', or longevity, of the LH state in individuals. The issue of 'generality' related to the finding that not all humans generalised LH effects to alternative situations as had been shown in a number of studies (Thornton & Jacobs, 1972; Dweck & Reppucci, 1973; Hiroto, 1974; Roth & Bootzin, 1974). The issue of chronicity, on the other hand, was more concerned with why helplessness tended to dissipate over time, a finding which had been previously demonstrated by Thornton and Jacobs (1971).

The failure of the original theory to adequately elucidate the 'generality' and 'chronicity' of LH in humans, led to the introduction of two further attributional dimensions, *Specific- Global*, and *Stable-Unstable*. These dimensions are described by Abramson *et al* (1980) thus:

> *"The helpless individual first learns that outcomes and responses are independent; he or she may then make an attribution about the cause. This attribution affects his or her expectations about future response- outcome relations and therefore determines the chronicity, generality, and to some extent, the intensity of the resulting deficits. Some attributions have global, others only specific, implications; some attributions have chronic, others transient, implications."*
>
> (Abramson *et al*, 1980, p13)

To demonstrate the specific-global dimension, Abramson *et al* (1980) used the example of a student failing a school maths test. This event may be interpreted in several ways, but consider the following: "The school maths test was unfair" and "All school tests are unfair." Here the attribution "The school maths test was unfair" is a specific attribution as it implies that helplessness will only occur in the original situation, 'school maths tests.' The second attribution, however, "All school tests are unfair" attributes non-contingency to a global factor 'all school tests' and implies that helplessness will occur across situations. Thus global factors are considered to affect a wide variety of situations whereas specific factors are not.

To illustrate the second dimension 'stable- unstable' Abramson *et al* (1980) used the example of a rejected job candidate. Again there are a number of ways the candidate can interpret this non-contingent event, but consider the following: "I am unqualified" and "The firm is biased." Here, "I am unqualified" demonstrates a stable attribution, note how it has much more serious and longer lasting

implications concerning the prospects for future employment than the latter attribution, and how it is suggestive of future job rejections. "The firm is biased," on the other hand, being an unstable attribution, would indicate that the prospects of employment could still be close, as long as the previous firm is avoided. Thus stable attributions are considered to be both longer lived and more recurrent, whereas unstable attributions are considered to be shorter lived or intermittent.

Having defined the three attributional dimensions of the reformulated theory, it is important to note how the attributional examples given above may be accounted for by all three attributional dimensions at once. For instance, the 'stable' example for the unsuccessful job candidate "I am unqualified" is also 'global,' as it implies that helpless will apply across situations, and 'internal' with "I" representing the internal factor. Conversely, the 'unstable' attribution, "the firm is biased" is also an 'external' and 'specific' attribution. This epitomises the belief of Abramson *et al* (1980) that the constituents of all dimensions can be interrelated into an attributional matrix. This matrix may be represented thus: Internal- External × Stable- Unstable × Global- Specific. Table 2.1 shows how the three attributional dimensions interact using the example of a student who has just failed his/her maths test. Note especially how the Internal- External and Global- Specific dimensions interact to produce attributions related to: Ability (Internal- Stable); Effort (Internal- Unstable); Task difficulty (External- Stable); and Luck (External- Unstable). Furthermore, although table 2.1 appears to treat the constituents of each attributional dimension as though they are dichotomous, Abramson *et al* (1980) stressed that all three dimensions act as *continua.*

The reformulated theory is an extension of the original theory of LH demonstrating how causal attributions influence an individual's expectation of non-contingency and ultimate development of LH. Figure 2.2 presents a model of LH (adapted from Peterson & Seligman, 1984) which is based on this reformulation. Within this model we see that an individual's exposure to non-contingent outcomes leads to the development of both an expectation of future non-contingency *and* causal attributions. These two processes are linked with causal attributions influencing both the longevity (Stable/ Unstable dimension), and the generality (Global/ Specific dimension) of expectation. In turn, an expectation of future non-contingency leads directly to LH effects with the third attributional

dimension, that of Internality/ Externality, being shown to directly influence an individual's level of self- esteem.

Table 2.1
Associations Between the Three Attributional Dimensions of the Reformulated Theory of Learned Helplessness. *(Using the example of a failed maths candidate).*

	Internal		External	
Dimensions	Stable (Ability)	Unstable (Effort)	Stable (Task difficulty)	Unstable (Luck)
Global	I lack the intelligence to pass at this level.	Having the flu meant I had problems with revision.	This school always sets the standards too high.	Today is Friday the 13th.
Specific	I lack ability in maths.	I always find it difficult to revise maths.	The maths teacher always sets the standards too high.	Everyone's copy of the maths test was blurred.

(Adapted from Abramson *et al,* 1980)

One of the main criticisms of the attributional theory regarded the question of whether or not people actually make spontaneous attributions (Wortman & Dintzer, 1978). For example, research by Hanusa and Schulz (1977) exposed 65 university students to a computer administered concept formulation task (training phase). They were then tested for LH effects using a maze task. Immediately afterwards they were asked to make open-ended attributions for their success or failure on both tasks. Hanusa and Schulz (1977) found little evidence that participants made spontaneous attributions after failure. Instead, participants typically responded by merely repeating the outcome of the test trial. Although this was initially suggestive of major deficiencies in the attributional reformulation, later studies (Pyszczynski & Greenberg, 1981; Bohner, Bless, Schwartz & Strack, 1988; Grigg, Fletcher, & Fitness, 1989; Sinnott & Biddle, 1998) demonstrated that people do indeed make causal attributions. For instance, Sinnott and Biddle (1998) found that children as young as eleven were able to make spontaneous attributions regarding their performance on a skill task (ball dribbling).

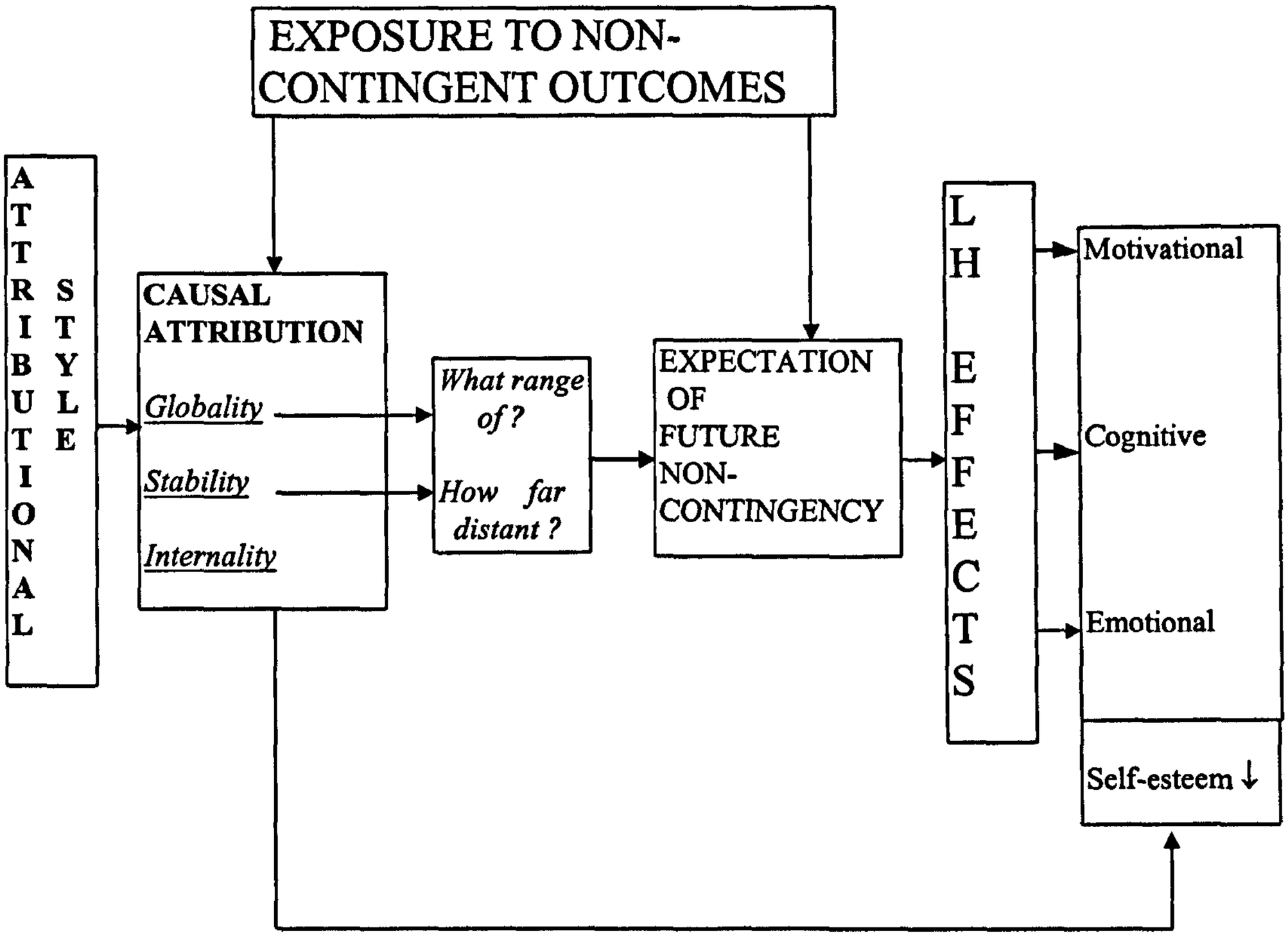


Figure 2.2 A Model of the Reformulated Learned Helplessness Theory, (Adapted from Peterson & Seligman, 1984).

A second criticism of the theory regarded the opinion that additional attributions could influence expectations of helplessness apart from those mentioned in the reformulation (Wortman & Dintzer 1978). For instance 'immediate causality versus prior causality.' This dimension postulates that people make causal attributions not only for the original cause of a non-contingent event, but also the cause of the cause. Thus if an individual fails a test for example, they may make the 'immediate' causal attribution that failure was due to exhaustion, an apparently 'unstable' attribution, but what if this exhaustion was due to the 'prior' causality of chronic leukaemia? This causal attribution is stable leading Wortman *et al* (1978) to suggest that prior causality may at times be a more important determinant of an 'expectation' of future non-contingency than immediate causality. In defence of the reformulation, however, Peterson *et al* (1993) responded by suggesting that:

> *"(Whilst) additional parameters of causal explanations may be relevant.... Abramson et al (1978) proposed the attributional reformulation in the way that they did not too exhaustively catalogue cognitive variables possibly relating to passivity, but rather to shore up helplessness theory in exactly the areas where it had proved weak."*
>
> (Peterson *et al*, 1993, p150)

A final criticism by Wortman and Dintzer (1978), regarded the failure of the attributional reformulation to account for "facilitation effects" (Wortman & Dintzer, 1978, p85). These effects involved participants who, when exposed to non-contingent reinforcement, actually perform better on a test task than participants exposed to contingent reinforcement or no treatment. Such effects had been recognised in a number of studies (e.g.. Thornton & Jacobs, 1972; Roth & Bootzin, 1974; Miller & Seligman, 1976; Wortman, Panciera, Shusterman & Hibscher, 1976; Hanusa & Schulz, 1977; Baum & Gatchel, 1981). For instance, Hanusa and Schultz (1977) and Wortman *et al* (1976) actually found facilitation effects in the very conditions predicted by the reformulated theory to produce the greatest deficits: e.g. situations in which participants were led to attribute their failure to lack of ability. As a result of this criticism, LH theorists now generally accept that facilitation effects occur (Mikulincer, 1994) and that they probably relate to the previously mentioned 'reactance theory' of Wortman and Brehm (1975).

The advent of the reformulated theory prompted a number of researchers to empirically evaluate the interaction between attributions and LH effects, ultimately leading to the discovery of a link (Mikulincer, 1986 (a & b); 1988; 1990; Pasahow, 1980). However, whilst studies in this domain helped to validate the reformulation, the experimental process was not aided by the resistance of 'attributions' to experimental manipulation, a situation which was amply demonstrated in a comprehensive study by Mikulincer (1986a). This study evaluated the effects of inducing a series of attributions (internal/external; stable/unstable; global/specific) prior to submitting participants to LH training and subsequent performance testing. This induction procedure involved giving participants instructions which would lead them to form a specific attribution with regard to their performance failure during training. For instance, with regard to the internal/external dimension, participants in the 'internal' group received the following instruction prior to undertaking the training tasks: "The outcomes of these tasks depend on you, they do not depend on external factors" (Mikulincer, 1986, p1253). Participants in the external group, however, were told: "The outcome of these tasks depend on environmental factors. They do not depend on your ability or effort level" (Mikulincer, 1986, p1253). After the training task, participants were submitted to a contingent test task in accordance with LH paradigm. The results showed that the only clear example of an attribution affecting test trial

performance related to the global/specific dimension, whereby participants who were biased to make more global attributions with regard to their helplessness, showed significantly more LH deficits ($p<0.01$).

Given the robustness of the three experiments conducted in this paper, and the comprehensiveness of the data analyses, it is difficult to account for the lack of significant links between attributions and LH theory from a methodological perspective. However, as Mikulincer (1986) suggested, an alternative account of these findings may have been that the close interrelationship between the three attributional dimensions tested, effectively confounded attempts to study any single component. Thus it would seem that people do not make attributions in a unitary way, whether experimentally manipulated or not.

LEARNED HELPLESSNESS AND DEPRESSION (1975-1999)

Since the mid nineteen seventies, LH has been considered to be an appropriate model for some, but not all types of depression (Seligman 1974; 1975; Seligman, Klein & Miller, 1976; Garber, Miller & Seaman 1979), as explained by Seligman (1975):

> *"Learned Helplessness need not characterise the whole spectrum of depressions, but only those primarily in which the individual is slow to initiate responses, believes himself to be powerless and hopeless, and sees his future as bleak - which began as a reaction to having lost his control over gratification and relief from suffering."*
>
> (Seligman, 1975, p81).

At this point, however, there was little empirical evidence to strengthen Seligman's claim and his argument in favour of LH's association with depression relied predominantly on a number of circumstantial factors. These factors were presented in a series of papers (Seligman 1974; 1975; Seligman, Klein & Miller, 1976; Garber, Miller & Seaman 1979) which aimed to draw parallels between LH effects and clinical depression. Among these parallels, Seligman's (1975) use of symptomological comparison was considered to provide the most telling support (Abramson, Garber & Seligman, 1980). For instance, Seligman argued that the symptoms of unipolar depression closely parallel the symptoms of helpless people and animals. These parallels are illustrated in Table 2.2, which is adapted from Rosenhan and Seligman (1995).

Seligman's (1975) symptomological comparison between LH and depression exposed new avenues for research which ultimately lead to associations being empirically established within a plethora of studies (Miller & Seligman, 1975, 1976; Price, Tryon & Raps, 1978; Abramson, Garber, Edwards & Seligman, 1978). In the study by Price *et al* (1978) for example, ninety-six medical and

Table 2.2 Parallels between Symptoms of Learned Helplessness and Depression.

	Learned Helplessness	Depression
Symptoms	Passivity	Passivity
	Cognitive deficits	Negative cognitive triad
	Self- esteem deficits	Low self- esteem
	Sadness, hostility, anxiety	Sadness, hostility, anxiety
	Loss of appetite	Loss of appetite
	Loss of aggression	Loss of aggression
	Sleep loss	Sleep loss
	Norepinephrine depletion	Norepinephrine depletion
	Serotonin depletion	Serotonin depletion

(From Rosenhan & Seligman, *Abnormal Psychology*, 3rd Edition, 1995, p392)

psychiatric participants were divided into three depression sets (high, moderate, and low) prior to being randomly assigned to one of four training groups. Within these groups, participants were exposed to either contingent noise (two groups, each requiring a different escape behaviour); non-contingent noise; or no noise prior to being tested on a solvable anagram task. It was found that low depression participants exposed to non-contingent noise, showed similar performance deficits (i.e. passive symptoms) as high depression no noise controls, thus Price *et al* argued in favour of a symptomological correlation between the effects of depression and LH.

Other studies focused more on how the reformulated theory of LH correlated with depression, predicting that depressives would explain non-contingent aversive events through: internal factors (leading to lowered self-esteem); stable factors (indicating that the depression will be long lived); and global factors (depressed effect will be generalised). In the study by Seligman, Abramson, Semmel and von Baeyer (1979) for instance, the composite scores of 143 undergraduates for internal, stable, and global attributions using an Attributional Style Questionnaire (ASQ) were found to significantly correlate with their scores on the Beck Depression Inventory ($p<0.01$). Further evidence was provided in the form of a comprehensive meta-analysis of twenty-seven studies of attributional style and

depression incorporating over 4000 children and adolescents (Joiner & Wagner, 1995). This study undertook a cross-sectional analysis between attributional style and both self-reported and clinical depression showing highly significant associations between these factors ($p<0001$ in each case). Alternative studies in this domain found that whilst depressives make internal, stable, and global attributions for bad events, the antithesis applies when explaining good events, such as success. For example good events were explained using external, unstable and specific factors, such as luck or chance, thus maximising the expectancy that future responding would be ineffective (Seligman, Abramson, Semmel & von Baeyer, 1979; Sweeney, Anderson & Bailey, 1986).

Seligman's (1975) advancement of LH theory as a model of depression has been critiqued on several fronts. Firstly, the failure of the model to sufficiently define the type of depression it explains. Secondly, that the symptoms of LH are not necessarily related to all types of depression, and finally, the failure of the model to account for findings suggesting that not all exposure to non-contingency leads to depressive symptoms. Regarding the first of these criticisms, it is vital that all models are introduced in such a way that they can be disproved. The failure of LH to adequately define the sub-category of depression to which it applied created ambiguity, ultimately making it resistant to precise investigation or critique. As such, theorists were left pondering upon exactly where LH fitted in to the complex matrix of depressive disorders. For instance, it is tempting to suggest a relationship with reactive depression with its emphasis on life events appearing to directly echo the induction of helplessness. Depue and Monroe (1978), however, questioned the wisdom of relating one ambiguous model of depression with another, claiming that 'reactive depression' was not consistent with a single etiologic factor, and as such, was not a unified entity. Instead, they suggested that LH best described 'situational depression,' a transient state of depressed mood, although they also note distinctions between the two processes in as much as LH relates to specific life events, and is likely to last for as long as these events persist.

The second criticism of the LH model of depression relates to the parallel drawn between LH effects and depressive symptoms. For example, Depue and Monroe (1978) made the point that passivity (or retarded instrumental responding), is not pervasive in depressive disorders, with some types of

unipolar disorders being characterised more by anger and irritability. Costello (1978), on the other hand, questioned the performance effects shown in LH experiments with non-depressed and clinically depressed participants. These, he suggested, may be interpreted more in terms of the decreased motivation of the clinically depressed participants, when compared with the non-depressed participants, rather than an expectation of non-contingency.

Finally, the failure of both the original and reformulated theories to specify the effects of non-contingency according to the desirability of the outcome, implied that both good and bad non-contingent outcomes could lead to helplessness deficits, including depressed affect. However, despite empirical evidence confirming the presence of performance deficits following exposure to non-contingent good events (Goodkin, 1976; Welker, 1976, (in animals); Eisenberger, Kapan & Singer, 1974, Griffith, 1977, (in humans)), there was no evidence of emotional deficit (Griffith, 1977). For instance, Griffith exposed forty-four participants to four conditions of a concept formulation task. Within this task, the escape group received contingent feedback over four trials for both their intermediate responses and the four final stimulus values. By contrast, two helplessness training groups (non-contingent failure and non-contingent success) received predetermined feedback on their intermediate responses (50% failure, 50% success), but differed in that the non-contingent failure group ultimately received failure feedback on the final stimulus values, whilst the non-contingent success group ultimately received success feedback on these final solutions. A control group were allowed to examine the stimulus cards but did not attempt to solve any problems. Griffith hypothesised that both non-contingent failure and non-contingent success groups would show helplessness effects on a subsequent anagram performance task (test task).

In addition to task performance, Griffith (1977) also attempted to assess the depressed affect of helplessness by asking participants to complete a Paired Anxiety and Depression Scale (PADS), (Mould, 1975) at the end of helplessness training. This scale consisted of 20 pairs of adjectives in a forced choice format and attempted to index the relative balance between anxiety and depression in individuals (as opposed to measuring the absolute value of either element). Regarding this secondary test, it was hypothesised that both non-contingent success and failure would lead to increases in the

relative dominance of depression over anxiety.

Findings showed that compared to controls, exposure to non-contingent success and non-contingent failure resulted in performance deficits in both groups ($p<0.05$), deficits being slightly greater in the 'success' group than in the 'failure' group. Therefore, non-contingency may be considered to have adverse effects on performance, irrespective of whether the reinforcing events are positive or negative. However, Griffith (1977) also found that there were significant differences regarding the results of the Paired Anxiety and Depression Scale. For instance, whilst participants in the non-contingent failure group showed significant pre-test/ post-test changes in the direction of increasing depression, participants in the non-contingent success group showed exactly the reverse with significant pre-test/ post-test changes in the direction of increased anxiety (i.e. decreasing depression), ($p<0.05$). This result is in contrast to LH theory which would suggest that exposure to non-contingency, be it related to negative or positive events, should lead to the development of a depressed affect. Indeed, this demonstration of motivational and cognitive LH effects in the absence of a depressed affect, could lead to the view that depression is not an intrinsic component of LH. In response to this Seligman (1999) wrote:

> *"LH does not deduce depression from non-contingency. It only directly deduces 1/ lack of response initiation, and 2/ difficulty learning future contravening contingency. What 'mood' is induced could well depend on the valence of the event. For bad events that mood, we have suggested, is sadness, anxiety, hostility. For uncontrollable good events, it might be frustration, boredom"*
>
> (Seligman, 01/05/1999, www)

Therefore, experimental interventions which expose participants to non-contingency using positive events lessen the risk that participants will develop a depressed or sad LH effect. This clearly offers a more ethical option to researchers not requiring the induction of this depressed effect as part of their research design.

CHAPTER THREE

LEARNED HELPLESSNESS AND OLDER PEOPLE IN THE INSTITUTIONAL/HEALTH CARE SETTING

INTRODUCTION

This second part of the literature review will evaluate the relevance of the LH theory as an explanation of dependence in older hospitalised people. This will be undertaken by: 1/ critically evaluating the extent to which LH may be applied as an explanation of dependence; 2/ examining competing theories of dependence in older hospitalised people; and 3/ assessing the clinical significance of an array of techniques proposed by LH theorists as a means of alleviating human LH.

The search strategy used as a basis for this review covers a wide range of printed and electronic sources including CD-ROM, major theoretical texts, and the Internet. The initial keyword for these searches was '*learned helplessness,*' however this yielded few references relevant to the association between LH and health care. Moreover, these references were mostly opinion based articles rather than research or theoretical reviews. Subsequently, alternative terms related to the hypothesised links between LH and health care were used to search this field including: *empowerment; disempowerment; independence; and dependence*. Attention was also given to the alternative spelling of keywords between English speaking nations. Where a keyword was spelt differently (i.e. *ageing*, UK; *aging*, USA), both terms would be individually used. Meanwhile, the search period generally encompassed literature from the year of the first LH experiments (i.e. 1967) to the present year (i.e. 1999), although literature preceding this period was alluded to on occasions. A literature search model is presented in 'appendix 1' outlining the main literature sources and keywords used.

LEARNED HELPLESSNESS THEORY AS AN EXPLANATION OF DEPENDENCE

According to Bond and Coleman (1990), dependence is:

> *"Where individuals, congenitally or by acquisition, are incapable, temporarily or permanently, of performing a range of actions which are assumed to be within the competence of full citizens of a given society. In particular, where there is an inability to carry out essential tasks related to personal maintenance, physical mobility, sensory functioning, mental stability, and communication...(And)...where society, by its laws, conventions and social institutions, places individuals in a dependent role or situation (where they are) deemed incompetent to live an independent and unsupervised life."*
>
> (Bond & Coleman, 1990, p212)

This elaborate definition not only describes the behaviour of dependent people, as individuals incapable of producing responses contingent with independent living, it also describes the attitudes ('deemed incompetent') and reaction ('placed...in a dependent role or situation') of a seemingly intolerant society. What is missing from this definition, however, is the question of why people become dependant. Concerning this, Baltes (1996) argued that the causes of dependence may be seen as relating to a series of both 'intrinsic' and 'extrinsic' factors.

From the perspective of 'intrinsic' factors, the causes of dependence are seen as relating to physical and/or mental incapacity, occurring as a result of biological decline. Here, it is tempting to view dependence as being inextricably linked with the sorts of infirmities that naturally occur with age. However, to link dependence with the normal ageing process, is to suggest its inevitability. This is clearly an issue of some debate. On the one hand, there are numerous examples of where age related processes are accompanied by quite high levels of dependence (i.e. dementia, arthritis). On the other, it has been shown that the vast majority of western people aged 65+, demonstrate little or no dependency in the domains of self and household care (Guralnik & Simonsick, 1993).

It is important to recognise that 'biological decline' is but one pathway to dependence and that alternative 'extrinsic' factors which relate to the social dynamics of an individual's immediate environment have also been proposed. These 'extrinsic' factors are described by several theories (see 'Competing Theories of Dependence' presented later), however, the perspective used in this thesis is that of LH. Using this theory from the health care perspective, it is proposed that the hospital environment, and the social interactions therein, expose patients to many uncontrollable (or non-

contingent) circumstances. As a result of this exposure, patients develop an expectation of non-contingency leading to the development of LH. In turn, LH retards the individual's initiation of instrumental responding and impairs their ability to recognise contingent situations when they do indeed exist. The patient becomes dependent.

Since its original development, LH theory has been applied to an array of physiological, psychological and situational domains in an attempt to explain the motivational or depressive difficulties of individuals (e.g. epilepsy, Endermann, 1997; depression, Peterson *et al*, 1993; mental retardation Weisz, 1990; rheumatic disease, Parker & Wright, 1997; chronic pain, McGuigan, 1995; childhood autism Meline, 1985; alcoholism O'Gorman, 1993; and institutionalisation, Aasen, 1987). Whilst many of these applications have been appropriate, Peterson *et al* (1993), and Mikulincer (1997) have argued that other applications of the theory have been over metaphorical, and applied LH theory on the basis of very fragile evidence. Peterson *et al* (1993) drew the distinction between good or bad applications of the theory by evaluating the extent to which a person or group demonstrated three of the theory's most fundamental principles. These are:

- A previous exposure to uncontrollable events: "*Learned helplessness follows in the wake of uncontrollable events. Bad events per se do not cause learned helplessness. Trauma may, of course, produce unfortunate reactions, including passivity, but trauma induced helplessness is not of the 'learned' variety.*" (Peterson *et al*, 1993, p229).

- Motivational effects as a result of exposure to uncontrollability: "*Failing through lack of mental or behavioural action to meet the demands of a situation in which effective coping is possible*" (Peterson *et al*, 1993, pp228-229).

- Inappropriate cognitions as a result of exposure to uncontrollability: "*Learned helplessness is mediated by particular cognitions acquired during exposure to uncontrollable events and inappropriately generalised to new situations. The exact nature of these cognitions is unclear.*" (Peterson *et al*, 1993, p229).

The utility of LH as an explanation of dependence in older hospitalised people therefore relies upon the extent to which literature in the domain of health care and older people can adequately demonstrate these three fundamental principles.

Uncontrollable events and older people

General events

It has been suggested by a number of researchers that, as people age, there is an increasing risk of exposure to uncontrollable events. These may include: bereavement (especially of a spouse, but also of other family and friends); retirement (which is not always controllable and is often accompanied by the loss of income and extended social network); and sudden relocation (such as movement into residential care, an event which is often determined by illness), (Hayman & Gianturco, 1973; Minkler, 1981; Aday & Miles, 1982; Aasen, 1987; Teitelman & Priddy, 1988; Solomon, 1990; Armer, 1993; Peterson, Maier & Seligman, 1993). Older age is also characterised by declines in physiological and psychological functioning (Schulz 1980, Abrams, 1978). These declines may be relatively mild, such as a deterioration in vision (affecting 42% of people aged 75 or more) or hearing (affecting 36% of people aged 75 or more), and may thus be compensated for through the use of external aids (e.g. glasses or hearing aid). Other examples of functional decline are more difficult to correct, such as arthritis (affecting 58% of people aged 75 or more), ambulatory unsteadiness, (affecting 49% of people aged 75 or more), and forgetfulness (affecting 44% of people aged 75 or more). (Figures from Abrams, 1978). Older people are also increasingly prone to highly disabling conditions including dementia (affecting 20% of people aged 80 or more), fractures, especially fractured hip (affecting 16% of women by the age of 85), and stroke (affecting 2.5% of people aged 65 or more). (Figures from Bond & Coleman, 1990).

Another issue which undoubtedly leads to older people being exposed to uncontrollable aversive events is elder abuse. This is defined by Kosberg and Nahmiash (1996) as an "adversive act of omission or commission against an elderly person," which results from either the "intentional or unintentional action or inaction" of the abuser (Kosberg & Nahmiash, 1996, p31). The authors back this definition up with five representative examples as shown in table 3.1.

Table 3.1 Five Examples of Elder Abuse.

1/ Physical mistreatment, such as striking and burning.
2/ Verbal, emotional, or psychological abuse, in which the older person is subjected to repeated insults humiliation, and threats.
3/ Material or financial abuse, such as misuse of the victims property or finances.
4/ Passive and active neglect, including withholding items or care that is necessary for daily living.
5/ Violation of civil rights, in which an older person is forced to do something against his or her wishes

(From Kosberg & Nahmiash, 1996, pp31-32)

Kosberg (1988) suggested that the prevalence of elder abuse is difficult to assess given that the majority of cases occur in community based private residences. This has the effect of making access difficult for researchers, a situation which is compounded by the 'taboo' nature of the subject. Despite these difficulties, several studies have recently considered this issue. For example, the Social Services Inspectorate of the Department of Health (1992) assessed sixty-four cases of domestic abuse in people aged 60 or more. Findings showed that physical abuse occurred in 67% of cases, psychological abuse in 56% of cases, and financial abuse in 38% of cases. Moreover, in 41% of cases, more than one type of abuse was involved. Further evidence came from Homer and Gilleard (1990) who focused their research on forty-three older respite patients. These patients reported physical abuse in 2% of cases, verbal abuse in 21% of cases, and neglect in 21% of cases, although Homer *et al* (1990) suggested that the high level of cognitive impairment within the sample made the responses of some participants difficult to assess. Additional research on prevalence was conducted by Ogg and Bennett (1992) working in conjunction with the British Office of Population Censuses. This provided prevalence data on a national scale with 5.6% of respondents aged 60 or more reporting verbal abuse, 1.7% physical abuse and 1.5% financial abuse. These results were similar to prevalence data obtained in North America (Podnieks, 1992), indicating the global scale of the problem.

Hospital and institutional events

The abuse of older people may not be restricted to the community alone, but may also occur in hospital and institutional care settings. Kitwood (1990) for instance, argued that social interactions between carers and patients in some institutional environments could have a "malignant" or damaging effect on older people. This process, termed "Malignant Social Psychology" (MSP), (Kitwood, 1990), forms an integral part of Kitwood's (1990, 1997) psycho-social theory of dementia. Using a critical incident technique, MSP was categorised into seventeen elements illustrating the negative attitudes and actions of some carers during social interactions with dementia sufferers. Five examples of MSP are given below (table 3.2), all of which show how elder abuse can lead to the development of uncontrollable circumstances for older people.

Table 3.2. Five examples of Malignant Social Psychology.

1/ *Treachery*:	Using forms of deception in order to distract or manipulate a person, or force them into compliance.
2/ *Intimidation*:	Inducing fear in a person, through the use of threats or physical power.
3/ *Outpacing*:	Providing information, presenting choices, etc.., at a rate too fast for a person to understand; putting them under pressure to do things more rapidly than they can bear.
4/ *Ignoring*:	Carrying on (in conversation or action) in the presence of a person as if they were not there.
5/ *Imposition*:	Forcing a person to do something, overriding desire or denying the possibility of choice on their part.

(From Kitwood, 1997, pp46-47)

Interactions between carers and patients, similar to those described by Kitwood above, have been reported in both hospital and institutional settings caring for older people (Cattermole, Jahoda & Markova, 1988; Clark & Bowling, 1990; Mountain & Bowie, 1995; Grau, Chandler & Saunders 1995; Draper, 1996; Alzheimer's Disease Society, 1997; Health Advisory Service, 1999). For instance Clark and Bowling (1990), in an observational study of the hospital and institutional care of older people, found that staff engaged in a number of disempowering practices. These included ignoring patient's needs for help, force feeding, restraining, and the removal of cutlery or food from patients before they had finished their meals. The following vignette is from the study:

> *"(Lunch time) Mary is watching one of the patients who does not eat being force fed with a beaker of complan. She says angrily to Jane "It's no good them force feeding them because it doesn't do them any good. It gives them indigestion and makes them unhappy. It's no good at all!" (30 min later) The domestic is in a hurry to clear up the dishes, she says "I'm on my own." She removes Daisy's and Jane's sweets before they have finished. She actually removed the spoon from Daisy's hand, and Jane had not even started on her sweet. (Hospital ward)"*
>
> (Clark & Bowling, 1990, p1208)

Disempowering practices such as these effectively expose patients to non-contingent circumstances. For instance, force feeding is an example of an aversive outcome which, in the example above, appears to be occurring independent of any patient responding.

Further evidence of the exposure of patients to non-contingent events is provided in an ethnographic study conducted by Draper (1996). This study evaluated quality of life issues pertaining to older

hospitalised patients using a sample of eleven nursing sisters. These sisters generally agreed that patients should be treated as individuals and given the right to choose with regard to their daily routine. However, they also discussed a number of strategies by which patients were forced to comply with aspects of their care, with tactics ranging from 'coming to a compromise' to 'forcing and physical restraint.' Of the latter category, a nurse describes the restraint of an elderly gentleman thus:

> *"...putting a patient into a Buxton chair. We've got a man who wanders around,...but it gets to the point where he's rushing around and he's likely to fall or knock himself or knock something over and hurt someone else. So at that time we say right, OK, he's got to go in the chair, so we are really restricting him in a way, restraining him."*
>
> (Draper, 1996, pp328-329)

Restraint clearly leaves patients in a position where responding is futile, as such this example represents a clear indication that older patients, at times, may be submitted to extreme episodes of aversive non-contingency.

Apart from the *presence* of non-contingent staff/patient interactions, another pertinent issue regards the *frequency* of such events in the health care setting. This issue was considered by the Health Advisory Service (HAS, 1998) within observational research evaluating the care of sixty-eight patients across fifteen acute hospital wards. This showed that negative staff/patient interactions (i.e. interactions which disregarded patient dignity or were disrespectful) accounted for only 2% of the overall observations. Whilst this finding seems reassuringly low, it is worth pointing out that a closer inspection of the observational categories for the study reveals a number of ambiguities. For instance, categories *other* than 'negative interactions' include 'basic care.' This category, according to the observational definition, refers to "*care tasks carried out adequately, but without demonstrating patient centred empathy, support, explanation, or socialisation,*" (HAS, 1999, p10) a definition which could lead some to argue for its inclusion within the 'negative interaction' category. Moreover, care considered to be 'positive social' is described as "*care over and beyond (the) basic physical task*" (HAS, 1999, p10), a situation which, if related to patient activities of living, could produce more negative than positive effects (Baltes, 1996). For instance, as well as negative uncontrollable events, LH theory suggests that positive uncontrollable events may also lead to helplessness effects (Eisenberger *et al*, 1974; Griffith, 1977, mentioned earlier). Translated to the institutional/health care environment, such uncontrollable positive events may be exemplified by the excessive helping behaviours of nursing staff and other

carers leading to outcomes occurring independent of the patient's responses, in other words, non-contingency. These behaviours, which involve carers anticipating and performing the needs of patients thus negating independent responding, have been identified in a number of studies (Marlow, 1973; Lester & Baltes, 1978; Barton, Baltes & Orzech, 1980; Baltes, Honn, Barton, Orzech & Lago, 1983), and have been shown to be counterproductive to patient functioning (Lester & Baltes, 1978; Avorn & Langer, 1982).

In conclusion, the events described in this section provide compelling evidence that older hospitalised people are exposed to non-contingent circumstances which are consistent with the development of LH. As such, the first fundamental principle of LH would appear to be supported by the literature. In spite of this, it is worth noting that the literature reviewed does not consider negative events purely from the perspective of non-contingency, indeed to date, no research has systematically reviewed nurse/patient interactions of this type.

Motivational and cognitive Learned Helplessness effects in the health care setting.

Although there are several anecdotal and opinion pieces regarding LH effects in the institutionalised elderly (i.e. Solomon, 1982; 1990; Griffith 1983; Ryden, 1990; Morrison 1990; Daltroy & Liang, 1991; Kane, 1991; Foy & Mitchell, 1991; Conwill, 1993), relatively little research has been undertaken in this domain. For instance, this literature review found only two studies focusing on the development of LH effects in hospitalised/ institutionalised patients (Raps, Peterson, Jonas & Seligman, 1982; Avorn & Langer 1982).

Raps *et al* (1982), used forty-eight inpatients and twenty-four outpatients (all male) with an average age of 39.9 years in a longitudinal study testing performance on two cognitive tasks over a nine week period of hospitalisation. The aim of this research was to assess whether hospitalisation changed a persons vulnerability to experimentally created uncontrollability. The procedure involved participants being assigned to one of two groups. The first group (twenty-four inpatients, eight outpatients) received mild helplessness training using uncontrollable loud noise, (ten trials of noise (80db) for 8 seconds). This amount of helplessness training was insufficient to cause LH in normal adults, thus the

effects of hospitalisation were not immediately masked by high levels of LH. The second group (twenty-four inpatients, eight outpatients) received no noise. The performance of the participants was later tested at one, three, and nine weeks of hospitalisation. Testing was conducted using an adapted version of Raps' anagram task (Raps 1977) and followed by twenty loud noise trials using the hand shuttle box task of Hiroto and Seligman (1975). Depression was also tested using a shortened form of the Beck's Depression Inventory (Beck, 1967).

Results showed significant differences between the two groups of patients after three and nine weeks ($p<0.05$ at both points). However, the most surprising finding did not relate to group differences, but rather the test task performance of patients throughout their nine week hospitalisation. Here, descriptive data for both groups showed that poor performance on cognitive tasks increased with the length of hospitalisation, even as illness resolved. This poor performance was exhibited by the participants inappropriate passivity (e.g. the participant's lack of mental and behavioural action in the undertaking of the controllable test task) and cognitions (the participant's generalisation of an expectation of no control to new situations). Other results included mild increases in depressive 'symptoms' which were also commensurate with increased length of hospitalisation.

Raps *et al* (1982) explained these results by suggesting that the experience of hospitalisation had exposed participants to an array of uncontrollable events. These events, in turn, had led them to develop an expectation of non contingency and LH, the latter being exhibited by poor performance on cognitive tasks and increased depressive scores. However, Baltes and Skinner (1983), in a critique of this paper, suggested that Raps *et al* (1982) failed to conclusively demonstrate that observed LH effects were actually caused by exposure to uncontrollable events. Instead, Raps *et al* merely assumed that hospitalisation would lead to an exposure to uncontrollability.

The failure of Raps *et al* (1982) to convincingly demonstrate the link between uncontrollability and LH effects was amended by Avorn and Langer (1982). This research randomly assigned 72 older nursing home patients into three groups for training in a psychomotor task (a ten piece jigsaw puzzle). These groups differed regarding the extent to which assistance was given to participants as outlined below.

Group 1. *Helped:*

"At each of four 20-minute sessions an examiner sat with the subject and encouraged him/her to work on the puzzle; at the same time, the examiner actively assisted in locating puzzle pieces, suggested where to put them , and often solved the puzzle 'with' the subject."

Group 2. *Encouraged only:*

"At each of four 20-minute sessions an examiner sat with the subject and instructed him/her to complete the puzzle, offering encouragement but only minimal assistance"

Group 3. *No contact*:

Only participated in "the pre-experiment and post-experiment testing."

(Avorn & Langer, 1982, p39)

From the above, it can be seen that by providing patients with excessive help in Group 1, the examiner effectively reduced patient control over the event. For instance, by finding and placing jigsaw pieces in the puzzle, outcomes occurred in the absence of patient responding (i.e. non-contingency). In Group 2, however, the examiner allowed patients to maintain control over tasks by merely offering encouragement, but very little assistance. Subsequently, the majority of patient responses lead to outcomes (i.e. contingency).

The effects of these interventions were measured using a controllable test task. This task was submitted both pre- and post-intervention and involved the same psychomotor task as was used in the training phase, only without experimenter involvement. Results showed that the number of post-test puzzle pieces completed by participants in the 'helped' group, were significantly lower than those completed by the 'encouraged only' group ($p=0.04$). There were also differences regarding the speed per puzzle piece completed, with the 'encouraged only' group showing an average improvement of 17.7 seconds pre and post test, compared to 1.8 seconds in the 'helped' group ($p=0.01$). Meanwhile, the performance of participants in the 'no contact' group fell in-between the two intervention groups. Avorn *et al* (1982) explained these findings in terms of LH, suggesting that the excessive helping actions of researchers in Group 1 had exposed participants to a non-contingency. As a result, the patient's expectation of response-outcome independence ultimately lead to the development of motivational LH effects, as observed in the findings. It was therefore suggested that by excessively helping patients with self-care activities, nurses potentially place patients at risk of developing LH effects.

Avorn and Langer's (1982) paper may be challenged on a number of grounds. Firstly, the authors tested participants on the same task as was used in the training phase, thus missing the opportunity to

evaluate the generalisation of LH effects to alternative tasks. As a result, this research fails to demonstrate the 'cognitive' LH principle. Secondly, no attempt was made to correct the induced LH effects occurring in Group 1. This would have been interesting from the perspective of increasing knowledge on LH reversal, however there is also the ethical question of leaving residents with an induced deficit which may have surreptitiously generalised to alternative tasks. Thirdly, the intervention in Group 2 seems quite ambiguous. For instance, the group is described as 'encouraged only' and yet the definition implies minimal assistance. This leads the reader to question what 'minimal' assistance is, and how it differs from the 'active' assistance given to participants in Group 1 (helped).

Finally, despite Avorn and Langer's use of a triadic design, tests of difference were conducted pair-wise using a series of simple one-tailed t-tests. However, the application of simple t-tests to what is effectively a one-way design increases the probability of achieving a significance in at least one of the pair-wise calculations. There are two possible solutions to this problem. Firstly, the authors could have adjusted the significance level using a Bonferroni correction (i.e. alpha is divided by the number of independent comparison groups (*0.05/n*) thus maintaining control over the type 1 error rate), although this correction was clearly not made. Secondly, the authors could have used a more appropriate statistic, such as a one-way ANOVA with post hoc Tukey test. As such, we are left with a research paper which has tested its hypotheses under circumstances likely to lead to a type one error.

In conclusion, current literature in the field of health care only partially demonstrates the three fundamental principles of LH proposed by Peterson *et al* (1993). With regard to the first principle, there is adequate evidence that older people are generally exposed to uncontrollable life events, both within their everyday lives, and within hospital or institutional environments. However, with regards to principles two and three, which involve the linking of uncontrollable events with generalised LH effects, the evidence is inconclusive. For example, whilst the research of Raps *et al* (1982) and Avorn and Langer (1982) indicate the existence of LH effects in older hospitalised people, their papers are challenged by significant methodological frailties, and as such their findings should be regarded with caution.

COMPETING THEORIES OF DEPENDENCE IN THE INSTITUTIONAL/ HEALTH CARE SETTING

In their critique of Raps *et al* (1982), Baltes and Skinner (1983) suggested two alternative theories to LH which could account for inappropriate passivity in older hospitalised people. These theories are 1/ 'sick role theory'; and 2/ the 'instrumental passivity hypothesis.' Later, these theories were added to by Baltes (1996), who proposed a third alternative in the form of the 'self-regulated dependency' paradigm. The following section will outline these alternative theories prior to discussing their implications for future research.

Sick role theory (Parsons, 1951)

Sick role behaviour refers to an "activity undertaken for the purpose of getting well by those who consider themselves ill" (Kasl & Cobb, 1966, p531). According to Parsons (1951; 1958) the sick role consists of four elements. Firstly, the ill person is exempted from social responsibility, subject to the illness being legitimised by an appropriate authority, usually the medical practitioner. Secondly, the sick person is not expected to look after him or herself, it is therefore the responsibility of others to care for the sick individual. Thirdly, given the undesirability of illness, the sick person is obliged to want to get well and finally, the sick person should seek medical advice and co-operate with medical experts and therapists throughout the illness process. These culturally generated elements provide patients with a role expectation which is influenced and reinforced by the patient's physician and family (Parsons, 1951; 1958; Gordon, 1966; Segall, 1988). Of this process Saunders (1954) wrote:

> *"An individual has cultural guides that enable him to know when he or others may be regarded as sick, something about the cause and nature of the sickness, what may be done to alleviate or remedy the condition, and the behaviour expected of him and of others in the situation."* (Saunders, 1954, p143)

According to these definitions, sick role is a normal activity undertaken by those who perceive themselves to be genuinely unwell. If true, then passivity, (in the form of 'sick role' dependency), should decrease as illness subsides. However, as Raps *et al* (1982) discovered, passivity in the hospital setting continued to increase irrespective of improvements in health. This would indicate that either

patients have difficulty in perceiving improvements in their health, or that sick role is determined by alternative environmental factors.

Sarafino (1990) suggested that the experience of hospitalisation, leading to patients being placed in unfamiliar surroundings with little privacy or autonomy, effectively complicates patient's psycho-social transition to the sick role. According to Baltes *et al* (1983), this role confusion is resolved by patients producing role congruent behaviour based on cognitive expectations of rules and norms considered appropriate in the hospital setting. This issue was investigated by Lorber (1975), who explored the role expectations of over 100 hospitalised patients. These patients, a large majority of whom were over 40 years of age, had been hospitalised for elective surgeries ranging from routine, to moderately serious, to very serious. Role expectancies were measured by asking patients to rate the extent to which they agreed or disagreed with a number of statements. These statements were designed to elucidate the extent to which patients saw themselves as either active or passive agents within the hospital environment. Statements included: "The best thing to do in the hospital is to keep quiet and do what you're told" and "I co-operate best as a patient when I know the reason for what I have to do" (Lorber, 1975, p217). Participants agreeing with statements such as the first statement and disagreeing with statements such as the second statement were considered to believe that patients should adopt a more passive or conforming role and vice-versa.

Once the role expectancies of patients had been assessed, Lorber (1975) continued by assessing whether patient's expectancies related to their actual behaviour in hospital. This was undertaken by conducting a second interview on discharge. Findings showed that sick role beliefs upon admission predicted a patient's reported hospital behaviour. For example, patients who had passive beliefs on hospital admission, were less likely to argue with staff or complain about minor discomforts, instead being more inclined to adopt the passive and compliant role of 'the good patient.'

Relating these findings to LH theory, it could be argued that the prospect of impending hospitalisation may potentially lead some individuals to develop an expectation of future non-contingency. If true, this would imply that patients may be prone to LH from the moment they are admitted. However, before

this link can be truly established, more research into the control expectancies of patients prior to admission, with longitudinal assessment of performance throughout hospitalisation would be necessary.

The Instrumental Passivity Hypothesis (Baltes, 1982)

The 'instrumental passivity hypothesis' of Baltes (1982) essentially applies Skinner's (1962, 1974) 'operant conditioning theory' to the clinical setting. This theory derives from a series of well known 'Skinner box' experiments whereby it was found that the operant responses of animals (i.e. a rat pressing a bar) could be manipulated through the introduction of positive or negative reinforcement (e.g. food pellets (+ve reinforcement) or electric shocks (-ve reinforcement)). Baltes (1982), and Baltes *et al* (1983) suggested that the hospital environment submitted patients to a similar process, with independent behaviours being *negatively* reinforced by staff, whilst dependent behaviours were *positively* reinforced. Indeed, several studies have demonstrated the existence of such a process (Mikulic, 1971; Lester & Baltes, 1978; Barton, Baltes & Orzech, 1980, Baltes, 1996). For instance, Barton *et al* (1980) observed the interactions between thirty-six elderly nursing home residents and seventeen members of staff. Observations focused on self care events over twenty-three mornings with reference to five behavioural categories, as summarised below.

1/ Independent behaviours of older people:	The unaided performance of an Activity of Daily Living (ADL).
2/ Dependent behaviours of older people:	A resident's request for, or acceptance of assistance with an ADL.
3/ Independence-supportive behaviours of staff:	Behaviours of staff which elicit or encourage the independent undertaking of an ADL.
4/ Dependence-supportive behaviours of staff:	Verbal or physical behaviours of staff which elicit or encourage the resident's request for, or acceptance of, assistance with an ADL.
5/ Other behaviour	Behaviour unrelated with the above.

(Adapted from Baltes, 1996, p46)

Findings showed that the dependent behaviours of residents were most typically followed by 'dependence-supportive' behaviours from staff; whilst the independent behaviours of residents, were most typically followed by no response. These results led Barton *et al* (1980) to argue that dependent behaviours were being positively reinforced (through the provision of staff support), whilst independent behaviours were being submitted to a schedule of 'extinction.'

As a result of these findings, Baltes and Skinner (1983) and Baltes (1996) argued that hospital environments may not be as 'uncontrollable' for patients as Raps *et al* (1982) had previously suggested, but instead could often provide patients with 'controllable' conditions which are clear and easy to distinguish. Of these conditions Baltes (1996) wrote:

> *"Dependent behaviour, even if resulting from lack of control, can be instrumental. If dependency is followed by a systematic contingency, a person engaging in dependent behaviour will set the occasion for that contingency to occur and, therefore, will control the environment."* (Baltes, 1996, p79).

In other words, a patient whose behaviour (i.e. passivity) is consistently reinforced with an appropriate reward from staff (i.e. attending to a need), associates the behaviour with the reward. As a result of this association, patients may purposefully assume the behaviour (i.e. instrumental passivity) in an attempt to acquire the reward. Therefore, contrary to the theory of LH, the passive and dependent behaviours observed by Raps *et al* (1982), may well have resulted from patient's attempts to 'control' the environment (instrumental passivity), rather than patient's 'lack of control' within it (leading to LH).

Although Baltes' (1982) hypothesis is persuasive, it makes the assumption that *instrumental passivity* invariably leads to the patient's *intended outcome*. In reality, however, the patient's intended outcome depends heavily on how staff react to the patient's behaviour. For instance, Solomon (1982) suggested that the responses and rewards of carers, who maintain all the power, may be totally *independent* of a patient's needs or wants. From this perspective, the instrumental behaviour of patients may *not* facilitate the expected staff response. Solomon's (1982) account of patient/carer interaction is therefore one of 'non-contingency' rather than 'contingency,' conditions conducive with the development of LH.

Self regulated dependence (Baltes, 1996)

The self-regulated dependency model of Baltes (1996) holds that:

> *"Due to increasing losses in reserves and strengths, the elderly person is faced with the possibility of (a) giving up the activity or domain hampered by loss or weakness, (b) compensating for that weakness, or (c) becoming increasingly dependent in those weakened or threatened domains so as to free energy for the pursuit of other domains and activities that have higher priority to the elderly person. With this latter strategy, she or he acknowledges losses and makes adjustments accordingly."*
> (Baltes, 1996, p145)

Therefore, when older people recognise that they no longer have the necessary resources to be able to fully cope, they become increasingly selective regarding which activities to undertake and which to avoid. This selectivity is influenced by several factors including environmental demands, individual motivations, skills, and biological capacities. By way of illustration let us take the example of Peter, an older institutionalised gentleman who, although capable of washing and dressing independently, finds the process both time consuming and energy sapping. This results in him being late for a much loved morning activities event with the other residents. Moreover, once Peter does arrive, he finds that he is so exhausted that he can barely concentrate. As a result, Peter has become more and more dependent with morning care, which is now completely undertaken by the nurse. Peter, however, is now no longer late for the activities group, and has enough energy to enjoy the event.

This short vignette demonstrates how Peter's dependency is caused by the reapportioning of resources, (in this case energy and time) from one activity (morning care) to another (the activities event). This transfer of resources is seen to result from a number of factors, firstly, Peter's love of the activities event (individual motivation); secondly, Peter's limited reserves of energy (biological capacity); and finally, the early start of the activities event (environmental demand). Thus Peter's self-regulated dependency with morning care, does not result from exposure to uncontrollability (leading to LH), but instead is an instrumental attempt to control the environment. This differs from instrumental passivity, however, as the behaviour is self directed, rather than being shaped through the reinforcing acts of nurses.

According to Baltes (1996), self-regulated dependency is yet another example of why it should not be automatically assumed that dependent behaviours in older people are the result of helplessness, lack of control, or dysfunctionality. Instead, dependent behaviours, such as instrumental passivity or self-regulated dependency, can actually provide older people with a means of control, increased levels of social interaction, and opportunities to choose where to convey their often limited resources.

Implications for research

The three above mentioned theories suggest alternative reasons for dependence in hospitalised and

institutionalised elderly. It is therefore important that future research avoids attributing the dependency of patients to a specific paradigm, until the pre-morbid causes of this behaviour have been established. In the case of LH, it is important to establish that dependence has resulted from exposure to non-contingency, similarly that its reversal is due to conditions antithetical to its production (i.e. exposure to contingency leading to an expectation of contingency), and finally, that the passive effects of competing theories have not interceded to bias these effects. Given these criteria, it is recommended that research should adopt an experimental design. Here, the affects of non-contingency (*helplessness training*), and contingency (*mastery training*) in an experimental group, may be compared with a control group that does not receive an intervention. If the experimental and control groups are equivalent (achieved through a process of randomisation), dependence, occurring as a result of alternative factors (sick role, instrumental passivity etc.), may be statistically nullified allowing the affects of helplessness training, if any, to be properly assessed.

LEARNED HELPLESSNESS REVERSAL IN THE HEALTH CARE SETTING

This section will critically review four strategies for the treatment of LH (Abramson *et al*, 1978, Peterson *et al*, 1993) from the perspective of the institutional/health care setting. Recommendations for changes to these strategies will be made where appropriate, and relevant research will be presented. Where necessary, the application of treatments in the clinical setting will be illustrated with short hypothetical vignettes.

The majority of treatments outlined in this section relate to an opposing process to LH termed Learned Mastery (Peterson, Maier & Seligman, 1993). Learned Mastery theory (LM) argues that where an individual is exposed to contingent circumstances (i.e. response/outcome dependence), they develop an expectation of contingency. In turn, this leads to an increased initiation of instrumental responding (motivational effect), and a greater awareness of contingent situations (cognitive effect), (see Figure 3.1), although no suggestion is made of learned mastery leading to emotional effects. Learned Mastery (LM) has been demonstrated in the animal research of Volpicelli, Ulm, Altenor and Seligman (1983), and Okayasu (1989) and is indicated in humans by research associated with some of the treatments mentioned below. These demonstrate how mastery may be induced through a variety of approaches.

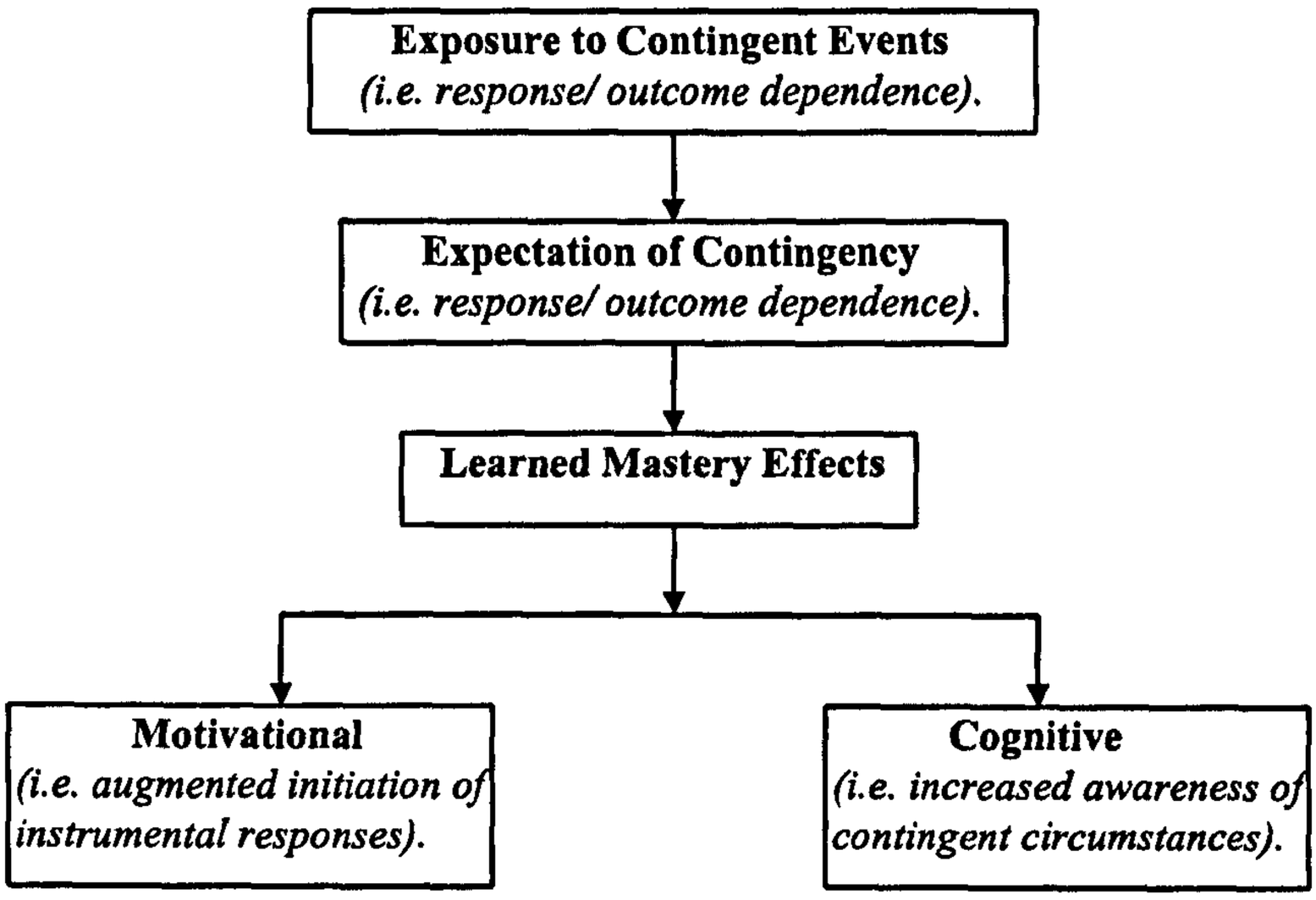


Figure 3.1 A Model of Learned Mastery Theory (adapted from Peterson *et al*, 1993).

Treatment 1: Reduce exposure to non-contingency and increase exposure to contingency.

Treatment 1 is adapted from Abramson *et al* (1978), where it is suggested that therapists should "reduce the estimated likelihood for aversive outcomes and increase the estimated likelihood for desired outcomes" (Abramson *et al*, 1978, p69). This suggestion, however, makes no reference to the level of contingency or non-contingency of events, a factor which is crucial to LH theory. Instead, it is implied that aversive events lead to LH effects, whereas desirable events lead to LH reversal.

As previously mentioned, "bad events *per se* do not cause learned helplessness" (Peterson *et al*, 1993, p229), just as desirable events do not necessarily facilitate its reversal (see Eisenberger *et al*, 1974; Griffith, 1977; Avorn & Langer, 1982). Instead, it is the extent to which the outcomes of events, be they good or bad, are contingent upon an individual's responses, which ultimately influences expectation of control and thus the development of LH. Treatment 1 therefore has been adapted to read: *Reduce the individual's estimated likelihood of exposure to non-contingent events and increase the individual's estimated likelihood of exposure to contingent events*. By categorising events by their level of contingency, as opposed to desirability, this strategy becomes more sensitised to the reversal of LH.

Empirically, there are a number of studies which show how patient functioning may be augmented through the manipulation of the health care/institutional environment to increase patient exposure to contingent events (e.g. Schulz, 1976; Langer & Rodin, 1976; Rodin & Langer, 1977; Mercer & Kane 1979). For instance, Schulz (1976) randomly assigned forty-two older institutionalised people to one of four conditions regarding a series of social visits by college undergraduates. These conditions included a *'control'* condition, where the participant could determine both the frequency and duration of the visits they received; a *'predict'* condition, where participants were informed when the visit would occur, and the duration of the visit, but had no control over these details; a *'random'* condition, where participants were visited at random; and a *'no treatment'* condition where participants were not visited at all.

Participants in the intervention groups were visited an average of 1.3 times per week for a mean length of 50.8; 49; and 50 minutes for 'random,' 'predict,' and 'control' groups respectively. Schulz also attempted to hold the quality of visits as constant as possible between groups by directing the 'visitors' to communicate a set amount of introductory information prior to allowing patients to direct the content and direction of the conversation. The effects of the interventions were measured using a variety of Likert-type questionnaires submitted both pre- and post- intervention. These included an 'activities index,' and questions related to physical and psychological status.

Findings showed that participants in the 'control' and 'predict' groups displayed a number of significant differences compared to participants in the 'random' and 'no-treatment' groups (NB. Data from the *control / predict* and *random/ no treatment* groups were collapsed to form two groups). These differences included the following. 'Predict/ control' participants: perceived themselves to be happier ($p<0.011$); had more 'zest for life' ($p<0.007$); and spent more time involved in active pursuits ($p<0.036$) than 'random/ no treatment' participants. Furthermore, 'control/ predict' participants were considered to be healthier than participants in the 'random/ no treatment' groups ($p<0.042$), and were found to be taking less medication ($p<0.02$).

This experiment provides a fairly robust assessment of a control-giving intervention on older

institutionalised people. Here, Schulz supplies a detailed commentary on his attempts to suppress bias, demonstrate pre-intervention equivalence between groups, and evaluate the validity of his findings. Other areas of his paper are not so vividly reported. For instance, the health status of participants was measured by gaining the opinion of the activities director, but to what extent was this individual qualified to give such information? Moreover, what criteria were used? Other measures, such as the measure of medication usage, are also vaguely presented.

The extent to which we can use this research as a demonstration of LM and/or LH reversal, is difficult to assess. This is primarily due to Schulz collapsing the dataset between control/predict and random/non- treatment groups prior to statistical analysis. Subsequently, any meaningful measure of the 'control' intervention is immediately confounded by the results of the 'predict' group. To get some indication of the effects of the control intervention, however, the reader may allude to the mean scores for individual groups which are thankfully presented in the results section. These scores show that the control group has superior mean scores in three of the four activity indicators (i.e. Activity Index; Changes in 'Usual Day') and all of the psychological indicators (i.e. Zest for Life; Happiness). As such, this paper provides an indication that exposure to contingency results in motivational LM effects and that these effects generalise to alternative tasks. However, these results are based on a very descriptive evaluation of the dataset, and therefore, do not demonstrate the effects of this treatment to a satisfactory level of statistical probability. As for the demonstration of LH reversal, Schulz's failure to link pre-intervention dependency with a previous exposure to uncontrollability means that participant dependency (if indeed this existed) prior to intervention, could have been caused by a number of factors (see 'competing theories of dependency'). Thus, it cannot be said that Schulz demonstrates LH reversal with confidence.

Finally, Schulz recommends the strategy of increasing environmental control as a general means of increasing activity and well being of older people. However, whilst this treatment may be effective for the majority of older people, there are limitations to its utility. For instance, it has been suggested that with increasing age, greater control over activities, circumstances, or health may sometimes have negative consequences in the form of stress, worry, and self blame (Averill, 1973; Brickman,

Rabinowitz, Karuza, Coates, Cohn & Kidder, 1982; Rodin, 1986). It may therefore be necessary for health care workers to assess the extent to which older people want autonomy over their lives before exposing them to large amounts of environmental control. Indeed, where such an assessment is omitted, the sudden provision of a highly contingent experience may simply result in the substitution of old problems for new.

Treatment 2: Negotiate realistic goals

Treatment 2 is adapted from Abramson *et al* (1978) where it was originally suggested that the therapist should "make the highly preferred outcome less preferred" (Abramson *et al*, 1978, p69). This treatment, however, once again fails to mention the contingency between responses and outcomes. Nevertheless, the strategy of Abramson *et al* (1978) for achieving this outcome, for instance by assisting the helpless individual to construct more realistic goals and norms, may be important in increasing their exposure to contingent circumstances. For example, whilst an individual's goals remain unrealistically high, efforts to obtain them may constantly fail. As such, the individual consistently exposes him/herself to non-contingent circumstances. However, by resetting goals, so that they are more achievable, the individual would enhance his/her chances of success resulting in increased exposure to contingent circumstances. This may be exemplified in the health care setting by the following vignette:

> *Max, a 75 yr old man, was recently admitted to a rehabilitation unit after suffering from a stroke. Although the stroke had not affected his language, it had left him with a dense hemiplegia of his left side, and problems with spatial perception. On admission, Max's nurse had asked if he had any goals with regard to his future rehabilitation. Max replied that he disliked people having to do things for him, and desperately want to be able to dress independently. However, Max's subsequent attempts at dressing had invariably failed due to the effects of the stroke, a situation which had recently led Max to all but give up with this activity.*

This vignette illustrates how Max's goal of 'independence with dressing' is set too high and his responses have therefore failed to secure the intended outcome. This response-outcome independence has subsequently led to an expectation of non-contingency and motivational LH effects.

> *As a result of Max's difficulties with dressing, the nurse suggested that Max's goal of independence with dressing was unrealistic in the short term, however, Max was able to manage some aspects of his dressing before requiring help. It was therefore suggested that the event of dressing should be broken down into a series of smaller, more manageable short-term goals. These goals were determined in negotiation with the patient (i.e. 'self-care with buttoning a shirt', an activity with which Max was 'almost' independent).*

By breaking down the event of dressing into smaller more manageable components, Max's responses are more likely to lead to an appropriate outcome. This more contingent experience would lead Max to develop an expectation of future control, thus reversing previous LH effects.

The effects of goal-setting on performance have been known for some time. Indeed the recognition that goal setting can augment performance may be traced back to the industrial philosophies of Frederick Taylor (1911/1967) and the Scientific Management Movement. Early academic literature in this field (1969-1980) was reviewed by Lock, Shaw, Saari, and Latham (1981). They suggested that "*the beneficial effects of goal setting on task performance is one of the most robust and replicable findings in the psychological literature*" (p145). For instance, 90% of the studies reviewed showed that specific and challenging goals lead to higher performance than unstructured and unchallenging goals (i.e. 'do your best'), or no goals. These performance effects were found to occur due to four main mechanisms: the direction of attention and action, the mobilisation of energy or effort, the prolonging of effort over time, and the motivation of the individual to develop relevant strategies over time (Lock *et al*, 1981).

Research has also emerged related to goal-setting with patients, especially collaborative goal setting. For instance, it has been shown how patients who are active partners in shaping their treatment goals have better treatment outcomes than patients who have goals imposed upon them (Neistadt & Marques, 1984; Czar, 1987; Neistadt, 1987; Shendell-Falik, 1990; Blair, 1995). For instance, Blair (1995) based his research in three residential nursing homes, each home being randomly assigned to one of three experimental conditions. In one home (condition one) he submitted nurses to a two week training programme aimed at developing mutual goal setting skills. Topics included the determinants of dependency in residents, resident involvement in treatment planning, development and implementation of treatment plans, preparation of follow-up treatment guides and assessment of goal attainment. Nurses in the second home (condition two), however, only received training on follow-up goal attainment. Therefore, nurses in 'condition one' represented the mutual goal-setting intervention, whilst nurses in 'condition two' represented routine nursing care. Nurses in the third home (condition three), were trained in mutual goal setting and behaviour modification.

Staff were then assigned to the residents in their respective nursing homes as normal, although goal setting was conducted differently in each setting. For instance, nurses in condition one met with the residents at predetermined times and mutually developed and evaluated their nursing care plans, whereas nurses in condition two developed and evaluated the resident's care plans independently. The impact of these interventions on three pre-selected participant goals was then assessed using Goal Attainment Scaling (GAS), (Kiresuk & Sherman, 1968) at two and six weeks following the training course. Findings showed that participants who mutually developed and evaluated goals with staff made significant improvements in goal attainment compared with participants whose goals were developed and evaluated by staff alone ($p<0.05$).

In sum, although research in this domain demonstrates that collaborative goal setting leads to gains in ADL performance, the actual psychological processes by which this is achieved are not clear. For example, collaborative goal setting does not appear to directly increase the patient's exposure to, or expectation of contingency, thus it is difficult to suggest with confidence that it leads to the development of LM. Moreover, the link between collaborative goal setting and LH reversal is equally unclear. This is due to pre-intervention dependency not being linked with a prior exposure to non-contingency. As such, the participants dependent state could have resulted from a range of 'intrinsic' or 'extrinsic' factors (see section 'competing theories of dependency').

Treatment 3: Prompt appropriate responses

Treatment 3 asserts that where helpless individuals fail to initiate relevant instrumental responses, they should be prompted to do so. For instance, Abramson *et al* (1978) imply that through prompting, helpless people relearn that their responses can lead to outcomes. This, in turn, can lead to positive effects on expectation of contingency and thus to increased independence. In the health care setting, prompting is commonly used as a key component in the teaching of new skills (Hudson & Macdonald, 1986). Three types are commonly used, *physical* (i.e. guiding a persons hands towards a task); *gestural* (i.e. placing a finger to your lips to suggest that an individual remain quiet); and *verbal* (giving verbal directions such as 'put your left hand into the jumper').

Empirically, several studies have shown the effectiveness of prompting in the health care setting (Rinke, William, Lloyd & Smith-Scott, 1978; Bunck & Iwata, 1978; Dy, Strain, Fullerton & Stowitschek, 1981; Burgio, Engel, McCormick & Hawkins 1988; Gotestam & Melin, 1990; Stock & Milan, 1993; Blair, 1995; Coyne & Hoskins, 1997). For instance, Coyne and Hoskins (1997) assessed the effects of directed verbal prompts on the eating behaviours of 24 older dementia sufferers in a 60 bedded dementia unit. They hypothesised that verbal prompts would increase independence with the eating of solid and liquid foods. Participants in the experimental group thus received verbal prompts (e.g. "Pick up the spoon") over a series of nine consecutive meals. Prompts were administered (where necessary) according to a fixed interval schedule (i.e. one minute after the provision of food, and thereafter at 1 minute intervals) and were followed by positive verbal reinforcement where eating cycles were completed (e.g. "That's right"). Participants in the control group received no treatment.

Eating performance was assessed pre-intervention and on two post-intervention occasions (e.g. immediately after treatment and seven days following treatment). Assessment used a Level of Eating Independence scale (LEI), (Coyne & Hoskins, 1997) which placed participants into one of four categories. These categories were determined according to the level of prompting and/or assistance required. Findings showed that eating performance in the experimental group significantly improved on the LEI scale compared with the control group ($P<0.011$). Thus verbal prompting was considered to be an effective means of improving eating performance. It should be further noted that no significant difference was found between the two post-intervention tests in the experimental group thus indicating that the effects of the treatment were retained by the participating dementia sufferers.

This study demonstrates how 'prompting' can stimulate patients into becoming more aware of the contingency of their situation, leading to increases in instrumental responding consistent with LM theory. The reversal of LH, however, cannot be deduced from this study (nor others in this domain) due to the authors failure to establish that the unresponsiveness of patients, prior to intervention, was due to LH effects. This unresponsiveness may therefore have been caused by a range of alternative dependency inducing factors (see 'competing theories of dependency). In fairness to the authors, however, the linkage of prompting with LH reversal was not the main purpose of this study.

Treatment 4: Provide information about the contingency of events

Treatment 4 (Peterson *et al*, 1993), which asserts that therapists should instruct individuals about the contingency of future events, was influenced by the research of Thornton and Powell (1974). This research found that student participants who had been exposed to non-contingent shocks during a choice reaction time task (training phase), reacted significantly slower in a transfer motor task (test task) than subjects previously exposed to contingent shocks ($p<0.01$), (i.e. LH effects). However, in a second experiment, participants, who had previously been exposed to the same helplessness training, were informed that they would be able to *control* shocks on the later presented test task. This intervention led to them performing better than those in the 'controllable' (p=NS) and 'no-pre-treatment' ($p<0.05$) conditions, indicating a change in expectation from non-contingency to contingency. LH may therefore be alleviated by merely informing individuals that they are 'in control' of a specific event.

To date the effectiveness of this treatment, both in terms of its induction of LM and reversal of LH, has not been shown within the hospital or institutional setting, although the research of Langer and Rodin (1976), and Mercer and Kane (1979) provide an insight into this issue. For example, Langer and Rodin investigated an intervention designed to encourage elderly nursing home residents to feel more control and responsibility for day-to-day events. For the purposes of experimentation, participants were grouped according to their floor of residence. Participants on the first floor (experimental group, n=47) were then subjected to a speech made by the home manager. This speech emphasised that residents should take responsibility for themselves, it also suggested that a movie would be shown on two nights of the following week and that residents should decide which night they wanted to go. Furthermore, each resident was told to choose among a selection of decorative plants, it was then suggested that residents were responsible for the watering and care of these plants. Participants were therefore given an expectation of control over events affecting their lives.

Participants on the second floor (comparison group, n=44) were also privy to a speech from the home manager, but this time the manager emphasised the *staff's* responsibility in caring for them. They were then handed a plant and told that whilst the plants were theirs to keep, the staff would water and care

for them. Finally, they were informed about the movies and informed that they would be told later what night they were scheduled to see it. Participants were therefore given an expectation that staff would be in control over events affecting their lives.

Participants were assessed using two questionnaire measures administered one week pre, and one week post- intervention. Questionnaires measured the extent to which participants perceived control over general events in their lives, and how happy and active they felt. Participants were also rated as to their level of awareness by a research assistant who was unaware of the experimental hypothesis. Results showed that residents in the experimental group became more active ($p<0.05$) and reported feeling happier ($p<0.01$) than residents in the comparison group. They also showed significant improvements in alertness ($p<0.025$) and willingness to participate in nursing home activities (general improvement: $p<0.005$).

In a follow-up study conducted 18 months later, Rodin and Langer (1977) assessed the health and psychological status of participants in the original study. These variables were measured using rating scales completed by two nurses and a medical practitioner. Mortality rates of participants during the 18 month period post intervention were also recorded. Findings showed that participants in the experimental group had higher health ($p<0.05$) and activity patterns ($p<0.05$) than those in the comparison group. It was also shown that whilst mortality rates in the experimental group 18 months post intervention were 15% (n=7), rates for the comparison group were significantly higher at 30% (n=13) ($p<0.01$). Rodin and Langer concluded that age related decline in older people can be slowed or even reversed by environmental manipulations designed to increase their control.

Langer and Rodin's (1976) study may be criticised regarding a number of issues. Firstly, the author's 'experimental group' intervention has two components, both of which relate to potential LH treatments. These treatments are: - 'Treatment 5' (tell patients that they are in control over future events, i.e. the home managers speech); and 'Treatment 1' (increase the patient's likelihood of exposure to contingent events, i.e. the plant and the movie). Subsequently, these treatments confound one another, thus preventing a separate evaluation. (NB. The research of Mercer and Kane (1979),

which is a partial replication of Langer and Rodin's procedure, also fails to separate these interventional components). Secondly, given that the research groups were not determined on the basis of random allocation, but instead by floor of residence (Floor 1 = Group 1; Floor 2 = Group 2), Langer and Rodin paid very little attention to the potential differences between the floors with regard to patient care. It is therefore tempting to ask the following:

- Were the nursing teams stable or did they rotate between floors?
- Did the teams on either floor differ regarding staff/patient ratio, skill mix, or clinical qualifications?
- Was there any evidence of nurse 'reactivity' as a result of being observed?
- Moreover, did the nurses caring for participants in the 'experimental group' respond more favourably towards them given their increasingly independent attitude?
- Lastly, although Langer and Rodin suggested that the nurses in the home were blind to the experimental manipulations, did the patients tell them? Moreover, did anyone care to check?

Langer and Rodin are tacit on these issues, and yet they represent important sources of potential bias.

A third criticism comes from Schulz (1980), who remarked that the results of Langer and Rodin's study are "clouded" (p264) by their failure to run a critical 'no treatment' control group.

As well as the methodological flaws mentioned above, Langer and Rodin's research also highlights some important ethical issues. For instance, not only did the authors fail to gain informed consent from participants in their experiment, they also failed to reverse any detrimental effects from their interventions post experimentation. These oversights may be deemed both unethical and highly irresponsible, especially given the mortality rates shown by the follow-up study of Rodin and Langer (1977).

Finally, some of the findings of Langer and Rodin's study are difficult to interpret from the perspective of LM and LH theory. Firstly, the fact that happiness and activity levels increased in the 'experimental group' (empowerment), and decreased in the 'comparison group' (disempowerment), is entirely consistent with LM and LH theories. However, if LM and LH were the causes of these effects, why were there no significant differences with regard to perception of control over events? For instance, the experimental group should have shown an increase in perception of control, and the comparison group a decrease, but this was not the case. Secondly, the attributional reformulation (Abramson *et al* 1978) argues that LH effects decay over time. This decay can happen relatively quickly depending on the type of helplessness training submitted (i.e. less than 24 hours in the study of Thornton & Powell

1975). Why, therefore, were LM and LH effects still present in patients some 18 months after Langer and Rodin's (1976) original interventions? Do LM and LH effects decay at a much slower rate in older people? Were the effects of the original interventions perpetuated by staff through their adoption of empowering or disempowering care? Or were the effects due to some confounding variable or chance factor? Langer and Rodin's research poses more questions than it answers.

CHAPTER FOUR

CONCEPTUAL FRAMEWORK

INTRODUCTION

LH and LM are substantive psychological theories, and as such their adaptation within the field of health care may potentially play an important role in providing vital knowledge for practice. However, whilst the adaptation of such theories from related disciplines can prove fruitful, there are a number of associated risks. Firstly, substantive theories may contain untested or ambiguously defined components, and as such, may not be as 'evidence based' as they seem. It is therefore wise to test a theory's validity from the perspective of health care, prior to applying it to practice. This, however, leads to a secondary risk, the shallow adaptation of substantive theories to provide an overall orientation for health care research. Studies such as these give the appearance of being guided by theory, yet their hypotheses may show no resemblance. Ultimately, this can lead to the production of isolated findings which cannot be easily generalised.

It is therefore essential that any initial links with substantive theories are preserved throughout the research process, a situation in which the conceptual framework plays a pivotal role. The aim of this conceptual framework is therefore to directly extend the theoretical and empirical foundation of LH and LM theory within the domain of health care. This will involve presenting conceptual and operational definitions for both LH and LM theories, as well as linking these theories with relevant health care related concepts. The second part of the chapter will introduce the aims and objectives of the experimental and exploratory phases of this thesis prior to evaluating the limitations of health care research related to the domains of LH and LM. This evaluation will be followed by the presentation of a series of research questions, propositions and hypotheses.

CONCEPTUAL DEFINITIONS OF LEARNED HELPLESSNESS AND LEARNED MASTERY

The definitions presented below aim to convey the general meaning of LH and LM theories. These definitions will be accompanied by a series of notes the aim of which is to either clarify ambiguous

terms, or relay additional theoretical perspectives which are not conveyed by the definitions themselves.

Learned Helplessness

> *"Experience with uncontrollable events* **(1, 2)** *can lead to the expectation that no response in ones repertoire will control future outcomes* **(2, 3)**. *This expectation leads to motivational deficits (lowered response initiation and lowered persistence), cognitive deficits (inability to perceive existing opportunities to control outcomes), and in humans, emotional deficits (sadness and lowered self esteem)* **(4)**. *These deficits are collectively known as learned helplessness deficits* **(5)**."
>
> (Nolen-Hoeksema, Seligman & Girgus, 1986, p435)

Note 1 (LH)
The controllability of events has also been defined in terms of 'contingency' and 'non-contingency' (Seligman, 1975). These terms refer to "*the degree of relationship between any two events...* (For instance,*)... the individual's responses and some outcome or reinforcer*" (Alloy & Abramson, 1980, p64). Here, 'contingency' (relating to controllable events) refers to outcomes which are dependent on an individual's responses, i.e. "*The contingency between the response and the reinforcer: the dependency or correlation between the two*" (Peterson *et al*, 1993, p21). Non-contingency, on the other hand, (relating to uncontrollable events) refers to "*the independence between responses and outcomes*" (Alloy & Abramson, 1980, p66).

Note 2 (LH)
Uncontrollable events are not necessary for the development of LH, as Abramson *et al* (1980) suggest: "*Only the expectation of helplessness is necessary to produce the associated deficits, regardless of how this expectation is acquired*" (Abramson *et al*, 1980, p18). Demonstrated empirically by (Brown & Inouye, 1978; DeVellis, DeVellis & McCauley, 1978).

Note 3 (LH)
Expectation of non-contingency is influenced by the individual's attributional explanation of an event (Abramson *et al* , 1978). This explanation relates to three dimensions: Internal/External (*"Is my helplessness due to me, or due to other people or things?"*), influencing changes in the individual's level of self esteem; Stable/Unstable (*"Will my helplessness last forever, or is it only temporary?"*), influencing the longevity of LH effects; and Global/Specific (*"Will my helplessness affect many events in my life, or just this specific event?"*), influencing the generalisation of LH to alternative tasks.

Note 4 (LH)
Not all exposure to non-contingency results in emotional affects. For instance, Eisenberger, Kapan and Singer (1974), and Griffith (1977) found that non-contingent *positive* events lead to motivational and cognitive effects in the absence of a depressive affect. Indeed, Seligman (1999) remarks that the effects of non-contingency on mood "*could well depend on the valence of the event,*" and that LH only directly deduces motivational and cognitive effects (Seligman, 1/5/99, www).

Note 5 (LH)
LH effects may generalise to alternative controllable situations. "*Learned helplessness is mediated by particular cognitions acquired during exposure to uncontrollable events and inappropriately generalised to new situations*" (Peterson *et al*, 1993, p229).

Learned Mastery

> *"If animals* **(1)** *represent the degree of contingency between their behaviour and outcomes, then prior exposure to controllable events might be expected to facilitate their subsequent learning. Learned mastery as well as learned helplessness ought to exist* **(2, 3)**. *Just as expectations about non-contingency should reduce incentive motivation and interfere with the perception of contingencies, expectations about future contingency should increase incentive motivation and augment the perception of contingencies* **(4, 5)**."
>
> (Peterson *et al*, 1993, pp54-55)

Note 1 (LM)
This literature review found no human studies from the 'LH paradigm' considering LM subsequent to an individual's exposure to contingent events. Ironically, there is more evidence for this association within health care literature than psychology (i.e. Schulz, 1976; Langer & Rodin, 1976; Mercer & Kane, 1979; all reviewed earlier).

Note 2 (LM)
Learned Mastery is presented as being the antithesis of LH. For instance, in one of the few studies to assess this concept, Volpicelli *et al* (1983) suggested of their findings "*prior experience with control over an aversive event leads to both increased persistence of shock-motivated responding and facilitation in learning response-outcome associations. These results are the opposite of the motivational and associative effects which are induced by uncontrollable events*" (Volpicelli *et al*, 1983, pp217-218), (N.B. this research was conducted using animal subjects).

Note 3 (LM)
As with the definition of LH theory, LM theory indicates that it is the prior exposure to events that leads to associated effects. However, as mentioned in Note 2 regarding LH, *only the 'expectation' of non-contingency is necessary to produce LH effects*. If LM is the opposite of LH, as is proposed (see Note 2 *LM*), then the principle determinant of behavioural effects in LM ought to be an expectation of contingency. Indeed, the positive effects of changing expectation of control in the direction of contingency, in the absence of exposing participants to contingent events, have been demonstrated by Thornton and Powell (1974), (mentioned earlier).

Note 4 (LM)
LM theory is tacit regarding both the emotional affects of developing an expectation of 'contingency,' and the possible influences of attributions. Regarding emotional affects, Peterson (1999) writes that an "E*xpectation of contingency leads to the absence of depression, which may or may not entail happiness*" (Peterson, 1/5/99, www). Regarding attributional influences, it seems reasonable to propose that if exposure to non-contingency regarding LH is influenced by attributions, then exposure to contingency regarding LM should also be influenced by this process.

Note 5 (LM)
LM effects have been shown to generalise to alternative tasks and situations in animals (Volpicelli, *et al*, 1983)

OPERATIONAL DEFINITIONS OF LEARNED HELPLESSNESS AND LEARNED MASTERY

The definitions in this section aim to delineate the motivational and cognitive variables associated with LH/LM theories. Following this, an outline of procedures used to measure these variables will be presented with relevant examples from the literature. Meanwhile, the depressed affect proposed by LH theory will not be reviewed as it does not relate to the later proposed rationale. The criteria for this decision are given below: 1/ Seligman (1999) suggests that LH only *directly* deduces motivational and

cognitive effects and that the effects of non-contingency on mood depend upon the 'valence' (positive or negative) of the event (see Note 5 (LH)); 2/ The research of Eisenberger, Kapan and Singer (1974), and Griffith (1977) suggests that exposure to positive non-contingency (positive valence) leads to the presence of motivational and cognitive LH effects in the absence of a depressed affect. (See Note 5 (LH)); 3/ The proposed thesis will evaluate the effects of positive non-contingency, thus according to points 1 and 2, the 'depressed affect' is not a relevant variable; Finally, 4/ according to LM theory, exposure to contingency *may* not result in an emotional affect (see Note 4 (LM)).

Learned Helplessness

1/ The Motivational LH Effect

> *a/ "The motivational deficit consists of retarded initiation of voluntary responses and is seen as a consequence of the expectation that responding is futile."*
> (Abramson, Garber & Seligman, 1980, p4)

> *b/ "Experience with uncontrollable events can lead to ... motivational deficits (lowered response initiation and lowered persistence)."*
> (Nolen-Hoeksema *et al*, 1986, p435)

> *c/ "Helplessness training reduces motivation to initiate instrumental actions for moulding the environment."* (Mikulincer, 1994, p15)

Summary definition.
The motivational LH effect relates to the individual's retarded initiation of voluntary instrumental responses.

2/ The Cognitive LH Effect

> *a/ "The cognitive deficit consists of difficulty in learning that responses produce outcomes. If one has acquired a cognitive set that X is irrelevant to Y, then it will be more difficult for one to later learn that X's equal Y's when they do."*
> (Abramson, Garber & Seligman, 1980, p4)

> *b/ "Experience with uncontrollable events can lead to ... cognitive deficits (inability to perceive existing opportunities to control outcomes)"*
> (Nolen-Hoeksema *et al*, 1986, p435)

> *c/ "The cognitive deficit has been hypothesised to be manifested in the extent to which subjects fail to repeat successful responses in next trials on an escape task."*
> (Mikulincer, 1994, p15)

Summary definition.
The cognitive LH effect relates to the individual's *failure to recognise, and thus successfully respond to, contingent situations.*

Learned Mastery

1/ The Motivational LM Effect

a/ "Prior experience with control leads to.. (an).. increased persistence of shock-motivated responding (to achieve escape). The opposite of the motivational effects which are induced by uncontrollable events"
(Volpicelli, Ulm, Altenor & Seligman, 1983, p218)

b/ "Expectations about future contingency should increase incentive motivation."
(Peterson *et al*, 1993, p55)

Summary definition.
The Motivational LM effect relates to the individual's increased motivation to initiate voluntary instrumental responses to control the environment.

2/ The Cognitive LM Effect

a/ "Prior experience with control leads to (a) ... facilitation in learning response-outcome associations. The opposite of the associative effects which are produced by uncontrollable events" (Volpicelli, Ulm, Altenor & Seligman, 1983, p218)

b/ "Expectations about future contingency should augment the perception of contingency"
(Peterson *et al*, 1993, p55)

Summary definition.
The cognitive LM effect relates to the individual's augmented ability to recognise, and thus successfully respond to, contingent situations.

THE MEASUREMENT OF LEARNED HELPLESSNESS AND LEARNED MASTERY

The above definitions of motivational and cognitive effects suggest that the variables of LH and LM relate to two distinct performance classes, firstly the production of instrumental responses (*motivational effect*), and secondly, the recognition of *contingent situations* (*cognitive effect*). As these variables are the same for both theories, it stands to reason that LH and LM performance effects, which are thought to be symmetrical (Peterson *et al*, 1993, p54), should be measured by the same instrumentation. Examples of suitable instrumentation are discussed below focusing predominantly on LH theory. This restriction is unavoidable given the lack of empirical literature concerning LM (see Note 1, LM). However, it is hoped that the resulting statement on performance measurement will be appropriate for both theories.

Established Measures of LH Effects

A number of performance tasks have been used to measure LH effects in humans. These include psycho-motor tasks (i.e. shuttle box task, Hiroto, 1974; Hiroto & Seligman, 1975; and jigsaws, Avorn & Langer, 1982) and cognitive problem solving tasks (i.e. anagrams, Miller & Seligman, 1975; Benson & Kennelly, 1976; intelligence tests, Thornton & Jacobs, 1972; block designs, Dweck & Reppucci, 1973; digit letter substitution, Dweck & Bush, 1976; discrimination learning, Eisenberger, Park & Frank, 1976; and Raven matrices, Roth & Bootzin, 1974; Roth & Kubal, 1975). This breadth of available tasks led Mikulincer (1994) to remark:

> *"There is no standard test that defines the test phase of LH experiments. Any task that requires the selection, organisation, and implementation of voluntary responses to solve a problem can be used to examine the performance effects of uncontrollable events"*
> (Mikulincer, 1994, p14)

This statement also holds for the measurement of LM effects, whereby the general task requirements suggested by Mikulincer (1994), should directly mirror the types of performance gains predicted by this theory.

Criteria for Measuring Motivational and Cognitive LH Effects:

Taking the example of an anagram task used by Miller and Seligman, (1975) the following criteria were used to measure motivational and cognitive effects:

> *"In this task* [a contingent anagram task] *three dependant measures have generally been employed: (a) number of trials to escape (anagram solution) criterion, (b)* [the overall] *number of failures to escape (solve anagram), and (c) mean escape (anagram solution) latency. The measure of number of trials to criterion was hypothesised to operationalise the cognitive deficit, and the latter two measures were hypothesised to operationalise the motivational deficit"* (Cited in Miller & Norman, 1979, p95)

Two other methods of measuring LH effects are also important. Firstly, Mikulincer (1994) proposed that the cognitive effect may be measured according to the participant's failure to repeat successful responses on subsequent test trials. Secondly, Volpicelli *et al* (1983) measured motivational effects by simply observing the duration of voluntary instrumental responding over a given time frame.

The use of criteria such as these to measure motivational and cognitive effects was plagued with problems. Firstly, from the motivational perspective, it was suggested that a participant's lack of response during test trials should not necessarily be interpreted as a lack of motivational drive. For example, according to Levis (1976), individuals can be in a relatively high state of drive and yet

remain inactive. Secondly, from the cognitive perspective, a failure to continue making successful responses having reached criterion (i.e. task solution) on a previous trial, may relate to a number of alternative cognitive interferences, e.g. lack of concentration or distraction (Mikulincer, 1994). Finally, the use of response latency as a measure of *cognitive* effects (i.e. the participant's awareness of a tasks contingency), may also be seen from the perspective of *motivational* effects (i.e. the participant's motivation to respond), (Douglas & Anisman, 1975). As such, it may be concluded that motivational and cognitive LH effects are difficult to tease apart for the purposes of measurement.

Today, the prevailing opinion regarding the measurement of motivational and cognitive LH effects seems to be an acceptance that performance in test tasks may reflect motivational effects, cognitive effects or both. This view is epitomised by the following quotations:

> *"We are left with the conclusion that uncontrollability disrupts task performance, but we cannot say with conviction that this is due to a disruption of problem-solving attempts (a motivational deficit), or an inability to see a solution when it presents itself (cognitive deficit)"* (Peterson *et al*, 1993, p109)

> *"In general, it is difficult to separate the motivational and cognitive components of LH deficits in humans. The performance deficits observed following helplessness training may have a cognitive basis, a motivational one, or both. The only thing that is certain is that LH deficits reflect problems in meeting task demands in a problem-solving setting. These problems could be manifested in retarded responses, inaccuracy, and/or an inability to figure out the solution to a problem."* (Mikulincer, 1994, p16)

Therefore, rather than attempting to separate motivational and cognitive LH effects, they are measured together as a function of the individual's overall performance score. As such, individuals scoring poorly on a particular task following exposure to non-contingency may be deemed to be demonstrating motivational and cognitive LH effects. It also follows that individuals scoring well on a particular task may be deemed to be demonstrating motivational and cognitive LM effects. This of course, is assuming that all appropriate experimental controls are in place.

One further issue which is relevant to the measurement of LH and LM effects regards the generalisation of these effects to alternative situations. Of this Mikulincer (1994) writes:

> *"LH effects are demonstrated if, and only if, subjects exposed to a training task in which responses do not control outcomes show performance changes in a later situation in which responses do control outcomes. The observation of performance changes in the original helplessness-training task is not an instance of LH effects. These changes become LH effects only when they are transferred to new controllable tasks"* (Mikulincer, 1994, p16)

There are essentially two issues expressed here. Firstly, LH (and LM) must be measured (i.e. during the test phase) using contingent circumstances. In other words, if a digit letter substitution task was being used to measure performance effects, feedback should be contingent on the participant's responses, not manipulated by the researcher. Secondly it is argued that the measurement of LH/LM effects should be undertaken using a different task (or situation) to the one in which these effects were induced. For example, according to Mikulincer (1994), the use of an anagram task during both the training and testing phases, would not measure LH or LM effects. Instead, he recommends the use of distinctly different task in both phases.

Summary statement.

1/ Use of an appropriate measure of LH and LM.

- *The measurement of LH and LM effects should be undertaken using a task which requires participants to select, organise, and implement voluntary instrumental responses to solve a problem.*

2/ Scoring criteria

The criteria for scoring LH or LM effects may relate to the following:

- *Number of trials to solve a task (i.e. reach 'criterion').*
- *Number of failures or successes in a multi-problem task.*
- *Mean response latency (i.e. the time between the onset of a stimulus and the occurrence of instrumental responding towards it).*
- *Overall duration of voluntary instrumental responding over a fixed time period commencing from the moment that a stimulus occurs.*

3/ Interpretation

- *Individuals scoring poorly following exposure to helplessness training may be considered to have demonstrated motivational and cognitive LH effects.*
- *Individuals scoring well on such a task following mastery training may be considered to have demonstrated motivational and cognitive LM effects.*

(N.B. Assuming that appropriate experimental controls are in place).

4/ Generalisation

- *Tasks or situations used to measure LH and LM effects should be contingent.*
- *Tasks or situations used to measure LH and LM effects should be different to those used during the training phase if generalisation is to be demonstrated.*

DISEMPOWERMENT AND EMPOWERMENT RELATED TO LEARNED HELPLESSNESS PARADIGM

In health care, the concepts of empowerment and disempowerment relate to two opposite forms of staff/patient interaction. Of these concepts, empowerment has become increasingly popular in nursing where it has been used in a variety of contexts and given an assortment of meanings (Gibson, 1991; Hagner & Morrone, 1995). In an attempt to synthesise these meanings, Gibson (1991) conducted a detailed concept analysis leading to the redefinition of empowerment from the perspective of health

care. This redefinition will act as a primary influence regarding the interpretation of empowerment within this thesis. It will also help to guide the definition of disempowerment, which should be the semantic opposite.

Disempowerment

Disempowerment defined

> *"The attitudes and actions of other people, combined with their neglect, actively disempower those who have some kind of 'difference,' overlooking their attempts at action and denying them a voice."* (Kitwood, 1997, p49)

> *"Disempowerment: not allowing a person to use the abilities that they do have."* (Kitwood, 1997, p46)

> *"To remove the power to act from a person."* (Concise Oxford Dictionary, 1995, p387)

The absence of empowerment is: *"powerlessness, helplessness, hopelessness, alienation, victimisation, subordination, oppression, paternalism, loss of a sense of control over one's life and dependency"* (Gibson, 1991, p355)

Summary Definition.
Disempowerment is the active process of impeding patients from asserting control over their lives.

Disempowerment and the causation of LH

This thesis proposes that disempowering care exposes patients to non-contingent situations. These non-contingent situations may ultimately lead patients to develop an expectation of non-contingency with associated LH effects (see the 'relational model' in figure 4.1).

Empowerment

Empowerment defined

> Empowerment is: "*A social process of recognising, promoting and enhancing peoples' abilities to meet their own needs, solve their own problems and mobilise the necessary resources in order to feel in control of their lives. Even more simply defined, empowerment is a process of helping people to assert control over the factors which affect their health.*" (Gibson, 1991, p359)

> Outcomes of empowerment include: *" self-efficacy, a sense of mastery, a sense of control, and improved quality of life."* (Gibson, 1991, p359)

Summary Definition.
Empowerment is the active process of assisting patients to assert control over their lives.

Empowerment and the causation of LM

This thesis proposes that empowering care exposes patients to contingent situations. These contingent situations may ultimately lead patients to develop an expectation of contingency with associated LM effects (see the 'relational model' in figure 4.1).

DEPENDENCE AND INDEPENDENCE RELATED TO LEARNED HELPLESSNESS PARADIGM

In health care, independence and dependence are seen as occupying the poles of a continuum of functional ability, especially an individual's ability to perform basic tasks associated with self-care (Katz, Downs, Cash & Grotz, 1970; Roper, Logan & Tierney, 1990). These tasks are referred to as Activities of Daily Living (ADL) in some of the following definitions.

Dependence

Dependence defined

> *"Dependency can be defined as requiring assistance with one or more activities of daily living*...(including)...*feeding, bathing, dressing, toiletting, ambulating, and transferring."*
> (Matteson, McConnell & Linton, 1997, p621)

Dependency is *"a characteristic of individual behaviour, such as being passive, accepting help, asking for help."* (Baltes, 1996, p *xv*)

The.. (dependent)*..relationship usually implies a degree of inequity between the dependent and the depended upon and is characterised by loss of control on the one part and the loss of personal freedom in the other.* (Davis, Laker & Ellis, 1997, p409)

'Intrinsic' causes-
"Dependency is the result of biological decline and ... ensuing loss of control; thus dependency is considered the norm in old age and valued negatively. This view is reflected in the concept of dependency as the product of physical decline."
(Baltes, 1996, p23)

'Extrinsic' causes-
Extrinsic causes *"reflect dependent behaviours as the outcome of previous and ongoing person-environment transactions and as an accumulation of various life events."*
(Baltes, 1996, p23)

Summary definition.
A patient is dependent with an Activity of Daily Living if they cannot perform it without supervision, direction, or active personal assistance.

Dependence resulting from LH

This thesis proposes that LH is an 'extrinsic' cause of ADL dependence in older hospitalised people. This process occurs in three stages: 1/ environmental; 2/ psychological; and 3/ behavioural (also see the 'relational model' in figure 4.1).

1/ The environmental stage relates to 'patient-environment transactions,' specifically those that expose patients to *non-contingent* or disempowering events.

2/ The psychological stage relates to the internalisation and attributional evaluation of experiencing non-contingency. This leads to the development of an expectation of non-contingency and LH.

3/ The behavioural stage relates to the outcome of the previous two phases whereby ADL performance is compromised (i.e. the individual becomes dependent) through: A/ the individual's retarded initiation of voluntary instrumental responses (motivational LH effect); and B/ the individual's failure to recognise, and thus successfully respond to, contingent situations (cognitive LH effect). These effects may generalise to alternative tasks.

Independence

Independence defined

> *"Independence in Activities of Daily Living is based on an evaluation of the functional independence or dependence of patients in bathing, dressing, going to the toilet, transferring, continence, and feeding... Independence means without supervision, direction, or active personal assistance. This is based on actual status and not ability. A patient who refuses to perform a function is considered as not performing the function, even though he is deemed able"* (Barkauskas, Stoltenberg-Allen, Baumann & Darling-Fisher, 1994, p847).

> *"Independence is most frequently associated with an individual's level of physical functioning and ability to perform the activities of daily living unaided"*
> (Davis, Laker & Ellis, 1997, p408)

Summary definition.
A patient is independent with an Activity of Daily Living if they can perform it without supervision, direction, or active personal assistance.

Independence resulting from LM

This thesis proposes that LM may alleviate LH induced dependence returning an individual to a more independent state of ADL functioning. This process occurs in three stages: 1/ environmental; 2/ psychological; and 3/ behavioural (also see the relational model in figure 4.1).

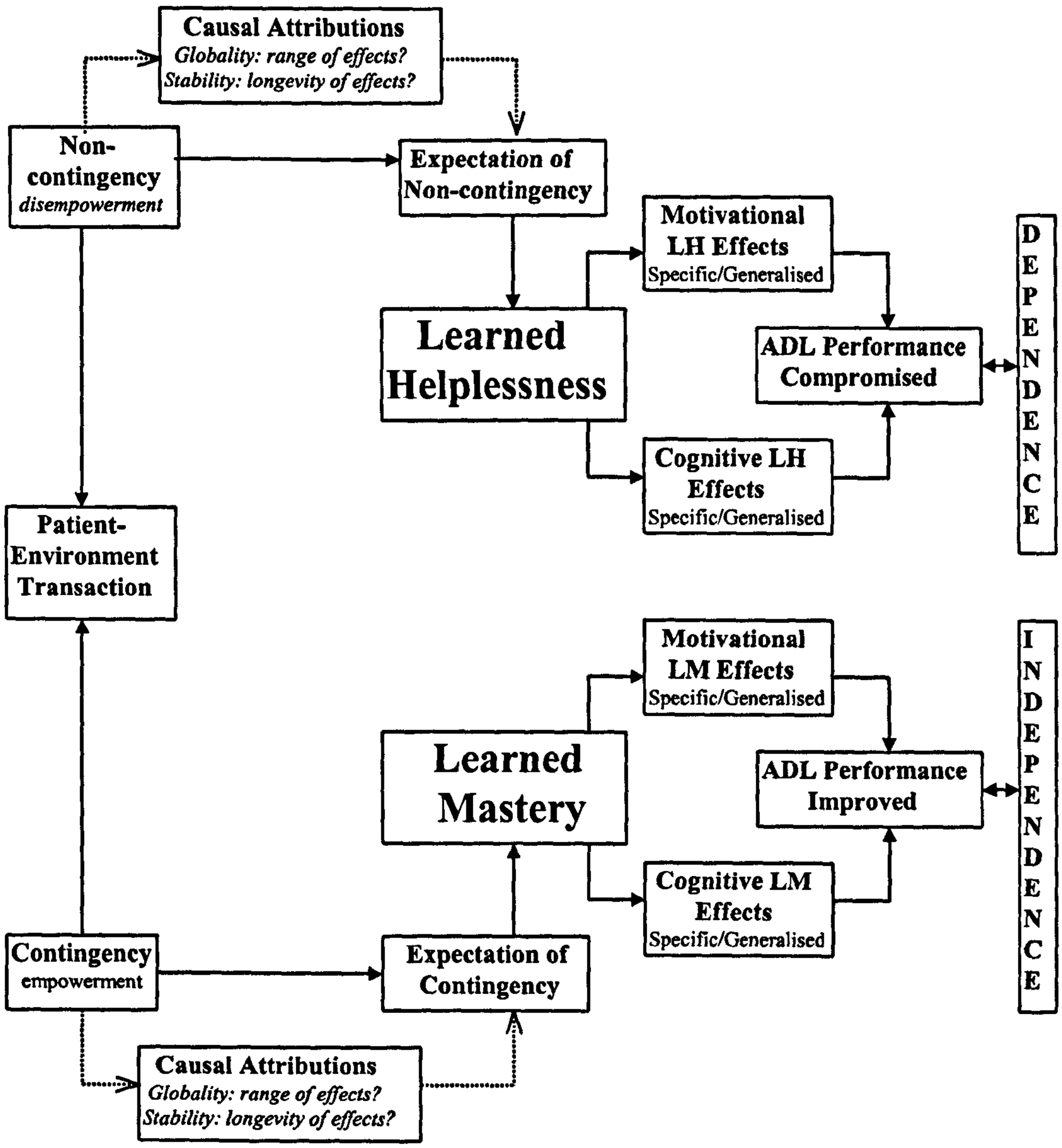


Figure 4.1 The Relationship Between LH and Dependence and LM and Independence.

1/ The environmental stage relates to 'patient-environment transactions,' specifically those that expose patients to *contingent* or empowering events.

2/ The psychological stage relates to the internalisation and attributional evaluation (see note 1) of experiencing contingency. This leads to the development of an expectation of contingency and LM.

3/ The behavioural stage relates to the outcome of the previous two phases whereby ADL performance is improved (i.e. the individual moves towards independence) through a combination of A/ the individual's increased motivation to initiate voluntary instrumental responses to control the environment (motivational LM effect); and B/ the individual's augmented ability to recognise, and thus successfully respond to, contingent situations (cognitive LM effect). These effects may generalise to alternative tasks.

EXPERIMENTAL FRAMEWORK

This framework will commence by stating the aims and objectives of the experimental component of this thesis. Following this, an overview of health care literature in the domains of LH and LM will be presented with reference to the following issues: 1/ LH as an explanation of dependency in older hospitalised people; and 2/ LM as a means of alleviating LH induced dependence. Literature gaps will be identified leading to the development of a series of researchable questions (see 'thesis map' figure 4.2). These questions will then be reformulated into specific propositions and hypotheses relative to the theoretical foundations previously presented.

Aims and objectives

Aims:

1/ To objectively investigate the onset of dependence in older hospitalised people from the perspective of learned helplessness (LH) theory.

2/ To objectively investigate the onset of independence in older hospitalised people from the perspective of learned mastery (LM) theory.

3/ To objectively investigate the alleviation of LH induced dependence in older hospitalised people from the perspective of learned mastery (LM) theory.

Objectives:

1/ To evaluate the relationship between increasing exposure to non-contingency within an Activity of Daily Living (ADL) and the induction of specific LH effects (i.e. ADL dependence) in older hospitalised people.

2/ To evaluate the relationship between increasing exposure to non-contingency within an ADL and the induction of generalised LH effects (i.e. performance deficits on an alternative psycho-motor task) in older hospitalised people.

3/ To evaluate the relationship between increasing expectation of contingency within an ADL and the induction of specific LM effects (i.e. increased ADL independence) in older hospitalised people.

4/ To evaluate the relationship between increasing expectation of contingency within an ADL and the induction of generalised LM effects (i.e. enhanced performance on an alternative psycho-motor task) in older hospitalised people.

5/ To evaluate the relationship between increasing expectation of contingency within an ADL and the alleviation of specific LH effects (i.e. increased ADL independence) in older hospitalised people.

6/ To evaluate the relationship between increasing expectation of contingency within an ADL and the alleviation of generalised LH effects (i.e. enhanced performance on an alternative psychomotor task) in older hospitalised people.

The development of research questions (Phase 1)

Regarding the application of LH to dependence, Peterson *et al* (1993) recommended that the researcher demonstrate three fundamental principles of the theory: 1/ previous exposure to uncontrollability; 2/ motivational effects, i.e. the retarded initiation of voluntary instrumental responses (resulting from an exposure to non-contingency); and 3/ 'inappropriate cognitions,' described as the generalisation of LH effects to alternative tasks (once again resulting from an exposure to non-contingency). The following section will outline the health care literature relating to these principles from the perspective of LH as an 'extrinsic' cause of dependency. Literature gaps will be identified followed by the presentation of relevant research questions and associated propositions. This process will be illustrated throughout in the thesis map (figure 4.2).

Previous Exposure to Uncontrollability.

Non-contingent events within the health care setting often relate to staff patient interactions and may be broadly categorised as having either a negative or positive valence. Events with a *negative* valence relate to carer interventions which force patients to accept circumstances against their will (as described by Clark, 1990). These events are aversive or unpleasant to experience, and may be described as non-contingent in so much as they expose patients to aversive outcomes independent of their responding. Exposure to such events, according to LH theory, is predicted to lead to the induction of motivational and cognitive LH effects, as well as an associated depressed affect. Events with a *positive* valence, on the other hand, relate to the over-assisting actions of carers (i.e. described by Lester & Baltes, 1978), which are non-contingent in so much as they produce outcomes which are independent of a patient's responses. These events may be considered to be non-aversive as they usually occur within the context of caring or helpfulness. From the perspective of LH theory, exposure

to such events is predicted to lead to the induction of motivational and cognitive LH effects in the absence of an associated depressed affect.

According to the recommendations of Peterson *et al* (1993), if LH theory is to be utilised as an explanation of a 'social problem,' participants must be shown to have been exposed to non-contingency. As this thesis aims to utilise LH in such a way (i.e. as an explanation of dependence in older hospitalised people), participants in the experimental phase must therefore undergo a helplessness training phase involving exposure to non-contingency. However, the submission of participants to events with a negative valence is clearly unethical, and, according to LH theory, will increase the probability of participants developing a depressed affect. A more ethical approach would be to use events with a positive valence such as the over-assistance of participants with a task or ADL.

Motivational and cognitive effects

Research demonstrating LH effects in hospitalised people is extremely scant. Indeed, only two studies were found which specifically consider this issue. Firstly, the research of Raps *et al* (1982), which demonstrated LH effects using a cognitive performance task submitted at one, three and nine weeks after admission. These effects were shown to increase commensurate with the patient's length of stay in hospital, and despite the resolution of their illness. However, the failure of Raps *et al* to relate these findings to the patient's previous exposure to uncontrollability in the hospital environment, called into question the issue of whether the performance deficits reflected LH or some other dependency inducing phenomenon. This issue was resolved by Avorn and Langer (1982) who exposed older nursing home residents to non-contingency by over-assisting them with a psycho-motor task (jigsaw puzzle). This led patients to display later performance deficits on the same task (conducted under contingent circumstances), these deficits being attributed to LH effects. However, Avorn and Langer tested their hypotheses under conditions likely to increase the probability of making a type one error. Therefore these findings should be regarded with caution.

Literature Gap

As this thesis aims to investigate the appropriateness of LH theory as an explanation of extrinsic dependence in older hospitalised people, an obvious extension of Avorn and Langer's (1982) research would be an evaluation of the effects of non-contingency using ADL performance as the dependent variable. For the purposes of research, the mealtime event (relating to the ADL of feeding) could be used with food and drink acting as the positive stimuli. Non-contingency could be provided through the 'over-assistance' of patients with the mealtime event, a circumstance which relates to health care in so much as similar events have been observed during staff/patient interactions in the hospital setting (Lester & Baltes, 1978). As in Avorn and Langer (1982), two comparison groups could be utilised, firstly, a 'no treatment' control, and secondly a learned mastery intervention, whereby participants are given an expectation of contingency with regard to the mealtime event (see Treatment 4). (NB. A more detailed review of the design and interventions will be given later in the methodology and methods sections).

Question 1

↓

Do older hospitalised people, who have been exposed to positive non-contingency (over assistance) within an ADL (feeding), demonstrate *specific* LH effects (motivational and cognitive effects / dependence in feeding) in a second condition where the performance of this ADL is contingent upon their responses?

Proposition 1

↓

Older hospitalised people, who have been exposed to positive non-contingency (over assistance) within an ADL (feeding), will demonstrate *specific* LH effects (motivational and cognitive effects / dependence in feeding) in a second condition where the performance of this ADL is contingent upon their responses.

Hypothesis 1

Older hospitalised people whose meal related responses have been automatically performed by a researcher (intervention #1; non-contingency), will:

- take significantly longer to initiate instrumental meal related responses,
- spend significantly less time engaged in instrumental meal related responses, and
- fail to reach criterion (putting food to lips) significantly more

in a contingent test condition where researcher assistance is delayed (1 min),
than an equivalent 'no treatment' control group, and a group who have previously been given an expectation of control regarding mealtime events (intervention #2; contingency).

Question 2

↓

Do older hospitalised people, who have been given an expectation of contingency regarding an ADL (feeding), demonstrate *specific* LM effects (motivational and cognitive effects/ independence in feeding) in a second condition where the performance of this ADL is contingent upon their responses?

Proposition 2

↓

Older hospitalised people, who have been given an expectation of contingency regarding an ADL (feeding), will demonstrate *specific* LM effects (motivational and cognitive effects/ independence in feeding) in a second condition where the performance of this ADL is contingent upon their responses.

Hypothesis 2

Older hospitalised people who have been given an expectation of control regarding mealtime events (intervention #2; contingency), will:

- initiate instrumental responses significantly more quickly,
- spend significantly more time engaged in instrumental meal related responses, and
- succeed in reaching criterion (putting food to lips) significantly more

in a contingent test condition where researcher assistance is delayed (1 min), than an equivalent 'no treatment' control group, and a group whose meal related responses have previously been automatically performed by a researcher (intervention #1, non-contingency).

Literature Gap

Research has yet to evaluate the generalisation of LH effects (i.e. the third fundamental principle of Peterson *et al*, 1993) to alternative tasks in hospitalised elders. For instance, Avorn and Langer (1982) used the same psychomotor task for both the induction and testing of LH effects, thus failing to evaluate the generalisation of LH. Mikulincer (1994) argues that the evaluation of LH should occur in a different task (or situation) to the one in which these effects were induced. As such, a 'psychomotor' task will be conducted to test the generalisation of LH and LM effects.

Question 3

↓

Do older hospitalised people, who have been exposed to positive non-contingency (over assistance) with an ADL (feeding), demonstrate *generalised* LH effects (motivational and cognitive effects) in a contingent psychomotor task?

Proposition 3

↓

Older hospitalised people, who have been exposed to positive non-contingency (over assistance) with an ADL (feeding), will demonstrate *generalised* LH effects (motivational and cognitive effects) in a contingent psychomotor task.

Hypothesis 3

Older hospitalised people whose meal related responses have been automatically performed by a researcher (intervention #1; non-contingency), will score significantly lower on a psychomotor task (WAIS-R-UK, Object Assembly Task), than an equivalent 'no treatment' control group, and a group who have previously been given an expectation of control regarding mealtime events (intervention #2; contingency).

Question 4

↓

Do older hospitalised people, who have been given an expectation of contingency regarding an ADL (feeding), demonstrate *generalised* LM effects (motivational and cognitive effects) in a contingent psychomotor task.

Proposition 4

↓

Older hospitalised people, who have been given an expectation of contingency regarding an ADL (feeding), will demonstrate *generalised* LM effects (motivational and cognitive effects) in a contingent psychomotor task.

Hypothesis 4

Older hospitalised people who have been given an expectation of control regarding mealtime events (intervention #2; contingency), will score significantly higher on a psychomotor task (WAIS-R-UK, Object Assembly Task), than an equivalent 'no treatment' control group, and a group whose meal related responses have previously been automatically performed by a researcher (intervention #1, non-contingency).

The development of research questions (Phase 2)

This thesis proposes that the alleviation of LH may be brought about through the induction of LM. This condition results from an individual's expectation of contingency, and may be initiated through a variety of treatments or therapies. Four such treatments are discussed in the literature review including: 1/ increasing the patient's exposure to contingency; 2/ negotiating realistic goals; 3/ prompting appropriate responses; and 4/ providing information about the contingency of events.

The following section will outline associated literature relevant to these four treatments prior to identifying potential literature gaps. Following this, the author will present relevant research questions with related propositions. This process will be illustrated throughout on the thesis map (see figure 4.2)

Treatment 1 (Abramson et al, 1978)

This treatment proposes increasing the patient's exposure to contingent events as a means of reducing LH. Studies relevant to this treatment include Langer and Rodin, (1976); Schulz, (1978); and Mercer and Kane, (1979). Of these, only the research of Schulz (1978) provides evidence of the effectiveness of this treatment. This is due to the other papers using two interventions in the experimental procedure i.e. increasing patient exposure to contingency (Treatment 1) and increasing expectation of control (Treatment 4), thus effectively confounding the independent variable.

The interpretation of the results from Schulz (1978) is also problematic as data from the 'control' condition (where the 'additional' events were contingent) and the 'predict' condition (where 'additional' events were merely predictable) were merged in the final analysis. As such, an evaluation of the effectiveness of Treatment 1 must be drawn from Schulz's descriptive data, which are reported separately for each group. These data indicate that by increasing patient exposure to contingent events, they show enhanced levels of activity consistent with LM theory. The alleviation of LH, however, was not demonstrated as participants had not been previously exposed to helplessness training. Subsequently, it is difficult to suggest that any inappropriate passivity prior to intervention was the result of helplessness as opposed to any other form of dependency.

Treatment 2 (Abramson et al, 1978)

This treatment proposes the use of goal setting as a means of reducing LH. Studies relevant to this treatment include Neistadt and Marques, (1984); Czar, (1987); Shendell-Falik, (1990); and Blair, (1995). It is argued that although research in this domain demonstrates that collaborative goalsetting leads to gains in ADL performance, the actual psychological processes by which this is achieved are not accounted for. For instance, collaborative goalsetting does not appear to directly increase the patient's exposure to, or expectation of contingency, thus it is difficult to suggest with confidence that it leads to

the development of LM. Moreover, the link between collaborative goalsetting and LH reversal is equally unclear. This is due to pre-intervention dependency not being linked with a prior exposure to non-contingency. As such, the participant's dependent state could have resulted from a range of 'intrinsic' or 'extrinsic' factors. It may therefore be concluded that literature in this domain fails to show that goalsetting can lead to LH reversal.

Treatment 3 (Abramson et al, 1978)

This treatment proposes that therapists 'prompt' patients to initiate appropriate responses as a means of reversing LH. Several studies employing such a tactic are cited in the literature review, i.e. Gotestam and Melin, (1990); Stock and Milan, (1993); Coyne and Hoskins, (1997). It is argued that studies in this domain demonstrate that prompting directly stimulates patients into becoming more aware of the contingency of their situation. In turn, the resulting expectation of contingency leads to increases in instrumental responding consistent with LM theory. However, with regard to LH reversal, these studies fail to demonstrate that the passivity of patients prior to intervention was due to LH as opposed to other forms of dependency reversal. As such, literature in this domain fails to show that prompting can lead to LH reversal.

Treatment 4 (Peterson et al, 1993)

Treatment 4 recommends instructing helpless patients about the contingency of future events thus challenging their inappropriately held expectation of *non-contingency*, the principle cause of LH. Through this process, individuals are guided to form a new expectation of *contingency*, thus leading to LM effects. The effectiveness of this treatment has been shown within the domain of psychology (Thornton & Powell, 1974), however to date, there is scant evidence of its utility within the field of health care. This is principally due to the methodological frailties of studies exploring this issue (i.e. Langer & Rodin, 1976; Mercer & Kane, 1979). These frailties were caused through a failure to separate the interventions of 'increasing expectation of control' (Treatment 4), and 'increasing exposure to contingent events' (Treatment 1), thus making the findings difficult to interpret. Nevertheless, of the four treatments mentioned, treatment four is the only one to have empirically shown LH reversal, albeit in a laboratory experiment with a non-patient group.

Literature Gap

One of the main drawbacks of health care research in this domain has been its failure to link the four above proposed treatments with LH reversal. This cannot be shown unless the researcher can demonstrate that participants have been exposed to previous non-contingency (see 'Fundamental Principles' of LH, Peterson *et al*, 1993). In fairness, non of the health care research cited in this section specifically attempts to demonstrate LH reversal, so this design inadequacy is not necessarily the researchers fault. However, this highlights quite a significant literature gap with regard to the application of LH/LM theories to health care. To overcome this, this thesis has already proposed a design which will entail submitting older hospitalised people to helplessness training, thus inducing LH prior to evaluating its alleviation through the utilisation of an appropriate treatment. However, it would be imprudent to induce a helpless state in this vulnerable client group without prior evidence of the effectiveness of an alleviating procedure. With regard to this issue, only Treatment 4 cites research which demonstrates the reversal of LH effects (i.e. the laboratory study of Thornton & Powell, 1974). As a result, this treatment, i.e. informing participants about the controllability of future events, has been chosen as a means of alleviating experimentally induced helplessness in this study.

Question 5

What is the relationship between increasing expectation of control over a future event (ADL, feeding), and the alleviation of *specific* LH effects (motivational and cognitive effects/ dependence in feeding) in older hospitalised people?

↓

Propositions 5

Increasing expectation of control over a future event (ADL, feeding) will alleviate *specific* LH effects (motivational and cognitive effects/ dependence in feeding) in older hospitalised people.

↓

Hypothesis 5

Older hospitalised people, who were previously exposed to intervention #1 (non-contingency), and who are now given an expectation of control regarding mealtime events (intervention #2; contingency), will:

- initiate instrumental responses significantly more quickly,
- spend significantly more time engaged in instrumental meal related responses, and
- succeed in reaching criterion (putting food to lips) significantly more

in a contingent test condition where researcher assistance is delayed (1 min), than an equivalent 'no treatment' control group.

Question 6

What is the relationship between increasing expectation of control over a future event (ADL, feeding), and the alleviation of *generalised* LH effects (motivational and cognitive effects in a 'psycho-motor' task) in older hospitalised people?

↓

Proposition 6

Increasing expectation of control over a future event (ADL, feeding) will alleviate *generalised* LH effects (motivational and cognitive effects in a 'psychomotor' task) in older hospitalised people.

↓

Hypothesis 6

Older hospitalised people, who were previously exposed to intervention #1 (non-contingency), and who are now given an expectation of control regarding mealtime events (intervention #2; contingency), will score significantly higher on a psychomotor task (WAIS-R-UK, Object Assembly Task), than an equivalent 'no treatment' control group.

EXPLORATORY FRAMEWORK

This section will commence by stating the aims and objectives of the exploratory phase of this thesis and will be followed by an overview of literature pertaining to uncontrollable circumstances for older people. Literature gaps will be identified leading to the development of a series of research questions (see 'thesis map' figure 4.2).

Aims and objectives

Aims

1/ To explore the environmental antecedents of LH from the perspective of disempowering staff/patient interactions in hospitals.

2/ To explore the environmental antecedents of LM from the perspective of empowering staff/patient interactions in hospitals.

3/ To develop a reliable measure of disempowerment and empowerment in hospital environments catering for older people.

Objectives

1/ To determine the behavioural constituents of empowerment (increasing patient control) from the perspective of the hospital environment.

2/ To determine the behavioural constituents of disempowerment (decreasing patient control) from the perspective of the hospital environment.

3/ To evaluate the extent to which the behavioural constituents of empowerment assist older hospitalised people to assert control over their lives.

4/ To evaluate the extent to which the behavioural constituents of disempowerment impede older hospitalised people from asserting control over their lives.

5/ To evaluate the occurrence of empowering acts in hospital environments catering for older patients.

6/ To evaluate the occurrence of disempowering acts in hospital environments catering for older patients.

Development of research questions

In the health care setting, disempowerment refers to the active process of impeding patients from asserting control over their lives. This process occurs whilst hospital staff are in direct contact with patients and may result from a variety of staff acts. The literature review identified several of these acts including physical and verbal mistreatment (Draper, 1996); lack of control over day to day routines (Clark & Bowling, 1990); and the over-assistance of patients with activities and tasks (Lester & Baltes,

1978). This thesis proposes that such acts effectively expose patients to non-contingent circumstances consistent with the development of LH.

Empowerment, on the other hand, refers to the process of actively assisting patients to assert control over their lives. Once again, this process occurs whilst hospital staff are in direct contact with patients and may result from a variety of staff acts. The literature review identifies several of these acts including collaborative goal-setting (Blair, 1995); prompting appropriate responses (Coyne & Hoskins, 1997); increasing the number of controllable events in patient's lives (Schulz, 1976; Mercer & Kane, 1979); and informing patients about the controllability of future events (Langer & Rodin). This thesis proposes that such acts effectively expose patients to contingent circumstances consistent with the development of LM.

Literature gap

Although the literature is abundant with examples of empowering/disempowering acts, their systematic classification, both in terms of behavioural range and controllability (from the patient's perspective), has yet to be determined. Such a process would undoubtedly have the benefit of promoting these phenomenon from 'abstract' concepts to 'concrete' variables. As such, they would become visible to research, and could be measured within the hospital environment.

Research questions

1/ What are the prototypical behavioural constituents of disempowerment within the hospital environment?

2/ What are the prototypical behavioural constituents of empowerment within the hospital environment?

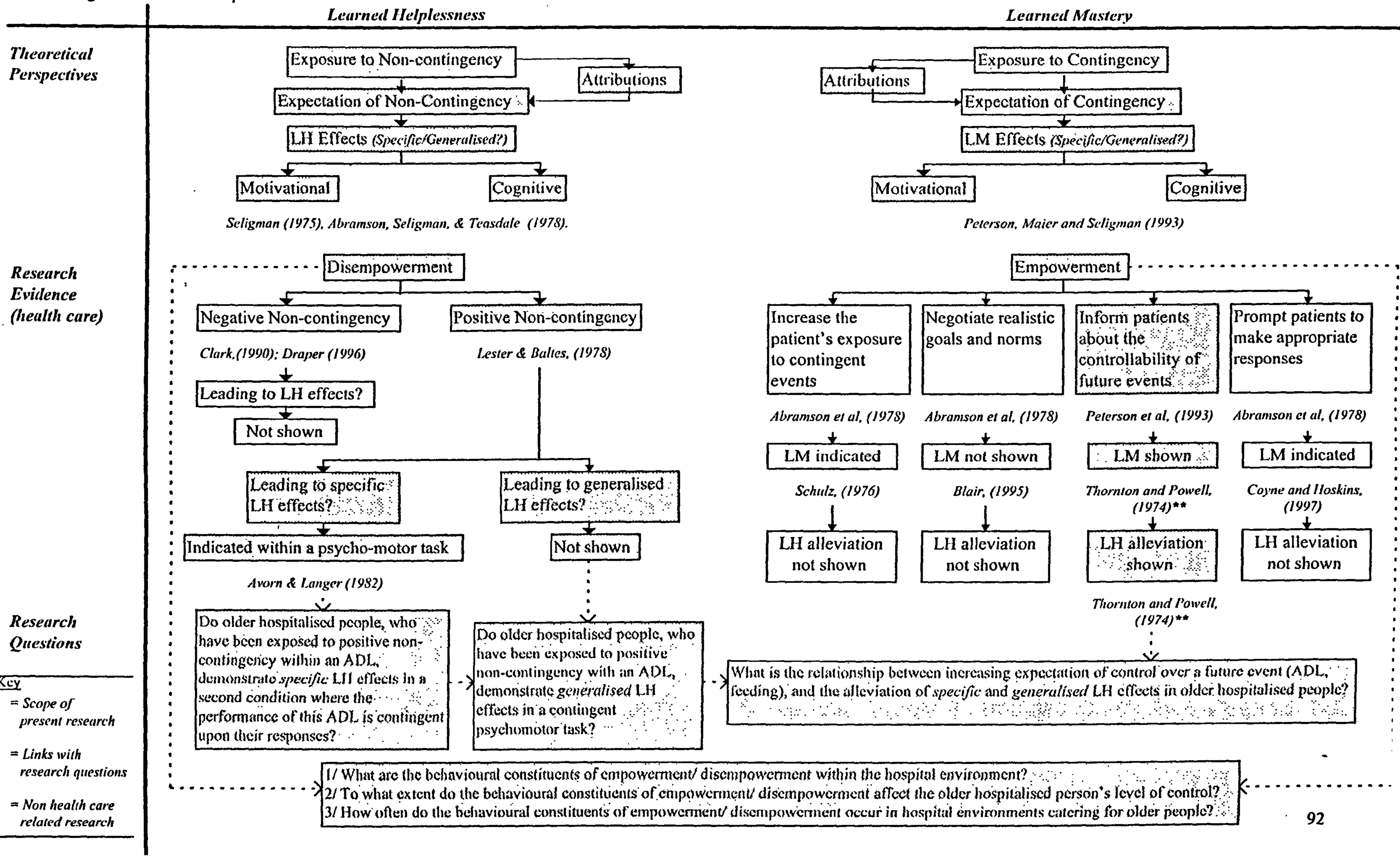
3/ To what extent do the prototypical behavioural constituents of disempowerment impede older hospitalised people from asserting control over their lives?

4/ To what extent do the prototypical behavioural constituents of empowerment assist older hospitalised people to assert control over their lives?

5/ How often do the behavioural constituents of disempowerment occur in hospital environments catering for older people?

6/ How often do the behavioural constituents of empowerment occur in hospital environments catering for older people?

Figure 4.2 Thesis Map



CHAPTER FIVE

METHODOLOGY

INTRODUCTION

This chapter will consider the methodological processes by which the various research questions posed in this thesis will be answered. These processes will be presented in two sections pertaining to the experimental and exploratory phases of the overall study. The experimental section will clearly outline the research principles associated with LH paradigm (Seligman, 1975, and others) focusing on the issue of experimental design and associated interventions. This will be followed by a review of the operational procedures used to adapt these paradigmatic elements to the current study. The exploratory component, on the other hand, will consider the research principles associated with the Act Frequency Approach (AFA) to personality (Buss & Craik, 1983). This will include an evaluation of its worth as a method for categorising the behavioural constituents of empowerment and disempowerment within the context of health care, and its relevance to the development of LH and LM theory. Finally, the operational procedures used to adapt the AFA for use within the current study will be reviewed.

EXPERIMENTAL DESIGN

The use of experimentation

According to Haase and Myer (1988), the use of experimentation should depend upon the level of knowledge that exists about a phenomena of interest. For example, experimental designs require a detailed knowledge about all the pertinent variables as a means of exerting control over them. They also require the researcher to explicitly state a hypothesis which seeks to deductively develop or verify theory. Regarding these issues, the previous literature review has shown LH theory (Seligman, 1975) to be well established in the psychological literature where it has been tested in numerous empirical studies. Less well established is the theory of LM (Peterson *et al*, 1993), although this too has been demonstrated through experimentation. In addition, the effects of exposure to non-contingency (leading to LH) and contingency (leading to LM) have been defined in some detail by LH paradigm, thus facilitating the deductive development of relevant hypotheses. Finally, the

methodological principles by which LH (and LM) effects may be induced and measured have been standardised through the recommended use of a post-test only triadic design. It is therefore proposed that these factors strongly indicate the use of experimental methods regarding the investigation of LH and LM as they relate to the dependence and independence of older hospitalised people.

The Triadic Design of Learned Helplessness Paradigm

The triadic design of the LH paradigm originated with the very first animal experiments (Overmier & Seligman, 1967; Seligman & Maier, 1967), and consisted of a training phase followed by a testing phase. In the training phase, animals were randomly assigned to one of three conditions as below:

> 1/ Contingent condition: Animals are exposed to aversive conditions (usually shocks) which are contingent upon the animal producing an appropriate response (i.e. striking a circuit breaker).
>
> 2/ Non-contingent condition: Animals are exposed to the same stimulus as in the contingent condition, however no response that the animal can make will affect the aversive conditions.
>
> 3/ No pre-treatment: In this condition, animals are exposed to no aversive events, either controllable or uncontrollable. (Adapted from Peterson *et al*, 1993, p100)

The contingent and non-contingent conditions were usually 'yoked,' meaning that animals within them were exposed to precisely the same frequency, duration, intensity, and pattern of shocks. Following training, performance effects were evaluated within a contingent test task. This task would require animals to select, organise, and implement voluntary instrumental responses in order to solve a basic 'escape' problem. From the results of this task, LH was inferred when animals previously exposed to non-contingent conditions showed significant performance deficits relative to animals in the other two conditions (i.e. contingency and no pre-treatment).

Although early studies in the animal paradigm provided researchers with an operational strategy for investigating human LH, the assimilation of the triadic design and its associated methodological concomitants was not without its problems. Firstly, the use of traumatic or painful shocks on humans was deemed unethical by researchers (i.e. Thornton & Jacobs, 1971), a situation which led to the development of alternative, more ethical aversive conditions through which participants were exposed to non-contingency (i.e. aversive loud noise; failure in anagrams etc.). However, despite these developments, it is important to note that it is the non-contingency of the event, and not its aversive

nature that leads to LH, as demonstrated in the research of Eisenberger, Kapan, and Singer (1974) and Griffith (1977), using non-contingent positive events.

Secondly, human participants require/expect instructions regarding their participation within research, a circumstance which may potentially lead to bias should these instructions be poorly presented (Thornton & Jacobs, 1971; Glass & Singer, 1972). For example, Thornton and Jacobs told participants in all groups apart from the control group about the relationship between the training task and shock termination. This confounding non-equivalence between groups was later cited as a possible reason behind the control groups' poor performance in the test task. Thus instructions need to be planned with care so that they do not inadvertently affect participant performance.

Thirdly, the 'yoking' procedure of Seligman *et al* (1967) and Overmier *et al* (1967) has not always been used in human LH studies, thus creating the potential for further confounding factors. For instance, the research of Hiroto (1974) exposed college students to aversive loud noise as part of a motor response task. Students were randomly allocated to groups using a triadic design, but no yoking procedure was used. This lead to participants in the 'non-contingent' condition being exposed to 5 second bursts of loud noise on each trial, whilst participants in the 'contingent' condition only received an average of 1.4 second bursts (due to participants learning the contingency between appropriate responses and stimulus cessation). Therefore, since participants in the non-contingent condition were exposed to longer periods of aversive noise, it could be argued that performance deficits in this group were due to a longer exposure to *aversive stimuli* rather than *uncontrollability*. It should be further noted that the operationalisation of the 'yoking' procedure is dependent upon the objective measurement of the training stimulus being used. For example, in Overmier and Seligman (1967), the training stimulus (i.e. electric shocks) was measured by duration (seconds), intensity (mA) and frequency (overall count), thus it was possible to ensure that both interventional groups received equal exposure to this stimulus.

One final remark regards the extension of the triadic design to incorporate a separate therapeutic phase. For instance, the research of Klein and Seligman (1976) followed up an initial training and

testing phase (triadic design) with a secondary experimental procedure involving 'helpless' participants being submitted to contingent circumstances (i.e. solvable problems) and then re-tested to evaluate the effects of 'therapy.' This demonstrates how the triadic design may be used as a starting point for experiments aiming to evaluate the effectiveness of LH alleviating strategies.

Adaptation of the Triadic Design within the current study

This section will consider issues related to the application of the triadic design in the current study. It will commence by presenting a model of the experimental design to be used (Figure 5.1), followed by a section presenting some general considerations regarding the model's utilisation. After this, the individual components of the training phases (learned helplessness training; learned mastery training; and the no-pre-treatment control) and testing phases (observation; psychometric testing) will be considered separately. (NB. A detailed review of methods including procedure, instrumentation, tests of validity and reliability, will be presented in Chapter 6).

As may be seen in figure 5.1, the experimental design of procedure 1 is a post-test only triadic control group design. This is followed by a two group pre-test/post-test control group design in procedure 2. According to Campbell and Stanley (1963), both designs fair well with regard to internal validity given a random allocation of participants to the various experimental groups. However, the pre-test/post-test design of procedure 2 is considered to have a definite weakness with regard to external validity. For example,

> *"a pre-test might increase or decrease the respondent's sensitivity or responsiveness to the experimental variable and thus make the results obtained for a pre-tested population unrepresentative of the effects of the experimental variable for the unpre-tested universe from which the experimental respondents were selected"*
>
> (Campbell & Stanley, 1963, p5-6).

From the perspective of our current research, Campbell and Stanley's remarks might relate to the phenomenon of 'practice effects,' especially within the psychometric tests (i.e. the Object Assembly Task, described later) utilised in the test phases of both procedures.

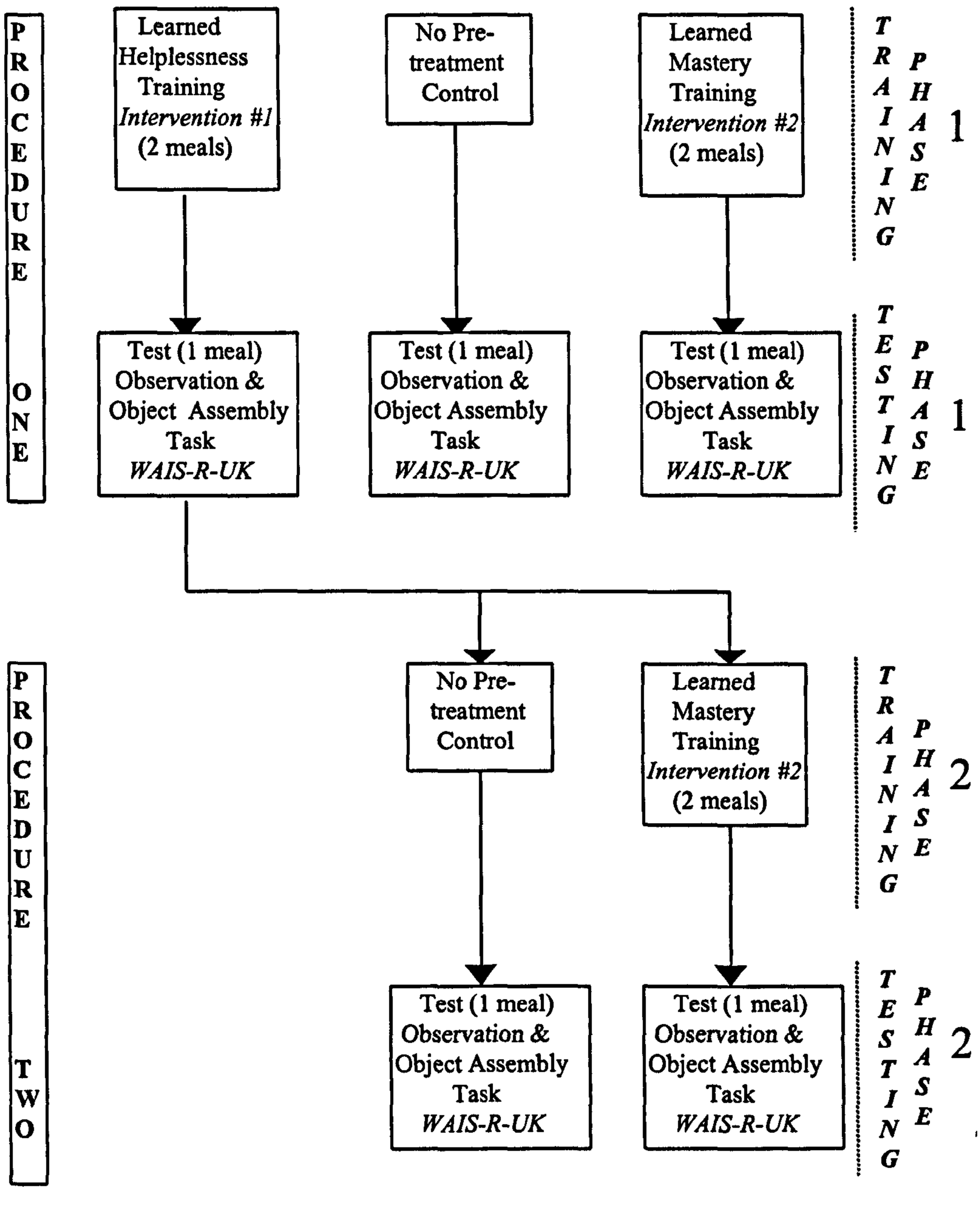


Figure 5.1 Model of the Experimental Research Design

The triadic design of procedure 1 provides a robust framework through which the effectiveness of LH training may be evaluated. This, in turn, is relevant to the valid assessment of the alleviation of LH induced dependence in procedure 2. For instance, if LH training is not conducted, then any therapeutic effects resulting from an alleviating intervention may not be attributed specifically to LH reversal, but instead may also include the alleviation of alternative dependency inducing factors. It is therefore essential to demonstrate that participants are 'helpless' prior to evaluating the effectiveness of an alleviating intervention.

The context of procedures within the experimental design has been determined by one of the principle aims of this thesis, which is to evaluate the appropriateness of LH theory as an explanation of 'extrinsic' dependency. In health care, dependence is often related to a patient's ability to perform Activities of Daily Living (ADL, Roper, Logan & Tierney, 1990), (see definitions of dependence, Chapter 3), however, of the twelve ADLs described by Roper *et al*, only one is deemed appropriate for the purposes of this research. This is the ADL of 'eating and drinking,' which relates to the mealtime event. This event has been chosen because of its frequency (i.e. three times per day), and predictability (i.e. mealtimes occur at consistent times during the day), thus facilitating the organisation of the study. Secondly, compared to other ADLs (i.e. washing and dressing, elimination), the mealtime event has an obvious *stimulus* (i.e. food and drink), and is much less invasive with regard to patient privacy. It should also be noted that the stimulus of 'food' (an inevitable aspect of mealtimes) represents a pleasant stimulus, as opposed to the 'shocks' and 'loud noise' which are occasionally associated with studies from the LH paradigm (i.e. Thornton & Jacobs, 1971; Hiroto & Seligman, 1975).

The use of the mealtime event as a means of exposing participants to non-contingency/ contingency, effectively precluded the possibility of objectively yoking the experimental stimulus between groups. For instance, the only way that the stimulus, i.e. food, could be held constant between these groups, would be if all participants received precisely the same meal (i.e. food type, weight, temperature, and presentation). This, of course, is clearly impractical given that patients have all manner of preferences, moreover, some may be on special diets (i.e. reducing; diabetic; low sodium, etc.) or restricted by

their religious beliefs. However, whilst the principle of yoking was invalidated by the researcher's choice of intervention, efforts were made to ensure that interventional groups were equivalent in so much as all participants received their 'desired' meal. This was chosen from a selection of foods available on the daily hospital menus.

The training phase

LH training (Procedure 1)

The use of 'over-assistance' (intervention #1) as a means of inducing LH was influenced by the study of Avorn and Langer (1982) which used this intervention within a psychomotor task. It was also influenced by the research of Lester and Baltes (1978) and Clerk and Bowling (1990) who reported observing the over-assistance of patients with activities during staff/patient interactions in the hospital setting. As an intervention, over-assistance is non-contingent for participants in so much as outcomes occur independent of participant responding, a recipe for the development of LH.

It is practically impossible to hold the level of helplessness training (i.e. over-assistance) constant between participants given the diversity of the stimulus (i.e. food). To illustrate, consider over-assisting a patient with a plate of hot food. This might involve removing the food cover, moving the dish into position, cutting the food (where necessary), and placing the cutlery into the participants hands. Over assisting a patient with a plate of sandwiches, on the other hand, would inevitably provide the researcher with fewer opportunities to intervene. However, whilst LH training between participants may not have been quantifiably constant, there was equivalence in so much as *all* instrumental responses associated with the mealtime event, other than the loading of cutlery and transportation of food from plate to lips, were undertaken by the researcher for *all* participants in the LH training group.

LH training was conducted over two consecutive meals. This of course led to the question of whether two meals were enough to induce LH. Guidance on this issue was drawn from the research of Avorn and Langer (1982), whose LH training (i.e. over-assistance with a psychomotor task) took place during four 20 minute sessions. However, given that LH training in the current study involved an

important ADL, a balance had to be found between adequately inducing helplessness, and ethically inducing helplessness. It was therefore thought necessary to restrict the level of LH training as much as possible. As a result, it was decided only to conduct LH training during two meals in the first instance, and to monitor the effectiveness of this intervention through pilot work prior to proceeding with the main study.

LM Training (Procedure 1)

With regard to the LM training phase, Peterson *et al* (1993) suggested that participants should be exposed to outcomes which are contingent on their responses. However, from the perspective of the mealtime event, and given that this study used a sample of 'independent eaters,' participants in the LM training group would no doubt have been exposed to such conditions for a considerable number of years. As a result, the contingent intervention would closely parallel the non-intervention of the control group. Subsequently, it was decided to submit participants to a LM intervention (intervention #2). This intervention, which was influenced by the research of Thornton and Powell (1974), involved participants being given an increased expectation of control over future mealtime events prior to completing two training meals. For instance they were told: "*When I put the meal tray in front of you, you are in control.*" Following this, participants were left to eat their 'training' meals without interference from the researcher, who merely attended to his 'notes.' LM theory would predict that by giving participants an increased expectation of control, they should have an increased motivation to initiate instrumental responses to control the environment, and an augmented ability to recognise, and thus successfully respond to, contingent situations. Thus the triadic design of this study investigated the bi-directional effects of both non-contingency (LH) and contingency (LM).

As with LH training, LM training was conducted over two consecutive meals, boding the question of whether this was sufficient to induce LM effects. Obviously, with this particular intervention, which was predicted to be therapeutic, there were fewer ethical constraints. However, in order to maintain equivalence between LH and LM training groups, it was decided that the number of meals used in both groups should be the same. This of course would depend on the findings of the pilot study.

LM Training (Procedure 2)

Similar to LM training in procedure 1, LM training in procedure 2 also involved giving participants an elevated expectation of control over the mealtime event (intervention #2), only this time participants would have been previously exposed to LH training. Participants were told: "*From now on, when I put the meal tray in front of you, you are in control.*" Following this, two further training meals were conducted, only this time participants were not over-assisted by the researcher, who instead merely attend to his 'notes.'

The issue of the number of LM training meals required to alleviate LH is debatable. For instance, the study of Thornton and Powell (1974), using a similar intervention, indicated that helplessness was reversed immediately after participants were informed of the contingency of future events. In this study, however, Thornton *et al* utilised the mastery intervention immediately following LH training and immediately prior to the test phase. As such, the alleviatory effects of LM related *specifically* to the test task (i.e. specific LM effects), and did not consider the alleviation of LH in alternative tasks (i.e. generalised LM effects). In contrast, this study asks slightly more of the LM intervention. For instance, does LM induced in one task (i.e. feeding) alleviate LH in alternative tasks (i.e. the Object Assembly Task, WAIS-R-UK). As such, it was felt that the intervention should be (initially) accompanied by two contingent training meals. These training meals would help participants to confirm the interventional statement (i.e. that they would be in control over future mealtime events) thus enhancing expectational change in the direction of contingency. However, the exact number of training meals required would ultimately depend on the pilot study (reported in Chapter 5).

No pre-treatment control group (procedures 1 and 2)

Participants in the no pre-treatment control groups of Procedures 1 and 2 merely undertook the test-task. It is important to note, however, that the gap between LH training (Procedure 1) and the second test trial (Procedure 2) was held constant for both research groups in Procedure 2 (i.e. LM training and Control). This is due to LH effects diminishing over time (see Abramson *et al*, 1978) and thus the need to maintain periodic equivalence between groups in this second procedure. Participants in the control group of procedure 2, who did not undergo the training meals, were instead engaged in an

equivalent number of meals according to the normal routine of the ward, and in the absence of the researcher.

The testing phase

Testing for specific effects (Procedure 1)

Testing for specific LH and LM effects involved the observation of participants during a contingent mealtime event. This involved the researcher placing the participant's meal in front of them and immediately leaving the experimental setting (i.e. the participants bed area (curtains drawn), or side room). The mealtime event was contingent in so much as participants had all the necessary prerequisites to commence eating, moreover, the researcher would not be present to interfere in this process. The test trial lasted for one minute, during which the participant's meal related responses were captured by a video camera in the researchers absence. (NB. The video camera was present, although not always recording, throughout the training and testing phases. Here, participants were lead to believe that the researcher was merely attempting to observe their meal related responses). Data were taken directly from the video recording as follows: a/ time taken to engage in instrumental responding; b/ overall length of time engaged in instrumental responding; and c/ ability to reach criterion (i.e. put food to lips) within the fixed time period.

This thesis proposes that the testing procedure described above fulfils most of the requirements of testing set forward by LH paradigm. Firstly, from the perspective of the mealtime event, Mikulincer (1994) suggested that events used in the evaluation of LH (and LM) effects, should require the "selection, organisation, and implementation of voluntary.. (instrumental)..responses to solve a problem" (Mikulincer, 1994, p14). It is proposed that the mealtime event fulfils these criteria, with the 'problem' being the transportation of food from plate to lips. Secondly, the test task is 'contingent,' thus fulfilling another criteria laid down by Mikulincer. Finally, the specific data collection methods employed to measure performance have all been previously utilised within studies from the LH paradigm.

One area where the above proposed testing procedure does not fulfil the LH paradigm regards the testing of 'specific' performance effects. Regarding this issue, Mikulincer (1994) suggested that *"the observation of performance effects in the original helplessness training task...* [i.e. specific effects]... *is not an instance of LH effects. These changes become LH effects only when they are transferred to new controllable tasks...* [i.e. generalised effects]" (Mikulincer, 1994, p16). Here, Mikulincer seems to dismiss the relevance of specific performance effects, suggesting that they do not relate to LH. This view, however, may be challenged on two accounts. Firstly, if *generalised* performance effects resulting from an exposure to non-contingency (or contingency) may be attributed to LH (or LM), as is suggested by Mikulincer (1994), then *specific* performance effects, resulting from identical conditions, should be attributed to the same theoretical process. In short, *specific* and *generalised* performance effects ought to be relevant to LH (or LM) theory. Secondly, if non-contingent (or contingent) interventions occurring during ADL performance are later found to retard (or enhance) functioning within that same ADL (specific effects), then this may be deemed to demonstrate a potential cause of 'extrinsic' dependence, (or a potential means of its alleviation). An issue of extreme relevance to the field of health care.

Testing for generalised effects (Procedure 1)

Testing for generalised LH and LM effects was conducted using the Object Assembly Task (OAT) of the Wechsler Adult Intelligence Scale- Revised- Incorporating British Amendments to the Test Administration Score (WAIS-R-UK), (Wechsler, 1981). This test:

> *"Taps the ability to recognise a picture of a familiar object from its separate parts, and to assemble the parts to make a picture of the whole object. A sense of space relations, visual-motor co-ordination, and persistence are among the qualities measured by this sub-test."*
> (Wechsler, 1981, Analysis Worksheet).

It is proposed that the OAT fulfils the criteria for the measurement of LH/LM effects specified by the LH paradigm. For instance, it involves the selection, organisation and implementation of voluntary instrumental responses to solve a problem; performance within it is 'contingent' on the responses of the participant (i.e. the researcher will not intercede); and it relates to a category of tests (i.e. intelligence tests) commonly used within LH paradigm for the evaluation of LH (and thus LM) effects. Finally, it tests for the generalisation of LH effects, thus satisfies Mikulincer's (1994)

suggestion that LH (and LM) effects may only be demonstrated where the task used for testing these effects is dissimilar to that used in the training phase.

Testing for LH alleviation (Procedure 2):

Test trials conducted during procedure 2 evaluated whether specific and generalised LH effects were alleviated by the LM intervention. The tests used were the same as in Procedure 1 above, the only difference being that data were recorded as to the degree of change (positive or negative) between test trials one and two for the main variables of interest.

EXPLORATORY DESIGN

The use of exploratory methods

Exploratory research provides a knowledge base when little is known about a phenomenon, investigating its full nature, including the manner in which it is manifested and alternative factors with which it is related (Polit & Hunger, 1995). Unlike experimental research, which develops theory deductively, exploratory research develops theory inductively through a process of reasoning in which general principles are inferred from observations of individuals or small samples (Reber, 1985). With reference to the current study, an exploratory methodology was an appropriate means of investigating the types of empowering and disempowering staff/patient interactions which may potentially lead to the development of LH and LM in older hospitalised people. For example, no research to date has systematically investigated this issue, leading to a lack of empirical and theoretical knowledge, and precluding the use of more experimental approaches. As a means of exploring empowering and disempowering staff/patient interventions therefore, it was decided to use the Act Frequency Approach of Buss and Craik (1983). This led to the development of the PES tool.

The Act Frequency Approach of Buss and Craik (1983)

The Act Frequency Approach (AFA) of Buss and Craik (1983) is based on the postulation that personality dispositions (or traits) are directly expressed by an individual's behavioural conduct. As such, Buss and Craik argued that by determining the prototypical acts of a particular disposition and measuring their frequency within an individual's conduct, it should be possible to quantify the extent

to which a disposition applies to an individual. For instance, if the disposition in question were 'submissiveness,' then to say that an individual was submissive would be to say that they displayed a high frequency of submissive acts over a given period of time. On the other hand, to say that an individual was not submissive, would be to say that they displayed a low frequency of submissive acts over time.

The process by which AFA determines prototypical acts involves two distinct stages, 'act nomination' and 'act prototypicality ratings'. These are described by Buss and Craik as follows:

Act Nomination

> *"For each dispositional construct, participants are asked to nominate acts that would count as manifestations of that disposition. The basic instructional set (e.g. for dominance) was 'think of the three most dominant females (males) you know. With these individuals in mind, write down five acts or behaviours they have performed that reflect or exemplify their dominance.' The aim of this procedure was to secure, for each disposition, 100 acts that could reasonably be considered to fall somewhere within the dispositional act category"*
>
> (Buss & Craik, 1983, p108)

(NB. These acts were then edited and placed in a list prior to prototypicality ratings).

Act Prototypicality ratings

> *"For each act list, panels of judges rated on a seven point scale how good an example each act was of the dispositional category at issue....* (using these judgements, the 100 acts were ranked as to their prototypicality and).... *partitioned into quartiles, each successive 25 acts forming an independently composited multiple-act index, from proto 1, the most central acts, to proto 4, the most peripheral acts"*
>
> (Buss & Craik, 1983, p108)

The resulting acts are considered to be relatively objective, concrete individual events, and as such are deemed suitable for the act-based evaluation of dispositions in individuals. The exact method of act frequency evaluation is left open by AFA, although two common approaches have been described. Firstly, retrospective 'self' reports, where participants are asked to rate act frequency themselves over a predefined period; and secondly, retrospective 'observer' reports, where ratings of act frequency are conducted by a close friend or spouse of the participant, again over a predefined period (Buss & Craik, 1985). (The procedural flow of events within AFA is illustrated below in Figure 5.2).

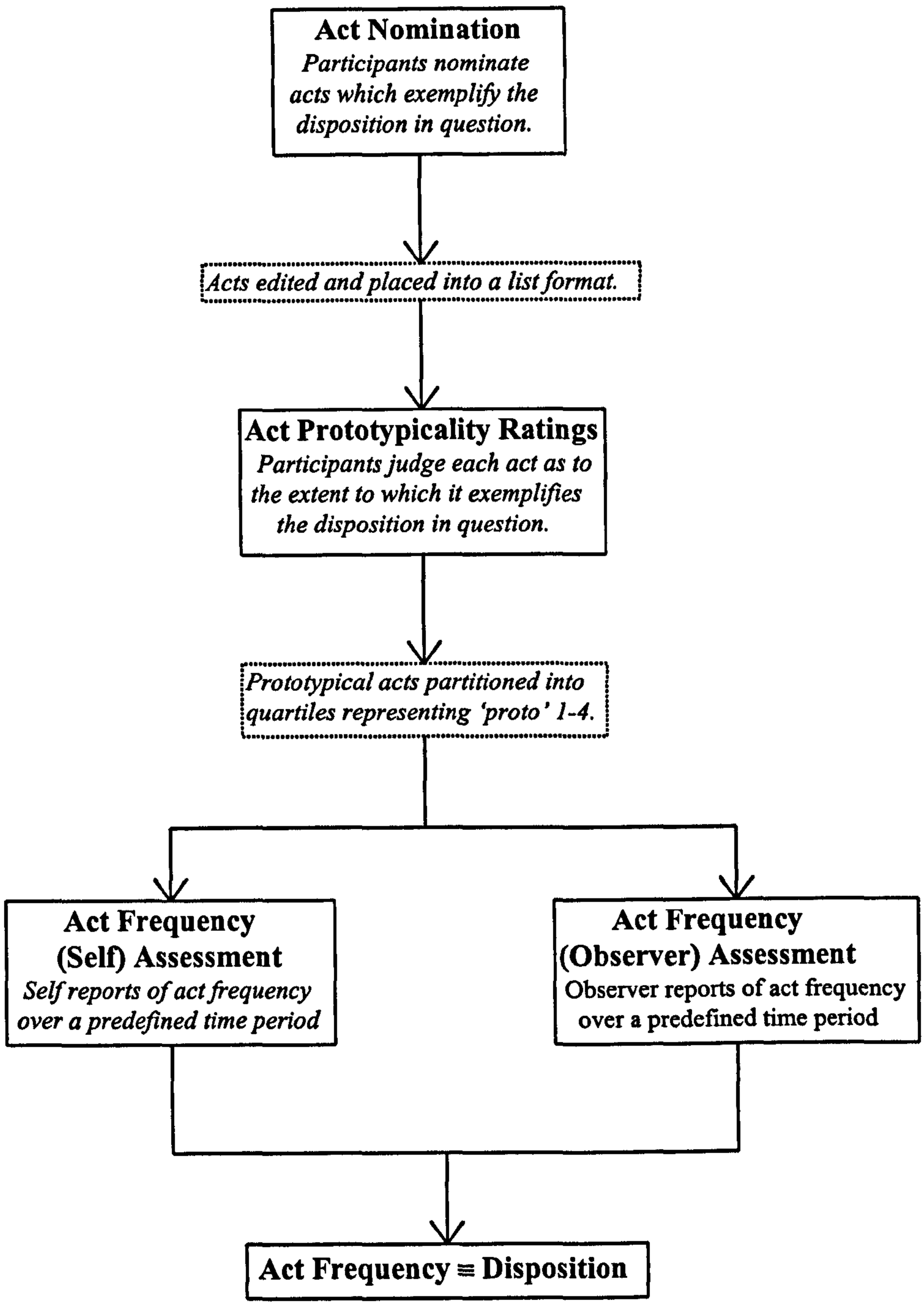


Figure 5.2 The Act Frequency Approach to Personality (adapted from Buss & Craik, 1983).

The types of disposition conceptualised by the Act Frequency Approach include 'dominance' (Buss & Craik, 1980); 'agreeableness,' 'aloofness,' 'gregariousness,' 'quarrelsomeness,' 'submissiveness,' (Buss & Craik, 1981); and 'helplessness' (Peterson, 1993). In the study of Peterson (1993) for instance, the seventeen most prototypical 'helpless' acts included: 'refused to do something on my own;' 'let someone else make a decision;' and 'was unable to fix a broken object' (Peterson, 1993, p291). Using these acts, Peterson was later able to evaluate helplessness (i.e. the frequency of helpless acts) in individuals using the retrospective judgements of their closest friends.

The reliability of previously conducted AFAs has been relatively good. For instance, the prototypicality ratings of the five dispositions submitted to the AFA by Buss and Craik (1981), yielded alpha reliabilities of between 0.77 and 0.97 using panels of twenty or so judges. Furthermore, given that acts are proposed by thirty or more nominators, and evaluated by twenty or more judges (NB. sample sizes are not directly stipulated by AFA), it may also be argued that the resulting acts achieve a consensual validity. Regarding external validity, however, it is important to note that the AFA relies heavily on the socio-cultural opinions of individuals as a means of generating acts. Subsequently, the prototypicality of these acts may well be influenced by a prevailing zeitgeist, and thus collectively may have a limited longevity as a valid representation of a disposition.

The main criticisms of the AFA concern the application of prototypical acts as a means of evaluating personality dispositions. These criticisms focus especially on the 'self' reporting of acts by participants (Block, 1989; Gosling, John, Craik & Robins, 1998). For instance, Gosling *et al* (1998) video recorded the performance of eighty-eight participants in a group discussion task (n=6 per group) prior to asking them to self report on how frequently they had engaged in a series of previously prepared acts. For each act expressed, self-observer agreement was examined showing a general trend towards self-enhancement bias with self reported acts. This circumstance was found to be particularly true of individuals with narcissistic tendencies (measured using the Narcissistic Personality Inventory of Raskin & Terry, 1988). Thus the validity of self reported act frequency assessments may be called into question.

Criticisms may also be raised regarding 'observer' ratings of acts over a predetermined period. For instance, observer ratings, which are *casual* retrospective estimates, may depend on the extent to which an observer has been in contact with a participant. Here, an observer who has only been in contact with a participant for two weeks of a four week observation period, may rate a participant as demonstrating fewer acts than an observer who has encountered a participant constantly throughout the observation period. Secondly, Block (1989) notes that the AFA takes no account of the context within which an individual's acts are observed. Thus an observer who is an individual's work colleague may report greatly different frequencies of acts to an observer who is an individual's spouse. The essential truth is that people behave differently depending on the context. One merely needs to consider the difference between an individual's behaviour at an interview compared to a football match to recognise this. Thirdly, the fact that the AFA does not actually observe acts, but instead requires the estimation of their frequency on the basis of broad categories such as 'rarely;' 'sometimes;' or 'often,' leads to a very impressionistic interpretation of act-based conduct.

Other criticisms relate more to the AFA's association with personality psychology. For instance, Block (1989) argues that because the AFA chooses to ignore the distribution of acts over time, its utilisation as a measure of dispositions in individuals with severe mood swings (i.e. bipolar depression), where act presentation may not be consistent, is infeasible. Finally, the AFA's account of personality, which is based solely on observable acts, fails to recognise the importance of 'unobservable behaviours' (i.e. emotion and thoughts), and as such, is considered overly limiting to the field of personality research (Block, 1989).

Adaptation of the Act Frequency Approach within the current study

The term 'disposition' as it applies to personality psychology may be defined as:

> *"any hypothesised organisation of mental and physical aspects of a person that is expressed as a stable, consistent tendency to exhibit particular patterns of behaviour in a broad range of circumstances"* *(Reber, 1985, p218)*

In this study, the concepts of disempowerment and empowerment are seen as *dispositions* in so much as individuals who are disempowering (or empowering), are hypothesised to be *consistently*

disempowering (or empowering), and to demonstrate this behaviour in a broad range of circumstances. However, as well as representing dispositions, disempowerment and empowerment also represent the non-contingent and contingent circumstances predicted to lead to LH and LM. Therefore, by submitting these concepts to the AFA, it was hoped to develop a series of prototypical staff/patient interactions (acts) which are consistent with the development of LH and LM in older hospitalised people.

The application of the AFA within the current study, however, was not straightforward and involved several key adaptations in order to fulfil the previously presented aims and objectives of this study. Three of these adaptations are directly relevant to AFA methodology, including: 1/ the use of specific participant samples to develop prototypical empowering and disempowering acts; 2/ the instructions used to illicit judgements from participants during the act prototypicality rating phase, and 3/ the utilisation of prototypical acts in the assessment of act frequency. Other issues related to the application of the AFA are discussed in Chapter 7.

With regard to the first issue, many AFA studies to date have secured act nominations and judgements using samples of undergraduate students. Whilst this approach to determining prototypical acts may be adequate for dispositions occurring universally, in the current study it was deemed necessary to be more selective about the populations from which nominators and judges were drawn. For instance, the dispositions of empowerment and disempowerment specifically relate to the conduct of hospital staff. It therefore seems appropriate to use hospital staff to *nominate* such acts based on their experience of witnessing the conduct of colleagues in the hospital setting. Secondly, the emphasis of this study was to translate empowering and disempowering acts, not so much in terms of their relevance to personality (i.e. AFA paradigm), but instead in terms of their behavioural effects on other people (LH paradigm). It was therefore argued that the best people to *judge* empowering and disempowering acts in the hospital setting, are the people who actually encounter them, in this case older hospitalised people.

The use of older hospitalised people to judge the prototypicality of empowering and disempowering acts fulfils two of the principle objectives of this study:

- To evaluate the extent to which the behavioural constituents of empowerment assist older hospitalised people to assert control over their lives; and
- To evaluate the extent to which the behavioural constituents of disempowerment impede older hospitalised people from asserting control over their lives.

However, the use of older hospitalised people as judges of act prototypicality may be deemed problematic in so much as the concepts of empowerment and disempowerment are esoteric as they pertain to health care, and thus may not be understood. As a result, patients were asked to judge the nominated acts, not as they pertained to the dispositions in question, but from the perspective of how 'control giving' or 'control taking' they would be if encountered. It was hoped that this second major adaptation of the AFA would not only make the process of act judgement more intelligible for patient participants, but also help to sensitise these judgements so that they related more specifically to the types of conditions predicted to cause LH and LM.

Perhaps the most significant deviation from the traditional AFA of Buss and Craik (1983) relates to the utilisation of prototypical acts in the assessment of act frequencies. For instance, whilst the original AFA uses prototypical acts to evaluate the act frequencies of individuals, the current study uses prototypical acts to evaluate the act frequencies of *'groups'* of individuals. Here, observer ratings were gained by asking patients within specific hospital environments to determine how often they had personally encountered each disempowering and empowering act during the last three days of their current admission. These ratings pertained to what the author has termed the Patient Empowerment Scale (PES). This scale converted act ratings into sub-scale scores, and then into a composite score which aimed to reflect the overall level of empowerment within a specific hospital environment. (The exact process of scoring the PES will be detailed in Chapter 7).

This adaptation of the AFA related to another objective of the current study. This was to evaluate the occurrence of empowering and disempowering staff acts in hospital environments as a means of determining the extent to which patients were being exposed to factors relevant to the development of LH or LM. From this perspective, it is the occurrence of the acts themselves which is relevant to this study, not the occurrence of acts as they pertain to an individual's personality. As such, the AFA is

uprooted from its traditional paradigmatic surround and used instead as a means of assessing the frequency of environmental factors relevant to the aetiology of LH induced dependence and its LM induced alleviation.

The above mentioned adaptations have meant that whilst some of the criticisms previously made of the AFA are no longer relevant, others have unfortunately been created. For instance, whilst the use of patient observers as a means of assessing act frequency might appear to negate the self-enhancement bias associated with 'self' assessment, there are now other biasing factors to consider. These relate to patients giving positive ratings of a ward or hospital environment because 1/ they are sympathetic to the pressures and workload of hospital staff, and thus more tolerant of inadequate care; and 2/ they fear recrimination should staff find out that they have given an unfavourable image of the ward. To compensate for this, patient observers were given adequate information regarding the confidentiality of the questionnaire, and asked to rate acts based solely on their actual experiences on the hospital environment in question.

Other issues relating to the previous critique of the AFA, include Block's (1989) criticism that the AFA fails to take context into account. In this study, however, context was taken into account throughout the AFA process. For example, prototypical acts, which relate specifically to empowering and disempowering staff/patient interactions, were nominated by hospital staff and rated as to their contingent qualities by hospital patients. Following this, act frequency assessment involved patient observers retrospectively judging the frequency of empowering and disempowering acts relating only to staff/patient interactions within their immediate ward surround, and where staff could be assumed to be acting in a capacity relevant to their individual professional roles.

This use of patient observers to evaluate act frequencies relates to another previously mentioned criticism, i.e. that act frequencies over a predetermined period are dependent upon the amount of time the observer is in contact with the observed *individual*. In this study, however, the patient observer was not observing any one individual, but instead a *group* of individuals, i.e. staff relevant to a specific hospital environment. It may therefore be assumed that where patients *experience* staff on a

24 hour basis, they will retrospectively *rate* staff on a 24 hour basis. Moreover, because patient observers will take the acts of all hospital staff into account, rather than any single individual, the PES should be representative of staff empowerment generally within the hospital environment in question.

However, whilst act-based ratings of staff by patients may be considered to be relatively representative, they may also be inadvertently affected by the following factors. Firstly, the issue of whether the acts presented on the PES will actually occur at all. This issue may well depend upon how successful the formative stages of the AFA are in producing prototypical acts which are relevant to the hospital environment. Providing that these acts are relevant, the probability of their occurrence should increase commensurate with the frequency of staff/patient interactions. This, however, relates to the second factor, i.e. the overall rate of staff/ patient contact. For instance, it is feasible that on some wards patients may have very little contact with staff, this may be especially the case where patients are positioned in a side room, or deemed to be independent with personal care. With regard to this issue, wards which isolate patients should produce relatively low scores on both the empowering and disempowering sub-scales, ultimately yielding a rather mediocre composite PES score. Therefore, to a generally empowering ward, the isolation of particular patients for whatever reason will only serve as a handicap to the production of a good overall PES rating.

CHAPTER SIX

EXPERIMENTAL PHASE

INTRODUCTION

The following section will present the strategies by which the experimental methodology of this thesis were operationalised. This will include sections on study sites, sampling techniques, ethical issues, instruments (including information regarding their validity and reliability), pilot work, experimental procedures, and data analysis. The experimental phase involved two main procedures, both relating to the questions previously posed within the conceptual framework. Procedure 1 concerned the induction of Learned Helplessness (LH) and Learned Mastery (LM) in older hospitalised people, and procedure 2 concerned the alleviation of LH in participants previously exposed to LH training.

STUDY SITES

Sites selected

Participants in the experimental phase of this thesis were drawn from two hospitals of an Oxfordshire based NHS trust. Within these hospitals, a total of six study sites were set up, all of which were mixed sex wards catering for adult inpatients. These wards varied with regards to speciality (including elderly care rehabilitation, n=3; medicine, n=2; and surgery, n=1); size (ranging from sixteen to twenty-six beds), and age group (ranging from eighteen plus, n=3; to sixty-five plus n=3). Despite these variations, all sites operated a system of team nursing and used Roper Logan and Tierney's (1990) 'Activities of Daily Living' as a means of assessing and planning the care of patients (study site specifications are given in table 6.1).

Table 6.1 Experimental Study Sites

Hospital	Ward	Speciality	No of Beds	Gender	Age Group
1	1	Surgical (Urology)	26	Mixed	18+ years
1	2	Acute Medicine	16	Mixed	18+years
1	3	Acute Medicine	20	Mixed	18+ years
1	4	Elderly Care Rehabilitation	26	Mixed	65+ years
2	5	Elderly Care Rehabilitation	26	Mixed	65+ years
2	6	Elderly Care Rehabilitation	20	Mixed	65+ years

Establishing the study sites

The process of establishing these hospital based study sites commenced with the researcher submitting a full research proposal to the 'Nursing and Allied Profession's Research Ethics Committee' (NAPREC) of the relevant NHS trust. Having gained ethics approval from this committee (see ethics section), the researcher then contacted the Director of Nursing Services (DNS) in prospective hospitals to arrange an initial meeting. These meetings had the aim of discussing any issues of concern that the DNSs might have had regarding the project, as well as giving the researcher an opportunity to submit his practical needs. This culminated in the DNSs suggesting appropriate wards upon which the research could potentially be based, a situation which would ultimately depend upon the researcher gaining the consent of the relevant managers responsible for these wards. Subsequently, further meetings were arranged with these ward managers.

Having gained permission to proceed from relevant ward managers, further meetings were arranged with the ward based nurses. These meetings gave the researcher an opportunity to outline the proposed research and answer any staff concerns. It also provided an opportunity to give staff assurances that the researcher's intrusion into the normal functioning of the ward would be kept to a minimum wherever possible. Furthermore, that the researcher would always enquire if participants were well enough to undertake research prior to visiting them, would only complete relevant nursing documentation if requested to do so (i.e. food or fluid chart), and immediately abrogate research proceedings should this be requested. As well as conducting meetings with ward staff, the researcher also distributed a letter informing staff about the research and their likely contribution within it (letter presented in appendix 2).

Justification of study sites chosen

The study sites chosen for this research were hospital wards, a circumstance choice of hospital wards as a means of acquiring participants for this experiment related to several issues. Firstly, the study aimed to investigate the onset and alleviation of LH as it applied to conditions encountered by hospital patients. As such, the use of patients within a hospital environment ensured that the context of this study was appropriate to fulfil this aim. Secondly, hospital wards have a relatively high

turnover of patients compared to nursing homes and other institutions catering for older people, thus providing the researcher with sufficient numbers of potential participants. Finally, mealtime procedures in hospitals are fairly consistent, commencing when food is delivered to the patient's bedside by a member of staff. Thereafter, if a patient is independent, the member of staff will withdraw allowing the patient to eat independently. This standardised routine, which occurred on all of the hospital sites used, also formed an intrinsic part of this study's method, whereby the researcher attempted to superimpose experimental procedures onto the normal routines of the ward in an attempt to maintain a 'hospital based' context (see procedures section later).

SAMPLING

Selection criteria

Participants were selected from the study sites on the basis of the following selection criteria:

1/ *Older hospitalised people aged 65 or over (age determined from nursing records).*
2/ *Independent with eating (based on the opinion of the patient's named nurse)*
3/ *No gross visual impairment (based on the opinion of the patient's named nurse, and the 'reading,' 'writing' and 'copying' tests of the Mini Mental State Examination, (MMSE) Folstein, Folstein & McHugh, 1975).*
4/ *Not physically compromised in arms or hands, i.e. through severe rheumatoid arthritis or stroke (determined from nursing records, and where necessary assessed by monitoring the patient's ability to manipulate cutlery).*
5/ *Uncomplaining of pain (determined by asking the patient).*
6/ *Not currently using anti-depressive medication, or diagnosed as suffering from depression (determined from the nursing records and information given by staff).*
7/ *Has been an inpatient for no less than 2 days, thus familiar with the wards mealtime routine (determined from hospital records).*
8/ *Deemed well enough to participate in the research (based on the opinion of the patient's named nurse) .*
9/ *Non-cognitively impaired (no history of organic or psychotic mental disorder in the nursing records, scores between 21-30 inclusive on the MMSE).*
10/ *Gives informed consent to participate.*

The first item of the above selection criteria, i.e. the use of older hospitalised people, related specifically to the sample required by the principle aims of this experiment, with 'older' being defined as of, or older than, the United Kingdom retirement age of 65. Other items in the criteria, however, had alternative purposes which may be broadly categorised as relating to one of the following issues. Firstly, measures to ensure that test task performance was not affected by alternative factors, and secondly, measures designed to ensure ethical practices, both from the perspective of local ethics procedure, and from the perspective of criminal law (see ethics section).

With regard to the first of these issues, this study evaluated the effects of LH and LM training on patient performance in two tasks requiring the implementation of instrumental responses. It was therefore important to avoid using participants whose performance might be compromised due to physical or mental disability, thus causing the test task results to be a less valid representation of LH and LM effects. Selection criteria items 2-9 inclusive therefore served the function of eliminating patients from the study whose physical or mental condition might have inadvertently affected test task performance. As can be seen, these conditions were relatively broad, including: physical disabilities in arms and hands, gross visual impairment, pain, depression, and cognitive impairment.

One item of the selection criteria which, whilst relevant to instrumental performance, was not related to mental or physical ability was item 7, where participants were required to have been inpatients on the ward for at least two days in order to be familiar with the ward mealtime routine. This selection item was applied because the 'contingent meal task' of the experiment effectively 'mimicked' the normal ward routine, i.e. the mealtime event commenced when food was deposited at the patient's bedside by a member of staff, or in this case by the researcher. It was therefore felt that an unfamiliarity with ward routine might inadvertently affect performance.

A second subsection of the selection criteria, incorporating items 9 (non-cognitively impaired) and 10 (gives informed consent to participate), was relevant to measures designed to ensure ethical practices. In both cases, these items related to the issue of informed consent, with item 9 relating to the issue of the participant's *ability* to give informed consent, and item 10 relating to the actual gaining of informed consent. These issues were of extreme importance within this study given the non-therapeutic nature of the LH intervention, and will be discussed in more detail in the 'ethical issues' section presented later.

Sample size

Sample size was estimated by power analysis calculations for procedures one and two. This procedure effectively reduces the risk of erroneously accepting a null hypothesis when it is, in fact, false (Type

II error). Power analysis calculations applied STPLAN version 4.1 (Brown, Brauner, Chan, Gutierrez, Herson, Lovato & Polsley, 1996) and used interim data drawn from procedures one (n=45) and two (n=16) whereby variable data were assumed to be normally distributed within the population and to contain two samples with unequal variances.

These assumptions were evaluated by conducting preliminary statistics on data for all conditions used within STPLAN. This involved determining means and standard deviations for the main variables of interest, i.e. 'instrumental responses,' 'time taken to engage in instrumental responses,' and 'object assembly task' scores (procedure 1); and pre- test/ post- test changes in 'instrumental responses,' 'time taken to engage in instrumental responses,' and 'object assembly task' scores (procedure 2). Secondly, in order to *estimate* whether variable data were normally distributed within the population, a Kolmogorov-Smirnov test was conducted on data from the control group of procedure 1, again for all variables of interest. These data, which were drawn from participants who had not been exposed to any intervention, were deemed to be most representative of the wider population. Results from these tests are given in tables 6.2 and 6.3. These show that differences between group means were in the predicted direction, and that group variances were unequal. They also show that all Kolmogorov-Smirnov '*z*' values were non-significant, indicating that the data were normally distributed. As such, the assumptions relevant to STPLAN analysis were considered to have been met.

Different numbers of power calculations were conducted dependent upon the design of the procedure in question. For instance, procedure 1 adopted a triadic design, thus an STPLAN analysis was conducted for each of the three pair-wise comparisons. Procedure 2, on the other hand, adopted a two group design requiring only one STPLAN calculation. All calculations were made for the power values of 0.70; 0.80; 0.90; and 0.95, with sample size being distributed efficiently between the two groups under analysis, and for a two-tailed design adopting a significance level of α=0.05. This ultimately yielded a series of tables showing the sample size required for all pair-wise comparisons of variables at each of the power values specified above. These tables are presented in appendixes 3a, 3b and 3c for procedure 1, and appendix 3d for procedure 2.

Table 6.2 Interim Descriptive Data and Kolmogorov-Smirnov tests for Procedure 1

Group (n=x)	Variable	Mean	Standard Deviation	Kolmogorov-Smirnov (z)	Significance (p = x)
LHT n=14	IR TT OAT 1	13.2143 32.7143 7.5714	12.8373 21.9069 4.8153		
CONT n=19	IR TT OAT 1	28.7368 14.6842 14.2105	22.1180 21.6642 8.1757	0.75 1.25 0.53	0.63 0.09 0.94
LMT n=12	IR TT OAT 1	45.5833 3.0833 18.1667	18.1732 3.3967 7.6138		

Variables: IR= Instrumental responses (in secs); TT= Time taken to initiate instrumental responses (in secs); OAT = Object Assembly Task score; LHT= Learned helplessness training; CONT= Control group; LMT= Learned mastery training.

Table 6.3 Interim Descriptive Data for Procedure 2

Group (n=x)	Variable	Mean	Standard Deviation
CONT n=8	IRC TTC OATC	6.5000 - 8.0000 - 0.3750	13.4377 14.2026 3.0208
LMT n=8	IRC TTC OATC	40.6250 - 27.3750 4.1250	15.7202 21.4339 2.3566

Variables: IRC= Pre-test/ post-test changes in instrumental responses (in secs); TTC= Pre-test/ post-test changes in time taken to initiate instrumental responses (in secs); OATC = Pre-test/ post-test changes in Object Assembly Task score; CONT = Control group; LMT= Learned mastery training.

Sample sizes for this study were estimated from these tables based on a power of at least 0.80. Here, the triadic design of procedure 1 led the researcher to use the highest sample size recommended per research group across all variables (instrumental responses (IR); Time taken to initiate instrumental responses (TT); and Object Assembly Task scores (OAT)) and all pair-wise comparisons (appendixes 3a, 3b and 3c). This yielded initial sample sizes of n= 25 for the learned helplessness training (LHT) group; n= 34 for the control group (CONT); and n= 22 for the learned mastery training (LMT) group (overall n=81). However, to avoid empirical bias, participants continued to be allocated to groups on

the basis of randomisation (see the randomisation table for procedure 1, appendix 4), until *all* groups had reached the above sample size criterion. As a result, the final sample sizes for procedure 1 were n= 27 for the LHT group; n= 35 for the CONT group; and n= 22 for the LMT group (overall n=84). Having achieved these sample sizes, hypotheses 1-4 were tested and the randomisation table for procedure 1 discontinued.

With regard to procedure 2, the highest sample size recommended per group across the variables (pre-test/ post-test changes in IR; TT; and OAT) was adopted (appendix 3d). This yielded initial sample sizes of n= 17 for the LMT group; and n= 12 for the CONT group (overall n=28). However, once again the researcher continued to randomly allocate participants to groups (see randomisation table for procedure 2, appendix 4) until both groups had reached these sample size criterion, yielding final sample sizes for procedure 2 of n= 18 for the LMT group; and n= 17 for the CONT group (overall n=35). Having achieved these sample sizes, hypotheses 5 and 6 were tested.

It is worth noting that of the 35 participants involved in hypotheses testing in procedure 2, only 27 had previously been involved in procedure 1. Thereafter, 8 additional participants were submitted to LHT as a means of fulfilling the power analysis criteria for this secondary procedure. This was undertaken primarily to save time. For example, if the researcher had continued with the randomisation table for procedure 1 until all participants relevant to procedure 2 had been selected, he would have had to conduct many more trials for control and LMT participants. In short, he would have had to follow the randomisation table irrespective of the fact that participants in the control and LMT groups were superfluous to requirements. This would have added considerably and unnecessarily to the researcher's workload. Secondly, it would have been unethical to continue to disturb older patients for the purposes of research where this was not absolutely necessary.

Meanwhile, data from these additional 8 participants (procedure 2) were not included in the data set from procedure 1 because this would have been mathematically incorrect. For instance, the randomisation table for procedure 1, which would have given these participants an equal probability of being selected for either LHT, LMT or control groups, was no longer operative. Therefore, by

incorporating data from these participants into the data set for procedure 1, a certain amount of mathematical bias would exist due to the none random allocation of these participants to the LHT group.

Although sample sizes were adopted at a power of 0.80 for most variable comparisons, there was one exception to this. This was the comparison between the LMT and CONT groups for the Object Assembly Task scores in procedure 1 (see appendix 3b). This variable yielded a comparatively large sample size estimation, a function of a relatively small effect size d= 0.48. This raises the question of whether such an effect size is substantial enough to be relevant to this research, and thus worth pursuing. Based on the effects sizes achieved by other variables within in this comparison group (i.e. instrumental responses d = 0.93; and time taken to initiate instrumental responses d = 3.42) which are moderately greater, it was decided that the answer to this question was 'no.' This particular comparison (i.e. OAT scores between LMT and CONT) was therefore not taken into consideration in the evaluation of the sample size for procedure 1.

Overall, fifteen participants withdrew from the experiment. Of these participants, thirteen withdrew following the initial consenting process but before procedure 1; one withdrew following procedure 1; and one was discharged (suddenly) prior to test trial 1. No reason for the participant's voluntary withdrawal from the research was sought as the prevailing view of the ethics committee was that patient participants have the right to withdraw from research projects 'at any time, without having to give an explanation' (see ethics procedure presented later). However, where an explanation was offered, it would relate to either a general lack of interest in participating, or to future visits by relatives during the mealtime period (i.e. during research procedures).

Process of selection

As a result of the stringent selection criteria, and possible difficulties in finding sufficient numbers of participants who would meet them, a convenience sample was drawn from the study sites. The use of convenience samples within the LH paradigm is not uncommon, however, the researcher was aware that such a procedure could potentially lead to a sample being unrepresentative of the population as a

whole, thus compromising external validity. Nevertheless, given that the two phenomena under investigation (i.e. LH and LM) should present themselves fairly homogeneously within the population, the risk of bias was considered to be minimal. Another factor which may have affected the representativeness of the sample was the response rate for the experiment, which was fairly low at just above 50%.

Participants were randomly allocated to research groups using two randomisation tables created by Microsoft Excel (version 7). The first table presented a random sequence of numbers from 1 to 3, and was used to allocate participants to treatment groups in procedure 1. The second table presented a random sequence of binary numbers. These were used to determine the allocation of helpless participants from procedure 1, to the two conditions of procedure 2. These tables were ultimately combined into a single table which is presented in appendix 4. Finally, in obtaining participants, the study sites were placed on a rotational list and alternated list-wise only when the site of current use failed to yield new participants fulfilling the sampling criteria.

ETHICAL ISSUES

Ethics committee submission

A full research proposal was submitted to the Nursing and Allied Professions Research Ethics Committee (NAPREC) on December 2nd 1997. As a result of the committee meeting (December 12th 1997), a number of amendments were recommended (letter dated December 16th 1997, appendix 5b). These amendments related to 1/ the wording of a patient information letter; 2/ the use of the phrase "dementia sufferers" (NB. the first proposal required a sample of older people with dementia); and 3/ the issue of 'reactivity' resulting from the use of video observation (discussed later). These issues were attended to culminating in the author's letter of January 7th 1998 (appendix 5c) which was sent to NAPREC with amendments to the first proposal attached. Following the evaluation of these amendments by the committee, ethical clearance for all proposed research sites was granted on January 21st 1998 (appendix 5d).

Despite ethical clearance having been gained regarding this research, two late changes not included in the NAPREC resubmission, were required. These regarded 1/ the use of a sample of older people rather than older people with dementia; and 2/ the inclusion of the Object Assembly Task of the WAIS-R-UK within the experimental testing phase. These protocol changes were presented to NAPREC on April 20th 1998 (appendix 5e), with ethics approval being received on April 22nd 1998 (appendix 5f).

Approaching prospective participants

The researcher was introduced to prospective participants deemed suitable (i.e. fulfilling numbers 1-4 and 6-9 of the selection criteria) by their named nurse (or team nurse). During this initial meeting the researcher would give a brief oral overview of the research prior to enquiring whether patients were willing to participate. If willing, patients were then given more details about the project by discussing the contents of the study's information letter (see appendix 6). A copy of this letter would be given to the patient, and a further meeting arranged for the following day when the formal consenting procedure could take place. The gap between this initial meeting and the signing of the consent form was primarily to allow prospective participants time to discuss the research with relatives or nursing staff, and to consider any questions that they might have with regard to their participation. Subsequently, it was hoped that a patient's decision to participate would be made of their own free will, and not as a result of the enthusiasm or presence of the researcher. These strategies were important as patient involvement in the research could be up to two days (six meals), it was imperative to secure 'willing' participants who would stay the course, rather than 'reluctant' participants who might withdraw at a later point.

The second meeting between the researcher and prospective participants involved the researcher enquiring if a patient was still interested in participating with the research and whether they had any questions regarding the experimental procedure. This second meeting also provided an opportunity to show patients the video equipment which would be used. If, after this, patients were still happy to participate, they would be guided through the formal consenting procedure which involved answering 'Yes/No' to the following questions:

1/ Have you read the invitation letter/ information sheet?

2/ Have you had an opportunity to ask questions and discuss the study?

3/ Have you received satisfactory answers to all your questions?

4/ Do you understand that you are free to withdraw from the study:

- at any time?
- without having to give a reason?
- and without affecting you future care?

Where patients were able to answer "Yes" to all of the above questions, and still wished to participate in the study, they would then sign the research consent form (appendix 7).

Storage of data

Video data were stored in a locked cupboard at the research department in accordance with the Data Protection Act (1998). These data will be either destroyed or returned to the patient (patient's relatives) after 5 years. Paper notes, on the other hand, were transferred to computer at the earliest opportunity, with redundant papers being destroyed. Computer records were kept at Oxford Brookes University main server, and could only be accessed by the researcher (password). These records will to be kept for up to 5 years and will then be deleted. Patient names were not recorded in the main study, each individual being known only by their subject number. As well as protecting the identity of patients, care was taken not to disclose the identity of the study sites used. These are known only to the researcher and his supervisor outside of the departments themselves, and documented in terms of site '1, 2, 3,' etc.

Video issues

Several ethical issues related specifically to the collection of video data, with violations of privacy and confidentiality being the primary risks of using this medium. Ethical safeguards relevant to these issues were influenced by the articles of Renne, Dowrick and Wasek (1983), and Maxwell and Pringle (1983). These included the following:

- All participants were informed that a video recording would be made of them eating their meals during *all* experimental sessions. (NB. However, the fact that the video would only be recording during the test trial was not stated).

- Participants were shown all recording apparatus prior to formally consenting to participate.

- The researcher stated the reasons for using a video recording (i.e. to gain an accurate record of the patient's meal related responding); specifically who would have access to the video tapes (i.e. the researcher and one other researcher); how the tapes would be stored; and when they would be erased (see above).

- Finally, the inter-rater (i.e. the second researcher with access to the video data) was briefed as to the confidential nature of the video data.

Mental incapacity and informed consent

Item 9 of the previously stated selection criteria stipulates that participants should not be cognitively impaired (item 9), a circumstance which relates to the ethics procedure in so much as participants must be capable of giving informed consent. However, to what extent are older people capable of giving informed consent? For instance, a patient might give the impression that they understand the information provided regarding the research, but may be merely covering up for an underlying dementia or other organic brain disorder. This issue is even more salient if recent guidelines drawn up by the British Medical Association and The Law Society (1995) regarding the capacity of individuals to consent to research are taken into account. These state that whilst there is a growing trend towards seeing non-therapeutic research carried out on mentally incompetent individuals as '*ethical*,' it is doubtful whether such research would be considered *lawful*. In their argument they cite the Law Commission Report 231, para 6.29, which states that:

> *"If...the participant lacks capacity to consent to his or her participation, and the procedure cannot be justified under the doctrine of necessity, then any person who touches or restrains that participant is committing an unlawful battery."*
>
> (Law Commission Report 231, para 6.29. Cited in British Medical Association and Law Society, 1995, p82)

With regard to this, it is worth bearing in mind that intervention #1 (i.e. learned helplessness training) is predicted to lead to the negative outcome of LH and therefore represents a non-therapeutic intervention. It thus follows that to conduct this intervention on patients who are mentally incapacitated is, according to the crown, an *unlawful assault*.

In order to understand mental incapacity, one may turn to a draft of the Mental Incapacity Bill (1995) where a person is described to be without capacity if at the material time:

> *"he is unable by reason of mental disability to make a decision for himself on a matter in question; or unable to communicate his decision on that matter because he is unconscious or for any other reason...(For instance)... he is unable to understand or retain the information relevant to the decision, including information about the reasonably foreseeable consequences of deciding one way or another or failing to make the decision."*
> (Mental Incapacity Bill (draft) part 1, Chapter 1.2 p108)

Although this definition of mental incapacity provides guidance to the researcher, it is insufficient in as much as it fails to take the different forms of mental incapacity into account. Moreover, it fails to recognise the potential for mental incapacity to be partial or to fluctuate, and thus provides the researcher with scant information regarding the identification of such individuals. Nevertheless, this definition, by indicating that individuals need to 'understand and retain' information prior to responding appropriately to it, would seem to suggest that mentally competent individuals require sufficient levels of attention, memory and linguistic skills. It was for this reason that the Mini Mental State Examination (MMSE) was useful as a means of assessing these abilities.

The MMSE of Folstein, Folstein and McHugh, (1975), (presented in appendix 8) is split into two sections. The first evaluates orientation, memory, and attention, and the second evaluates ability to name, follow verbal and written commands, write a sentence spontaneously, and copy a complex design. It has been shown to be both a valid (concurrent validity testing using the performance and verbal scales of the WAIS yielded correlations of $r=0.66$ ($p<0.001$) and $r=0.77$ ($p<0.0001$) respectively), and reliable (test-retest reliability over 24 hours and 28 days yielded correlations of $r=0.88$ and $r=0.82$ respectively) measure of cognitive impairment. Moreover, scores of twenty or less (out of thirty) have been found to be associated with the mental disorders of dementia, delirium, schizophrenia, and a variety of affective disorders, but *not* with 'normal' elderly patients (Folstein *et al*, 1975). MMSE scores of between 21-30 may therefore be seen as indicating, at best, no cognitive impairment, and at worst, a very mild cognitive impairment. As such, individuals scoring within this range should be deemed mentally competent, and capable of making an informed decision regarding participation in the current research project. The MMSE was therefore conducted on all participants in the experimental phase of this research, and only those scoring between 21-30 were recruited as participants (NB. the MMSE was conducted immediately after the participants had consented to participate in the study).

Issues related to the use of a non-therapeutic intervention

The use of LHT within the experimental design has been previously justified through the claim that without demonstrating LH effects relative to an individual's exposure to non-contingent circumstances, it is difficult to say that LMT (i.e. the therapeutic intervention) has specifically alleviated LH as opposed to any other dependency inducing phenomenon (i.e. sick role, instrumental passivity, self regulated dependence etc.). However, although LHT is a crucial component of this study's methodology, it is non-therapeutic in so much as the researcher was aware that it could lead to patients developing an extrinsic dependence. As such, the researcher found himself attempting to negotiate an array of thorny ethical issues, some of which have already been mentioned. Paramount among these issues, are those which relate specifically to the non-therapeutic intervention itself, i.e. LHT. Consequently, the researcher attempted to safeguard participants in three ways.

Firstly, with regard to the question "how many LHT interventions are required" the researcher had to find a balance between *sufficiently* and *ethically* inducing LH. Regarding this issue, the research of Avorn and Langer (1982), which submitted elder participants to LHT over four 20 minute sessions (i.e. over-assistance within a psychomotor task), was used as a guide. From this paper it was decided that because LHT in this study involved over-assistance with an important ADL (eating and drinking), rather than a psychomotor task, the number of LHT sessions could be reduced from four to two. However, by reducing the number of LHT interventions, one runs the risk of there being a trade-off with regard to the sufficiency of the intervention. Subsequently it was decided to evaluate the extent to which a reduced intervention would compromise the research by conducting a pilot study. From this, a decision could be made as to the adequacy of the LHT dependant upon the level of effect between the interventional and control groups.

A second ethical issue related to the fact that LH theory fails to specify the valence of non-contingency. For instance, according to the theory, positive non-contingency ought to lead to LH effects just as much as negative non-contingency. Indeed this has been demonstrated in the research of Eisenberger *et al* (1976) and Griffith (1977). There was therefore no need to submit patients to negative non-contingent stimuli, such as electric shocks or aversive noise, which could be deemed

unethical. Instead, patients in the present study were exposed to positive non-contingency (over-assistance with meals), with food representing a somewhat more pleasurable stimulus. It is also worth noting that the depressed (or sad) affect which is predicted to occur by LH theory, has not been found when participants are exposed to a positive non-contingency (Griffith, 1977). Therefore, the utilisation of a positive non-contingency reduced the risk of patients developing this affect.

Finally, it is important to note that all participants submitted to LHT, and thus at risk of developing LH, underwent a LMT intervention as a means of alleviating any residual LH effects. For instance, with 'helpless' participants in the LMT group of procedure 2, this alleviatory process occurred within the research design itself. For 'helpless' participants in the control group of procedure 2, however, this alleviatory process occurred at the end of the research during the feedback process. Here, participants were informed of how the mealtime event was made less controllable during LHT in procedure 1, and that they should attempt to perceive future mealtimes as being under their control. This feedback was, in essence, the same as the LMT intervention, whereby the individual's expectation of non-contingency was changed to an expectation of contingency.

RESEARCH INSTRUMENTS

Specific LH and LM effects (The Meal Test)

Specific LH and LM effects were measured as a function of: 1/ the overall time that participants were engaged in meal related instrumental responses (seconds); 2/ the time taken for participants to engage in instrumental meal related responses (seconds); and 3/ whether the participant achieved criterion (i.e. put food to lips), (nominal measure: no = 0, yes =1), during the one minute test trial. Other measures included 1/ the overall time participants were engaged in exploratory responses (seconds); 2/ the overall time participants remained passive (seconds); and the overall time participants were engaged in other, non-meal related responses (seconds). These additional responses, though not directly relevant to this method, were found to occur during the test trial meals (see pilot study 1), and were used to provide the researcher with a frame of reference when evaluating the responses of participants during the test trials.

Operational definitions

1/ Instrumental behaviour (measured in seconds during the one minute test trial)

Instrumental behaviour is described by Reber (1985) as being

> *"Very generally any behaviour or act that is goal directed, a means to an end.. (Here).."the occurrence of the proper response is instrumental in producing the reinforcement."*
> (Reber, 1985, p363)

Other definitions from within the LH paradigm include:

> *"Actions for moulding the environment"* (Mikulincer, 1994, p15)

> *"Behaviours which produce positive reinforcement and a sense of control"*
> (Nolen-Hoeksema, 1991, p574)

Operational definition
In the context of the mealtime event, goal directed behaviour relates to the consumption of food, a process which ultimately leads to a reduction in the individual's sensation of hunger, and thus positive reinforcement. *An instrumental response during the mealtime event is therefore any response which facilitates the ultimate consumption of food.*

For example:
- Repositioning self nearer to the food
- Removing plate covers
- Placing napkin on lap
- Picking up and loading cutlery
- Transporting food from plate to lips
- Mastication .....*etc*

All of these behaviours are a means to an end, as they all lead inexorably to the consumption of food.

2/ Exploratory behaviour (measured in seconds during the one minute test trial)

Of this behaviour Reber (1985) wrote:

> *"If one places an organism in a novel environment one will generally observe a series of movements and acts the apparent purpose of which is to bring the organism into contact with various portions or aspects of the surroundings."* (Reber, 1985, p259)

Reber considers exploratory behaviour to be natural and common among locomoting species where information about the nature of novel situations is required so as to be able to make appropriate responses.

Operational definition
In the context of the mealtime event, exploratory behaviours are *actions* which have the purpose of gaining information about the mealtime event (specifically the meal tray), *and which are clearly not instrumental in the consumption of food.* For example:

- Removing the plate cover (to see what the meal is) then replacing it.
- Reading a menu card (again to see what the meal is).

NB. Simply looking at the food tray does not constitute exploratory behaviour, a *movement* or *act* is required.

3/ Passivity (measured in seconds during the one minute test trial)

Operational definition
According to Reber (1985) passivity is:

> *"Not active, at rest" and is characterised by "a submissive posture whereby one allows oneself to be controlled by outside influences or persons"* (Reber, 1985, p520)

This definition remains the same within the context of the mealtime event.

4/ Other responses - non meal related (measured in seconds during the one minute test trial)

Operational definition
Any response which is not meal-related. For example:

- Reading a newspaper.
- Picking up a tissue to blow one's nose.

5/ Achieving criterion (nominal measure)

Operational definition
This is a measure of whether a participant actually puts food to lips during the one minute test

Recording and processing data

Non-participant observation was conducted using a fixed position non-concealed video camera. This camera was positioned so that both participants and their side tables were visible through the viewfinder and manually switched to record immediately after assembly (i.e. several minutes prior to the test trial). The one-minute test trial commenced once the meal tray was placed in front of the participant by the researcher. Thereafter, the researcher left the research setting and was not visible to the participant for the duration of the test trial. After one minute, the researcher returned and the test trial would be over (see procedure section for more detail).

Following the test trial, the video recording was assessed using a Bush VCR 185 video recorder/player. This was undertaken using the following procedure.

1/ Setting 00 at the start of the test trial.

All test trials commenced with the researcher placing a tray of food in front of a participant. The start of the test trial was considered to be the moment that the experimenter's hands had left the food tray. This 'moment' was spooled, using the pause/play facility on the video player, until a paused image

showing that the tray had been released by the researcher was achieved. At this point the video timer facility was calibrated to zero and the analysis could begin. Each test trial was for 60 seconds only.

2/ Registering responses.

The researcher used an "observational record of mealtime responses" sheet to enter data. This record sheet was adapted from Van Hooff (1982, p368), (see appendix 9) and includes four time scales, one for each type of response (i.e. instrumental responses, passivity, etc.), as well as spaces for recording other information (i.e. time taken to make first instrumental response, criterion achieved, etc.). During the analysis, the test trial was firstly played through in its entirety in order to orientate the researcher to the types of participant responses made. The tape was then rewound to the start of the test trial using the 'go to zero' facility, and observational analysis would commence (as each observation was only one minute long, time sampling procedures were not used).

All active responses were registered from the moment the participant touched an object (which would be either explored or used instrumentally), to the moment an object was released. The temporal position (during the test trial), duration, and type of response were then entered onto the record sheet using a highlighter pen (see appendix 10 for an example of a completed record sheet). If at any time the participant made no response, this was also recorded from the moment of non activity (be this at the start of the test trial, or following a response) to the moment the participant touched an object (which would be either explored or used instrumentally). N.B. Mastication was included as an instrumental response when the researcher observed the chewing and swallowing movements of participants.

3/ Sequences of responses.

Where a participant was engaged in a sequence of several related responses (for instance, *removing a food cover - gathering cutlery - cutting food*) time was recorded throughout the sequence and accredited to the appropriate behaviour group (i.e. instrumental responses) until there was a change in this behaviour. However, if there was a gap of more than two seconds between the end of one

response (i.e. removing a plate cover), and the beginning of another (gathering cutlery), then the intermediate time was classed as an alternative response (i.e. passivity).

4/ Totalling overall times

Once a test trial had been assessed, the following information was extracted from the time scales.

- Time taken to make the first instrumental response during the test trial (maximum 60 seconds).
- Overall responses for each category i.e. instrumental; exploratory; passivity; & other non-meal related. (summed totals; maximum 60 seconds).
- Whether criterion was achieved, i.e. did the participant put food to lips during the test trial? (nominal score of 0 or 1 relating to 'no' or 'yes').
- A description of "Other responses (non-meal related)," should these be present.

Validity Issues

The internal validity of the dataset in the observational phase of the experiment was based on the recognition and accurate recording of responses during the test trial which, in turn, were based on the operational definitions as set out above. There are, however, two potential threats to the validity of these data, these are 1/ the 'Clever Hans' effect and 2/ 'reactivity' effects.

1/ The Clever-Hans effect

The 'Clever-Hans' effect was first described by Pfungst (1911), and has come to stand for "*any situation in which one unconsciously controls the results of a study or the behaviour of others by subtle, implicit communication*" (Reber, 1985, p125). With regard to the current experiment, this effect could come into play at the beginning of the test trial when the researcher places the meal tray in front of the participant. Here, subtle cues could be transmitted by the researcher indicating to participants that they should (or should not) commence eating, a circumstance which would ultimately corrupt the measurement of LH and LM effects.

It is difficult to eradicate the Clever Hans effect completely from this research, especially as its emphasis is on the 'unconscious' control of behaviour. However, several steps were undertaken in an attempt to limit its effects. These included the non-presence of the researcher during all but the initial few seconds of the test trial, thus necessitating the use of a video camera for the purposes of observation (of course the camera can give no subtle cues). Secondly, and crucially, during the initial

transaction between the researcher and participant (i.e. the handing over of the meal tray), no verbal response was given by the researcher, eye contact was avoided, and once the researcher had vacated the research setting, he remained out of view to the participant until the end of the test trial.

2/ Reactivity

Reactivity may be simply defined as the "effect of the observation process on the observee" (Renne, Dowrick & Wasek, 1983, p23). Such effects are of concern to the behavioural scientist as they have the potential to contaminate the behavioural responses under investigation, manifesting themselves as changes in gesture, direct references to the camera, and changes in the amount of focal behaviour. Furthermore, reactivity effects have been found to be as relevant to video as they are to alternative forms of observation (Carmichael, 1966; Gelso, 1973; Decker, 1976), although some authors have suggested that the use of video can reduce reactivity compared to alternative forms of observation (i.e. the use of human observers). For instance Wiemann (1981) assessed the potential reactivity of four different videotaping procedures in a study of conversational behaviour with 158 undergraduates. Findings showed no significant differences in the behavioural indices of relaxation/ anxiety or responsiveness due to the obviousness of video recording procedures. These findings, and the findings of others (see Carpenter & Merkel, 1988), have prompted many researchers to use video observation for the very purpose of overcoming the "constraints of laboratory situations and reactivity to proximal observers" (Pepler & Craig, 1995, p548). Others, however, maintain the view that reactivity caused through the use of video recording remains a significant validity threat within observational research (see Renne *et al*, 1983). As a result, a number of strategies were undertaken in an attempt to reduce reactivity. These strategies have been influenced by the work of Renne *et al* (1983) and are as follows:

1/ Preparation:
This involved discussing the study with participants as thoroughly as possible, especially the use of video observation, prior to gaining their informed consent (see ethical issues).

2/ Familiarisation:
This involved acquainting participants with the video equipment used, procedures for videotape processing and storage, and a knowledge of who would have access to the videotapes (see ethical issues).

3/ Programming
This involved allowing participants to become accustomed to being video recorded prior to the test trial. For instance, the video recorder was set up and recording (participants were informed of this) several minutes prior to the commencement of the test trial.

4/ Minimisation
Although the video camera was visible, all efforts were made to ensure that it was not in the *direct* view of participants (i.e. it was situated at right angles to them). Other important points include the fact that the camera noise was inaudible, no operator was required during the recording, no additional lighting was used, and the camera 'recording' light was covered and thus not visible.

Reliability Issues

Measures of participant responses were evaluated through two techniques from the perspective of reliability: 1/ inter-rater reliability and 2/ test-retest reliability. Inter-rater reliability was conducted using video recordings from fifteen, randomly selected test trials (random numbers were generated from 1-45 using Microsoft Excel - version 7). These test trials were selected from pilot study 2 (n=45) and were re-recorded onto a separate video tape to facilitate consecutive viewing. The inter-rater was a social scientist from Oxford Brookes University who used the operational definitions and video data processing procedure as outlined above. Original data were taken from the researcher's original pilot study analysis.

Correlations were conducted using a Spearman rank order correlation coefficient on the following variables: 1/ time taken to make first instrumental response; 2/ overall time engaged in instrumental responses; 3/ overall time engaged in exploratory responses; and 4/ overall time spent passive. (NB. An analysis of the variable 'other responses (non meal related)' was not conducted as only one short episode of such a response was recorded out of fifteen test trials evaluated by the two raters, thus making any statistical analysis meaningless). The use of a non-parametric correlation relates to the fact that with such a small sample size (n=15), it was difficult to determine the variances between groups without the introduction of statistical bias. Therefore the parametric assumption of equal variances between groups could not be ascertained leading to the adoption of a non-parametric alternative test. The emphasis of Spearman's correlation on the ranking of data therefore makes it an appropriate choice as most of the assumptions normally associated with parametric testing are irrelevant. Although data are required to be of at least an ordinal level (in this study, data used within the Spearman correlations were at a ratio level, i.e. time).

Correlations regarding nominal data, on the other hand, were conducted using Cohen's Kappa on the criterion variable (i.e. whether the participant puts food to lips during the test trial). This test is ideal for measuring the agreement between the nominal evaluations of two raters when both are measuring the same object. Results and significance levels from these tests are presented in tables 6.4 and 6.5, and show significant correlations between the two raters on all variables tested.

Table 6.4 Inter-rater Reliability for Observations of Instrumental Responses, Exploratory Responses, Passivity, and Time Taken to Initiate Instrumental Responses Using a Spearman Correlation.

Observed variable	Sample (n =x)	Spearman rank order correlation (r)	Significance (p< x)
Time taken to initiate instrumental responses (secs)	15	0.823	0.01
Overall instrumental responses (secs)	15	0.826	0.01
Overall exploratory responses (secs)	15	0.587	0.05
Overall passivity (secs)	15	0.752	0.01

Table 6.5 Inter-rater Reliability for Observations of the Participant's Attainment of Criterion Using Cohen's Kappa Correlation.

Observed variable	Sample (n= x)	Cohen's Kappa statistic (K)	Significance (p< x)
Attainment of criterion	15	0.857	0.01

Test retest reliability was conducted using the same fifteen test trial recordings as were used in the inter-rater assessment. These recordings were originally analysed during pilot study 2 by the researcher and were now reanalysed (NB. the gap between initial analysis and reanalysis was at least one month for all trials). Correlations were once again conducted using a Spearman rank order correlation coefficient (rationale as mentioned above for the inter-rater tests) on the following variables: 1/ time taken to make first instrumental response; 2/ overall time engaged in instrumental

responses; 3/ overall time engaged in exploratory responses; and 4/ overall time spent passive. (NB. An analysis of the variable 'other responses (non-meal related)' was not conducted for reasons previously mentioned above). Correlations regarding nominal data, on the other hand, were conducted using Cohen's Kappa on the criterion variable. Results from these tests and significance levels are presented in tables 6.6 and 6.7 and show significant correlations between the pre- and post-test analyses with regards to all variables tested.

Table 6.6 Test-retest Reliability for Observations of Instrumental Responses, Exploratory Responses, Passivity, and Time Taken to Initiate Instrumental Responses Using a Spearman Correlation.

Observed variable	Sample (n =x)	Spearman rank order correlation (r)	Significance (p< x)
Time taken to initiate instrumental responses (secs)	15	0.946	0.01
Overall instrumental responses (secs)	15	0.920	0.01
Overall exploratory responses (secs)	15	0.728	0.01
Overall passivity (secs)	15	0.864	0.01

Table 6.7 Test-retest Reliability for Observations of the Participant's Attainment of Criterion Using Cohen's Kappa Correlation.

Observed variable	Sample (n= x)	Cohen's Kappa statistic (K)	Significance (p< x)
Attainment of criterion	15	1.000	0.01

Generalised LH and LM effects (The Object Assembly Task)

Generalised LH and LM effects were measured using the 'Object Assembly Task' (OAT) of the Wechsler Adult Intelligence Scale- revised- incorporating British amendments to the administration section (WAIS-R-UK), (1986). This test required participants to assemble four objects split into differing numbers of parts. These objects are as follows: 1/ mannequin (six parts); 2/ profile (seven parts); 3/ hand (seven parts); and 4/ elephant (eight parts), (see appendix 11). Objects were presented

sequentially using a fragmented array according to the instructions in the WAIS-R-UK, with participants having to assemble each object within a predetermined time limit. These time limits were 120 seconds for objects 1 and 2, and 180 seconds for objects 3 and 4 (see procedure section for details of the task utilisation and instructions).

OAT scores depended upon the accurate assembly of an objects constituent parts (i.e. the number of cuts correctly joined at the 'X,' see diagram in appendix 12), plus a maximum of three bonus points (per object) for speedy completion (maximum score=41). These bonus points were awarded according to the predefined parameters shown on the OAT scoring scale (appendix 13). Records were documented on the OAT score sheet, a completed example of which is shown in appendix 14.

Validity issues

To date, the OAT has not been utilised within the LH paradigm as a measure of such performance effects, although other sub-components of the WAIS have been used in this way (i.e. the Block Design Task as used by Dyck & Breen, 1978). However, despite the OAT being unknown to the LH paradigm, common sense alone would suggest that it is an appropriate measure for LH and LM effects. For instance, the OAT requires the selection, organisation and implementation of voluntary instrumental responses to solve a problem, the suggested criteria of any measure of LH (or LM) according to Mikulincer (1994).

The use of the OAT as a performance measure led the researcher to monitor a number of potentially fatal validity threats. For instance, if one bears in mind that the OAT is a sub-component of an intelligence test, it is inevitable that natural intelligence, and to some degree age (intelligence, as measured by the WAIS, has been shown to decrease with age, Wechsler, 1981), have the potential to influence OAT scores. As such, intelligence and age have the capacity to act as confounding variables, especially if unevenly distributed between the experimental groups. Although difficult to account for this without stratifying the sample, it was hoped that the random allocation of participants to groups would lead to an approximately even distribution of these factors between groups. This

would be retrospectively evaluated at the conclusion of the field work by assessing the differences between groups on the variables of age and mental state (MMSE), (reported in the results chapter).

One final issue concerns gender differences related to mental rotation. For instance, the constituent parts of each object in the OAT were not all presented in the correct orientational plain relative to the object's appearance when complete. This could advantage participants who have good spatial skills (i.e. mental rotation), effectively increasing their chances of reaching a solution. With regard to this issue, it is well documented that men frequently outperform women on spatial tasks (see Vingerhoets, Lannoo & Bauwens, 1996; DeLisi & Cammarano, 1996; Norvik & Amponsah, 1998), thus male participants in this study may be advantaged when performing this task (NB. surprisingly, this issue is not alluded to by Wechsler, 1981). Gender could therefore represent another confounding variable, especially if the gender makeup between experimental groups were found to be significantly different. Once again, it was hoped that the random allocation of participants to groups would lead to an approximately equivalent gender mix in all experimental groups. Nevertheless, descriptive data were collected on participant gender, and retrospective tests of difference conducted at the conclusion of the field work (reported in the results section).

Reliability Issues

Two types of reliability testing have been conduced on the OAT of the WAIS-R, including split-half and test-retest reliability. Split half reliability was conducted by Wechsler (1981) using odd verses even items (i.e. items 1 & 3 vs items 2 & 4) on participants from nine different age groups. The correlation coefficient between the two resulting scores was corrected using a Spearman-Brown formula to yield a coefficient for the full length of the test. For age groups 65-69 and 70-74 participants yielded 'corrected' reliability coefficients of r= 0.67 and r= 0.62 respectively (NB. sample sizes for these tests are not reported). Test-retest reliability was also conducted by Wechsler (1981) using two age groups. Within the 45-54 age group, the OAT was submitted twice to 48 participants with the time interval between submissions varying between 2 and 5 weeks. Despite practice effects, the stability coefficient was satisfactory at r= 0.67.

PILOT STUDIES

Pilot study one

Pilot study one was conducted with just three participants, one from each of the groups in the triadic design (LHT, LMT, and control). The principle aim of this study was to evaluate the types of responses that individuals could make to their meals. This information was important for the development of the operational definitions used in the observational measurement of responses during the test trial meals. The four categories of response which were observed are presented in the instruments section above.

A second aim of this initial study was to evaluate the practicability of the study's procedures. As a result of this the test trial meal, which was initially five minutes, was significantly shortened to one minute. There are several reasons for this. Firstly, if the researcher was to leave the study setting for five minutes after presenting the participant with their meal, it could cause participants to suspect that the supper time meal was in some way different to the other meals utilised within the study, thus affecting the participant's responses during the following supper (i.e. test trial 2). Secondly, the kitchen departments on all of the sites had a policy of not re-heating food once it had been delivered to the patients (i.e. using a microwave). Therefore if a participant did not respond to his meal during the five minute test trial and it were to go cold, then there was little that the researcher could do. It was therefore clear that the test trial would have to be reduced in length. Subsequently, the test trial was reduced to one minute on the basis that this period of time was sufficient for participants to initiate instrumental responses relevant to their meals.

Pilot study two

The aim of pilot study two (n=45) was to evaluate the effectiveness of the interventions (LHT and LMT) within the study, and to conduct a power analysis as a means of estimating the overall sample size required. Regarding the first aim, it has been previously mentioned in the ethics section that the researcher was caught in a dilemma between sufficiently inducing LH and ethically inducing LH. As such, the level of intervention was kept moderately low (i.e. two training meals) and would be adjusted as a function of the results of the pilot study, should the level of training be adjudged

insufficient to cause effect. This adjustment would be based on an evaluation of whether 1/ the group means for the main variables of interest were in the predicted direction; and 2/ whether the sample size required in order to achieve a power of 0.80 was manageable within the time allocated for the data collection (i.e. 7 months).

With regard to the first point, the means for the main variables of interest (procedures 1 and 2) were all shown to have moved in the predicted direction (means and standard deviations for procedures 1 and 2 are presented in tables 6.2 and 6.3). Secondly, the sample sizes required in order to attain a power of 0.80 (see appendixes 3a to 3d) were deemed achievable within the allocated data collection period, with the exception of the OAT variable between the LMT group and the control group of procedure 1 (details of power analysis procedures can be found in the sampling section presented earlier). It was therefore decided to refrain from adjusting the level of intervention in the study, which would remain as two training meals for both LHT and LMT.

PROCEDURE

Overview

All experimental procedures took place over two days (please refer to Figure 6.1). On *day one* (procedure 1), participants in the LHT and LMT groups were exposed to interventions during breakfast and lunch time meals. The control group, on the other hand, had breakfast and lunch as normal on the ward in the absence of the researcher. Test trial 1 was conducted during the supper time meal, with the OAT being presented immediately afterwards for all participants. *Day two* (procedure 2) of the research only involved participants from the LHT group of day one. These participants had been randomly allocated to either a LMT group, or a control group. Those participants in the LMT group were exposed to this intervention during breakfast and lunch time meals. Participants in the control group, however, had breakfast and lunch as normal on the ward in the absence of the researcher. Test trial 2 was conducted during the supper time meal, with the OAT being conducted immediately afterwards. Schedules for procedures one and two are presented below in tables 6.8 and 6.9.

Table 6.8 Research Schedule for Procedure 1

		Intervention/ Test		
Day	Meal	LHT Group	Control Group	LMT Group
1	Breakfast	Intervention 1	-	Intervention 2
	Lunch	Intervention 1	-	Intervention 2
	Supper	Test Trial	Test Trial	Test Trial

Table 6.9 Research Schedule for Procedure 2

		Intervention/ Test	
Day	Meal	LMT Group	Control Group
2	Breakfast	Intervention 2	-
	Lunch	Intervention 2	-
	Supper	Test Trial	Test Trial

Instructions

Participants were given no directive instructions prior to the experimental interventions, although all participants were privy to information regarding the study through the information sheet (see appendix 6). Relevant aspects of this sheet were also repeated to participants shortly before the commencement of the interventions using the following statement:

> "This research involves the assessment of your responses during mealtimes. It is being conducted to find out if people's mealtime responses are different depending on how a meal is presented. Your participation in the study will involve *one mealtime/ three mealtimes/ four mealtimes/ six mealtimes* which will include (*suggest which meals involved i.e. breakfast, lunch, supper, over how many days*) as we agreed. During the study, you will receive the food that you ordered on the hospital menu, similar to the other patients on the ward. However, unlike the other patients, a researcher will bring your meal tray rather than a nurse. You will also be aware of an unmanned video camera set up beside you. This will automatically record your mealtime responses during each of the agreed meals. As well as the observation of meals, the researcher will conduct an object assembly task. This task will assess dexterity and space relations and take no longer than 15 minutes. At the end of the research I'll give you a full debriefing. All information gained throughout the study will be handled in the strictest of confidence, and in accordance with the data protection act."

It is worth noting that participants were given the impression that the video would record all the mealtime sessions, whereas in fact, the only sessions which were recorded were the test trials. This situation was instrumental to the experimental procedure in so much as it tacitly legitimised the interventional phase of the research to participants, especially the researcher's interventions during LHT. Secondly, participants were made aware that the video would work in the absence of the researcher. This point was accentuated each time the video camera was set up, by informing participants that "the camera is recording," a situation which was also instrumental to the experimental procedure. For instance, if the researcher hadn't made participants aware that the camera was working and would continue to work in the researchers absence, participants may not have responded during the test trial simply because they thought that the camera needed turning on. By stating clearly that the camera was recording, this circumstance may be discounted.

Environmental set up

The experiment was conducted within the patient's personal living space on the ward (i.e. the bed and locker area). This was enclosed either naturally through side room walls, or artificially through the use of curtains. This enclosed environment was therefore akin to laboratory conditions with the hospital context preserved. Prior to each intervention or test trial, the participant would be asked where they would like their meal. The vast majority of participants wished to have their meal sitting by their bed with the bedside table in front of them. The room was arranged accordingly. The video camera (Sharp camcorder VL-C7950H and tripod) was then set up at right angles to the participant so that it was not in their direct view (see instruments section, and 'reactivity'). A schematic representation of the video set up is given below in figure 6.1.

The meals used during the study were from the hospital kitchen of the study site in question. Every care was taken to ensure that participants received their correct meal relative to their menu. These meals were presented on the meal tray according to ward norms, with the exception that salt, pepper and sauces would also be placed on the tray where appropriate (N.B. salt was not given to participants on a low sodium diet). Finally, all hot food was temperature checked by the hospital's catering staff to ensure that it was suitably warm prior to serving. These precautions, which were consistently applied

for all participants, aimed to ensure that participant's responses were not unduly affected due to a dislike of the food presented, or the non-availability of condiments.

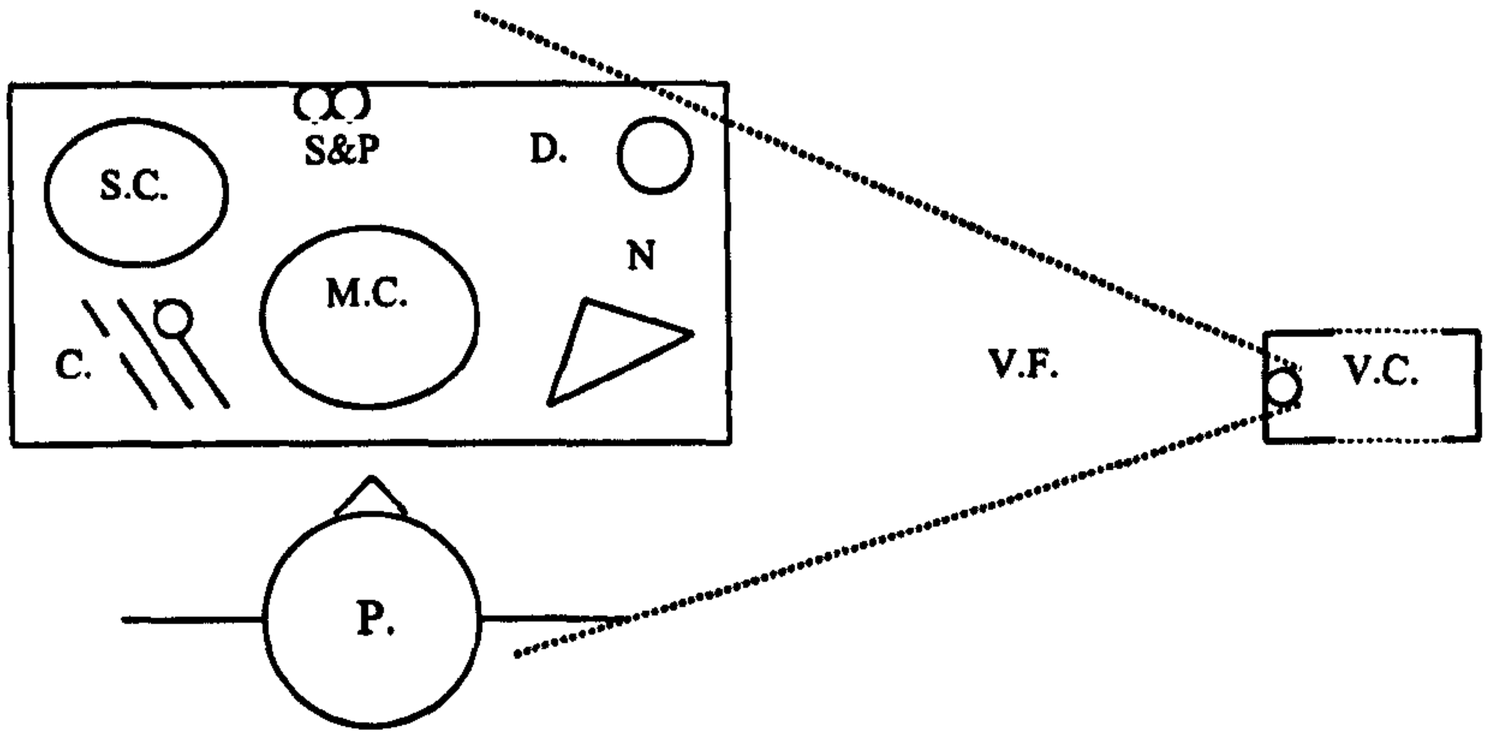


Figure 6.1. Video Camera Set-up with an Example Meal.

KEY. M.C. =main course; S.C. = sweet course; S &P = salt and pepper; D.= drink; N.= napkin; C.= cutlery; P.= participant; V.F. = Visual field; V.C. = video camera).

All interventions and test trials were conducted by the researcher. During these, staff were requested to refrain from entering the experimental environment (unless an emergency). Furthermore, participants were requested to ask their relatives to refrain from visiting during mealtimes for the duration of the experiment, a request which was complied with surprisingly well. Secondly, social interaction was kept to a minimum throughout all interventions. For instance, many participants would attempt to strike up a conversation with the researcher, usually concerning an issue relevant to the research itself. However, where a conversation occurred, the researcher would respond politely but then halt the conversation relatively quickly. The reason for this was to prevent any imbalance in social interaction between experimental groups. As well as reducing the level of social interaction during experimental procedures, the researcher also refrained from communicating social approval or disapproval regarding the responses made by participants. These types of responses are particularly relevant to this project as they relate to the theory of instrumental passivity (Lester & Baltes, 1978). This theory, presented earlier, suggests that patient passivity may be induced by nurses socially reinforcing dependent behaviours through a process akin to operant conditioning. Finally, the

researcher refrained from contacting participants prior to the meals arriving on the ward from the kitchen.

Intervention 1 (Procedure 1)

Learned Helplessness Training:

LHT was conducted over two consecutive meals (breakfast and lunch) and involved the researcher assisting participants with all meal related responses other than the loading of cutlery and the transfer of food from plate to lips. As the researcher undertook these responses he would continue to inform the participant of what he was doing thus confirming his altruistic actions (e.g. "I'm going to remove the food cover now,"). Positive outcomes would therefore occur, and thus be perceived as occurring, independent of the participant's responding. This, in turn, was predicted to lead to an expectation of future non-contingency regarding the mealtime event, and later LH effects.

The procedure for LHT would commence as soon as the ward was ready to begin serving meals to patients. At this moment the researcher would:

- Enter the ward and greet the participant (this would include gaining a brief verbal consent permitting the researcher to continue with the experimental procedures).
- Enclose the experimental environment using curtains (unless a side room).
- Read the informational statement (N.B. prior to the first intervention only), (see 'instructions' section above).
- Set up the video camera (as in figure 6.1). The participant would be informed, *"The camera is recording."*
- Tell the participant that "I'm just going to collect your meal."

Upon arriving back at the participant's bedside with the meal the researcher would commence LHT as outlined below in Table 6.10.

Table 6.10 Researcher Responses Undertaken During Learned Helplessness Training

Intervention *(responses varied depending on the type of meal being served):*

Physical responses	Associated verbal responses
1/ Brings the participant's meal and places it in front of them on a table.	
2/ Picks up the napkin and places it on the participants lap.	*"Let me help you with this."*
3/ Removes the food cover on the main course.	*"I'll just remove the food cover."*
4/ Picks up the cutlery and cuts the participants food (where appropriate).	*"Just let me do this for you."*
5/ Places the cutlery in the participants hands and instructs.	*"Continue eating now."*
6/ Removes the main course plate once the participant has finished.	*"Let me get this out of your way"*
7/ Places the sweet dish in front of the participant.	*"Here, I'll move this closer for you"*
8/ Removes the food cover on the sweet dish.	*"I'll just remove the food cover."*
9/ Picks up the cutlery and cuts the participants food (where appropriate).	*"Just let me do this for you now"*
10/ Places the cutlery in the participants hands and instructs.	*"Continue eating now."*
11/ Removes the sweet dish once finished.	*"Let me get this out of your way"*
12/ Places a drink in front the participant and asks.	*"Would you like a drink?"*

Following LHT, the researcher would dismantle the video camera, thank participants for their help and remind them of his next visit.

Intervention 2 (Procedures 1 & 2)

Learned Mastery Training

LMT was conducted over two consecutive meals (breakfast and lunch), and aimed to allow participants to make as many self-initiated responses as possible during the mealtime event. Prior to collecting the meal, the researcher would alter the participant's expectation of control by simply informing them that once the meal arrived, they were in control. Thereafter the researcher would not physically intervene. This empowering intervention was predicted to lead to an expectation of control regarding the mealtime event, and associated LM effects.

LMT would commence as soon as the ward was ready to begin serving meals to patients. At this moment the researcher would:

- Enter the ward and greet the participant (this would include gaining a brief verbal consent permitting the researcher to continue with the experimental procedures).

- Enclose the experimental environment using curtains (unless a side room).

- Read the informational statement (N.B. prior to the first intervention only), (see 'instructions' section above).

- Set up the video camera (as in figure 6.1). The participant would be informed, *"The camera is recording."*

- Tell the participant that "*When I put the meal tray in front of you, you are in control ... I'm now going to collect your meal.*" This full sentence would only be spoken during the first intervention, i.e. breakfast. Thereafter, the participant would be informed *"I'm now going to collect your meal."* (NB. in Procedure 2, the full sentence was slightly different, i.e. "*From now on, when I put the meal tray in front of you, you are in control ... I'm now going to collect your meal.*")

- Having collected the meal it would be placed it in front of the participant on their bedside table. The researcher would then sit near to the participant and attend to his notes.

- During the meal, if a participant asked, "*What do you want me to do*?" or *"Do you want me to start eating?"* The researcher would respond by saying *"You're in control now."*

- *All meal related responses were conducted by the participant.*

Following LMT, the researcher would dismantle the video camera, thank participants for their help and remind them of his next visit.

Control group (procedures 1 & 2)

The control group received no interventions prior to the test trial, and would eat their breakfast and lunch time meals as normal on the ward, in the absence of the researcher.

Test trial (Procedures 1 & 2)

Specific LH and LM effects (The Meal Test):

Test trial 1 (specific effects) aimed to evaluate the responses of participants towards their supper time meal in the absence of the researcher. This test trial procedure was similar to those of the interventions. The only exceptions being that the video camera would be recording, and the researcher would leave the experimental setting for one minute immediately after placing the participant's meal in front of them. The test trial procedure would commence as soon as the ward was ready to begin serving meals to patients. At this moment the researcher would:

- Enter the ward and greet the participant (this would include gaining a brief verbal consent permitting the researcher to continue with the experimental procedures).

- Enclose the experimental environment using curtains (unless a side room).
- Read the informational statement (N.B. *control group only*), (see 'instructions' section above).
- Set up the video camera (as in figure 6.1). Switch the camera to record. Inform the participant, "*The camera is recording.*"
- Tell the participant that "*I'm just going to collect your meal*"
- Having collected the meal it would be placed it in front of the participant on their bedside table avoiding eye contact. Having done this, the researcher would immediately leave the research setting for one minute.
- After the one minute the researcher would return and say "*Sorry, I got called away for a minute.*"
- If the participant had already started eating their meal, the researcher would sit near to the participant and attend to his notes. If the participant had not started eating his meal, the researcher would say "*Please start your meal,*" then sit near to the participant and attend to his notes. (NB. no intervention was undertaken throughout the rest of the meal).

Following this test trial, the researcher would dismantle the video camera, and ask the participant if they would be happy to undertake the OAT after a short break (usually about ten minutes).

Generalised LH and LM effects (The Object Assembly Task):

The test for generalised LH and LM effects was the OAT of the WAIS-R-UK. This contained four object assembly items, each in a separate envelope, and an object assembly layout shield to hide each object as it was being set up. Here the following procedure was used for all participants (adapted from Wechsler, 1981).

1/ Mannequin.
The pieces of the 'mannequin' were arranged behind the object assembly layout shield, according to the layout shown in appendix 11. The array was then exposed to the participant and the researcher would say *"If you put these pieces together the right way, they will make something. Go ahead and put them together as quickly as you can. Tell me when you have finished."* The researcher would then start timing allowing 120 seconds. After this time had expired, the researcher would say "*OK stop now.*" Following this, the correctly assembled items would be document on the record sheet (appendix 13) and the researcher would progress to the next object.

2/ Profile
The pieces of the 'profile' were arranged behind the shield as per appendix 11. The array was then exposed and the researcher would say *"Now put these pieces together as quickly as you can."* The researcher would start timing allowing 120 seconds. Correct items were documented.

3/ Hand
The pieces of the 'hand' were arranged behind the shield as per appendix 11. The array was then exposed and the researcher would say "*Put this one together as quickly as you can.*" The researcher would start timing allowing 180 seconds. Correct items were documented.

4/ Elephant (180 seconds)
The pieces of the 'elephant' were arranged behind the shield as per appendix 11. The array was then exposed and the researcher would say "*Put this one together as quickly as you can.*" The researcher would start timing allowing 180 seconds. Correct items were documented.

Additional points.

- Timing for each item began when the last word of the instructions was spoken.
- The exact time that participants took to complete each object was recorded if it fell within the time limit. This was because bonus points could be awarded for speedy completion of an item.
- Participants were always stopped when the time limit was reached.
- If during a task, the participant turned over an item, it would be turned right side up as unobtrusively as possible.
- Data were scored according to the score sheet presented in appendixes 13 and 14 (also see the 'instruments' section for a description of scoring procedure).

At the end of the Object Assembly Task, participants who had completed the experiment were given feedback (see below), whilst participants who were moving on to Procedure 2 were reminded of the researcher's next visit.

Feedback.

As each participant completed their final test trial, the researcher provided them with feedback regarding the research, and asked them if they had any questions about it. This was particularly important for participants who had previously been in the LHT group of procedure 1 and the control group of procedure 2. These participants had not been exposed to LMT, and thus could still have LH. As such, the researcher attempted to alter their expectation of future control by telling them that they should expect to be in control over all future mealtime events now that the research was finished.

DATA ANALYSIS

Overview

Test trial data, and additional data (i.e. age, gender, MMSE) were transferred to the data editor of the Statistical Package for the Social Sciences (SPSS) computer programme (Version 7). In all, this data represented 10 variables, which are described in Table 6.11 with reference to the type of data yielded, and the range of scores possible. Once the data had been programmed into SPSS, the test trial scores for procedure 2 were calculated by subtracting the results of test trial 1 from the results of test trial 2 for all variables except the 'criterion achieved' variable. The resulting values represented the degree

of change yielded as a result of procedure 2 (i.e. (LHT)-LMT or (LHT)-Control) and were used to evaluate LH alleviation.

Control group data (Procedure 1) from all variables except 'criterion achieved' and 'gender' were then submitted to a Kolmogorov-Smirnov test. This procedure compares the cumulative distribution of a dataset with that of a theoretically normal cumulative distribution, thus allowing the researcher to *estimate* whether variable data are normally distributed within a population. The use of control group data, or data drawn from participants who had not been exposed to any intervention, were deemed to be most representative of the population as a whole, and thus the most appropriate to use within this calculation. Furthermore, the variance of the dataset was also calculated. The results of these tests, which are presented in appendix 15 (procedure 1) and appendix 16 (procedure 2), were crucial in determining whether the variable data fulfilled the various assumptions required for parametric testing.

Parametric statistics are generally preferred to non-parametric statistics because they have a greater statistical power and are more likely to detect statistically significant effects. However, the ultimate decision regarding their use relates to whether a variable's data meets the required rationale. This rationale requires that variables are 1/ normally distributed in the population; 2/ measured on at least an interval scale; and 3/ have approximately equal variances in each experimental condition (Everitt, 1996).

Table 6.11 Experimental Variable Data Transferred to the Data Editor of SPSS

Variable	Variable Type	Data Type	Minimum/ Maximum Achievable Score
1/ Age	Descriptive	Ratio	65 - x
2/ Gender	Descriptive	Nominal	1 - 2
3/ Mini Mental State Examination score	Descriptive	Interval	0 - 30
4/ Time taken to engage in instrumental responses.	Test trial: (specific effects)	Ratio	0 - 60 (secs)
5/ Instrumental responses (time engaged in)	Test trial: (specific effects)	Ratio	0 - 60 (secs)
6/ Exploratory responses (time engaged in)	Test trial: (specific effects)	Ratio	0 - 60 (secs)
7/ Passivity (time engaged in)	Test trial: (specific effects)	Ratio	0 - 60 (secs)
8/ Other responses non-meal related (time engaged in)	Test trial: (specific effects)	Ratio	0 - 60 (secs)
9/ Criterion achieved	Test trial: (specific effects)	Nominal	0 - 1 (no/yes)
10/ Object Assembly Task Score	Test trial: (generalised effects)	Interval	0 - 41

Data Analysis Procedure 1

Using the results from appendix 15 (Procedure 1) it was decided that the group differences relating to the variables of 'age', 'MMSE,' 'overall time engaged in instrumental responses,' and 'OAT' could be tested using parametric statistics. This was because the group variances of variables were approximately equivalent. Secondly the results of the Kolmogorov-Smirnov test for these variables, which was conducted on control group data, was non-significant, thus indicating that the variables were normally distributed in the population. Finally, from table 6.11 we can see that all of the above variables were measured at an interval level or above. It was therefore concluded that these variables

met the assumptions required for parametric testing. As such these variables were subjected to a one way analysis of variance (ANOVA) with post hoc Tukey test.

The variable 'time taken to initiate instrumental responses,' however, failed to meet these assumptions. For instance, although the data were at a ratio level (i.e. time), between group variances were shown to differ greatly (standard deviations = 24.18 (LHT); 17.22 (Cont); 3.54 (LMT)). Furthermore, the results of the Kolmogorov-Smirnov test, conducted on the control group data, was highly significant at $p < 0.01$, indicating that the variable was not normally distributed within the population. Therefore, this variable failed to meet the assumptions required for parametric testing, indicating that tests of group differences should be conducted using a non-parametric Kruskal-Wallis one way ANOVA with post hoc Siegel and Castellan test (Siegal & Castellan, 1988). These tests assume that the variables under study have the same underlying continuous distribution, thus requiring measurement on at least an ordinal scale (in fact the variable in question has been measured on a ratio level scale; i.e. time).

Other relevant variables which failed to meet the assumptions for parametric testing included 'patient gender' and 'criterion achieved,' both due to their use of nominal data. A non-parametric 2x3 Chi square for independent samples was therefore used. Other variables not directly related to the hypotheses or methodology, including overall time engaged in 'exploratory responses,' 'passivity' and 'other non-meal related responses,' were also evaluated with regard to conducting parametric statistics. These variables also failed to meet the required assumptions, and were therefore analysed using non-parametric statistics (Kruskal-Wallis as described above). Finally, in addition to inferential statistics, the researcher also used descriptive statistics including mean, and standard deviation. Table 6.12 shows all the variables of Procedure 1 along with the inferential statistics used for each. It should be noted that all tests of difference were two-tailed and tested hypotheses at an α of 0.05.

Table 6.12 Inferential Statistics Used Within Procedure 1

Variable	Inferential and Post Hoc Statistics	Significance Level	Parametric/ Non-parametric
Age	Two-Tailed One way Analysis of Variance (ANOVA) with Post Hoc Tukey Test.	0.05	Parametric
MMSE	Two-Tailed One Way ANOVA with Post Hoc Tukey Test.	0.05	Parametric
Gender	2x3 Chi-Square for Independent Samples	0.05	Non-Parametric
TT	Two-Tailed Kruskal-Wallis One Way ANOVA with Post Hoc Siegel-Castellan Test.	0.05	Non-Parametric
IR	Two-Tailed One Way (ANOVA) with Post Hoc Tukey Test.	0.05	Parametric
ER	Two-Tailed Kruskal-Wallis One Way ANOVA with Post Hoc Siegel-Castellan Test.	0.05	Non-Parametric
P	Two-Tailed Kruskal-Wallis One Way ANOVA with Post Hoc Siegel-Castellan Test.	0.05	Non-Parametric
OT	Two-Tailed Kruskal-Wallis One Way ANOVA with Post Hoc Siegel-Castellan Test.	0.05	Non-Parametric
CA	2x3 Chi-Square for Independent Samples	0.05	Non-Parametric
OAT	Two-Tailed One Way (ANOVA) with Post Hoc Tukey Test.	0.05	Parametric

KEY: MMSE= Mini Mental State Examination score; TT= Time taken to engage in instrumental responses; IR= Overall time engaged in instrumental responses during test trial 1; ER= Overall time engaged in exploratory responses during test trial 1; P= Overall time passive during test trial 1; OT= Overall time engaged in other responses non-meal related during test trial 1; CA= Criterion Achieved; OAT= Object Assembly Task Score.

Data Analysis Procedure 2

Variables in procedure 2 were evaluated in a similar manner to procedure 1. Subsequently the variables of 'Age,' 'MMSE,' and changes in overall time engaged in 'instrumental' and 'exploratory' responses between test trials 1 & 2, were found to meet the requirements for parametric testing thus indicating the use of an independent samples t-test. Other variables were submitted to non-parametric statistics, for example the Mann-Whitney U test for ordinal level data (or above); and the 2x2 Chi

square for independent samples for nominal level data. All tests of difference were two-tailed and tested hypotheses at an α of 0.05. Finally, descriptive statistics were also conducted including mean and standard deviation. Table 6.13 shows all the variables of procedure 2 along with the inferential statistics used for each.

Table 6.13 Inferential Statistics Used Within Procedure 2

Variable	Inferential Statistics	Significance Level	Parametric/ Non-parametric
Age	Independent samples t-test	0.05	Parametric
MMSE	Independent samples t-test	0.05	Parametric
Gender	2x2 Chi-Square for Independent Samples	0.05	Non-Parametric
TTC	Mann-Whitney U test	0.05	Non-Parametric
IRC	Independent samples t-test	0.05	Parametric
ERC	Mann-Whitney U test	0.05	Non-Parametric
PC	Independent samples t-test	0.05	Parametric
OTC	Mann-Whitney U test	0.05	Non-Parametric
CA	2x2 Chi-Square for Independent Samples	0.05	Non-Parametric
OATC	Mann-Whitney U test	0.05	Non-Parametric

KEY: MMSE= Mini Mental State Examination score; TTC= Changes in time taken to engage in instrumental responses between test trials 1&2; IRC= Changes in overall time engaged in instrumental responses between test trials 1&2; ERC= Changes in overall time engaged in exploratory responses between test trials 1&2; PC= Changes in overall time passive between test trials 1&2; OTC= Changes in overall time engaged in other responses, non-meal related, between test trials 1& 2; CA= Criterion achieved; OATC= Changes in Object Assembly Task scores between test trials 1 & 2.

CHAPTER SEVEN

EXPLORATORY PHASE

INTRODUCTION

Disempowering and empowering staff acts are considered to expose patients to circumstances conducive with the development of LH (leading to increasing dependence) and LM (leading to increasing patient independence) respectively. Therefore, by developing a means of measuring these concepts within hospital wards (i.e. through the Patient Empowerment Scale), these environments may be evaluated as to the extent to which they place patients at risk of developing LH, or alternately facilitate LM. This was accomplished using the three procedures of Buss and Craik's (1983) Act Frequency Approach (AFA). Of these, procedure 1 involved an act nomination phase whereby registered nurses were asked to nominate 'empowering' and 'disempowering' staff acts. Following from this, procedure 2 involved an act prototypicality rating phase which was conducted by older hospitalised patients. Finally, procedure 3 involved the utilisation of prototypical acts within a Patient Empowerment Scale (PES) as a means of evaluating the extent to which hospital wards were 'empowering' or 'disempowering.' This chapter will describe the method by which the AFA was operationalised including sections on study sites, sampling techniques, ethical issues, instruments, experimental procedures, and data analysis.

STUDY SITES

Sites Used

The study site used for procedure 1 was the School of Health Care at Oxford Brookes University. This site conducts a series of post registration and post graduate courses for nurses and was considered appropriate for gaining a sample of experienced post registration nurses. Participants involved in procedures 2 and 3 on the other hand, were drawn from three hospitals of an Oxfordshire NHS trust. Within these hospitals, a total of five study sites were set up, all of which were hospital wards, and four of which had been previously used during the experimental phase of the research. These sites varied with regards to speciality (including elderly care rehabilitation, n=1; medicine, n=3; and surgery, n=1); size (ranging from 16 to 26 beds); age group (ranging from 18+ years n=4, to 65+

years, n=1); and average Barthel index (Mahoney & Barthel, 1965), (ranging from 8.78 to 18.8), (NB. Ward Barthel scores were averaged from the scores of individual patients present at the time of ward profiling and were considered to be a fair representation of the general level of patient functioning by ward managers on each site). Table 7.1 presents outline profiles for each study site, whilst detailed profiles may be found in appendix 17.

Table 7.1 Exploratory Study Sites (Outline Profiles)

Hospital	Ward	Speciality	No of Beds	Gender	Age Group (in years)	Barthel Index (0-20)
1	1	Elderly Care Rehabilitation	26	Mixed	65+	8.78
2	2	Acute Medicine	16	Mixed	18+	15.75
2	3	Acute Surgery	26	Mixed	18+	18.80
2	4	Acute Medicine	20	Mixed	18+	16.05
3	5	Acute Medicine	23	Mixed	18+	12.43

Establishing Study Sites

In procedure 1, the study sites related to two post-registration courses for nursing staff held at Oxford Brookes University, School of Health Care. In establishing access to students on these courses, the researcher initially contacted the relevant course tutors to set up a meeting. As a result of these meetings the researcher was granted access to students on the course and a date, time, and place were negotiated. It was also agreed that students would be informed of the researchers visit one week in advance.

The gaining of study sites for procedures 2 and 3 followed the same operations as were previously described for the experimental phase. Indeed, four of the five sites were already established having had been earlier used during the experimental phase. On these sites, ward managers and staff were informed that the experimental phase had come to an end, and that the researcher would be progressing with the exploratory phase of the study which would involve patients completing a series of questionnaires. It is worth noting, however, that only ward managers were aware of the exact

details regarding the nature of these questionnaires. This was to ensure that nursing staff did not alter their approach to patients during the act frequency assessment of hospital staff in procedure 3.

Justification of study sites chosen

The decision to use university courses as a means of accessing trained nurses for procedure 1 was made on the basis of practical convenience, not for the researcher so much as the individual nurses. For instance, the original plan was to administer the act nomination questionnaire to nurses whilst at work. However, ward based staff often work under severe time constraints and thus would have little time for the completion of questionnaires. Subsequently, by using university courses, it was hoped that nurse participants would not feel quite so pressured with their time.

The hospital sites for procedures 2 and 3 were chosen because of their diversity, being a mixture of acute and rehabilitation wards of varying specialities, and caring for people with differing levels of functional ability. Through this diversity, the researcher hoped to be able to provide a picture of empowerment and disempowerment across a broad range of hospital settings. It would also enable the researcher to better evaluate whether the act frequency scores related to alternative data, such as that provided by the ward profiles.

SAMPLING

Sampling Criteria

Procedure 1

Nurse participants were selected from university courses on the basis of the following selection criteria:

1/ Registered general nurses for at least one year.
2/ Had experience in caring for older hospitalised patients in the last year.
3/ Currently practising in the NHS
4/ Gave informed consent to participate.

This selection criteria aimed to ensure that nurse participants had recent experience of caring for older hospitalised people, moreover, that they were willing participants in the study, having given their informed consent to participate.

Procedures 2 and 3

Patient participants were selected from ward based study sites on the basis of the following selection criteria:

1/ Older hospitalised people aged 65 or over (age determined from nursing records).
2/ Deemed well enough to participate in the research (based on the opinion of the patient's named nurse) .
3/ Non-cognitively impaired, capable of answering a series of questionnaire items (no history of organic or psychotic mental disorder in the nursing records).
4/ Gave informed consent to participate.
5/ Had been an inpatient for at least three days (procedure 3 only).

These selection criteria aimed to ensure that the study sample was relevant to older hospitalised people who were deemed competent enough to comprehend a series of questionnaire items. Ethical issues are also attended to through items 2 and 4.

Sample size

Procedure 1

In all, 38 registered nurses completed the act nomination questionnaire. This sample size was not predetermined, but instead was estimated relative to the saturation point of the act nomination questionnaire. For instance, the final seven questionnaires (out of the 38 reviewed) were found to yield only five *new* act nominations for both dispositions (i.e. empowerment and disempowerment) out of the possible seventy. This indicated that the author was close to exhausting this particular avenue of investigation, prompting the search for alternative means of accumulating act nominations (see the instruments section).

Procedure 2

The act prototypicality rating questionnaire of procedure 2 involved 20 older hospitalised people. This sample size was influenced by Buss and Craik (1983) who, with reference to prototypicality ratings, suggested that:

> *"Reliability estimates... (should)... reach sufficient levels to pursue a research program in a manageable fashion with panels of 20 or so judges."*
> (Buss & Craik, 1983, p111)

Procedure 3

The sample size for the act frequency scales of procedure 3 involved an overall sample of 102 older hospitalised people with sub-samples of between 20 to 21 participants per ward. Table 7.2 shows the breakdown of this overall sample.

Table 7.2 Sample Breakdown for Procedure 3

Ward	Speciality	No of Nurse Teams	Sample Team 1	Sample Team 2	Sample Team 3	Overall Ward Sample
1	Rehabilitation	2	10	10		20
2	Acute Medicine	2	10	10		20
3	Acute Surgery	3	7	7	7	21
4	Acute Medicine	2	10	10		20
5	Acute Medicine	3	7	7	7	21
						Total =102

The decision to use samples of between 20 to 21 participants per ward was made in anticipation of the PES being later used as a means of assessing hospital wards outside of the framework of this thesis. If the PES was to be of practical use as an auditing tool, its robustness would have to be demonstrated with relatively small patient samples. This is because ward environments generally consist of only twenty or so patients and may vary widely with regard to speed of patient turnover. Therefore, if the PES required a large sample, data collection could prove to be quite a protracted process. By maintaining the sample size at about twenty participants, however, it was also hoped that the PES could be completed over a practicable time scale.

It will be noticed on table 7.2 that the overall ward samples of 20-21 participants were broken down further into teams. This breakdown of the sample was relative to the number of nursing teams in operation on the ward. These nursing teams would operate within specific areas of the ward, therefore, in order to gain an overall picture of empowerment/disempowerment for each environment,

an equal number of participants needed to be selected from each team area. PES results from these areas would not be specifically evaluated however. This is because such information might lead to unnecessary competition between nursing teams, or the seeking out of individuals who are 'deemed' to be performing poorly. This is not the purpose of the PES.

Process of Selection

Participants involved in all procedures represented a convenience sample (the standard sampling method of the act frequency paradigm). This method may potentially cause the sample to be unrepresentative of the population as a whole thus affecting external validity, a circumstance which may be compounded by poor response rates. Response rates in this study, however, were within acceptable limits (according to Hague, 1993) at 69% (procedure 1); 72% (procedure 2); and 78% (procedure 3), thus limiting the threat to external validity.

ETHICAL ISSUES

A full research proposal was submitted to NAPREC on December 2nd 1997, and ethics approval for all study sites was gained on January 21st 1998 (as previously described in the preceding chapter). Despite approval having been granted, however, two issues arose which needed additional approval from the committee. The first related to a change from using prototypical acts to form an observational schedule, to their use within a questionnaire format. This required changes in the information letter to patients regarding the research (see letter of October 7th 1998, appendix 5g). This letter was acknowledged on October 15th 1998 (appendix 5h) and as a result of some minor amendments required to the information letter, ethics approval was granted by chair's action. The second issue related to the PES questionnaire itself which was submitted to the committee for final review on January 18th 1999 (appendix 5i), with ethics approval being granted on 25th January 1999 (appendix 5j).

Approaching Prospective Participants

Procedure 1

The researcher's initial approach in securing nurse participants from relevant university courses involved contacting the course tutor to discuss his requirements, set an appropriate date and time to visit the class, and request that the tutor inform students as to the researcher's visit in advance. The following week, the researcher visited the class, was introduced by the tutor and then outlined the nature of the study and the participant requirements (including selection criteria). Students were again made aware that participation was entirely voluntary and not a course requirement. Volunteers were then handed the questionnaire sheet.

Procedures 2 and 3

With regards to the prototypicality rating questionnaire and PES, prospective participants deemed suitable (i.e. fulfilling the selection criteria) were introduced to the researcher by the patient's nurse. During this initial meeting, the researcher would either read, or allow the patient to read, the information letter for the appropriate procedure (presented in appendix 18, Act prototypicality; and appendix 19, PES). Following this, patients were asked if they would like to participate in the study. Volunteers were given the information sheet to read and told that the researcher would return later in the day. At this second meeting, the researcher enquired whether the patient was still interested in participating. If the patient replied 'yes' again then the researcher asked the patient if they had any further questions regarding the study. Thereafter, the researcher progressed through the formal consenting procedure using the sheet presented in appendix 7. This procedure was the same as in the experimental phase (described in the experimental 'ethical issues' section).

Storage of Data

Data yielded by questionnaires from all procedures were transferred immediately onto computer and redundant papers destroyed. Computer data were stored on the main server of Oxford Brookes University, records being accessible to the researcher only by password. These records will be kept for up to five years prior to deleting them. Patient names were not recorded in the main study, and participants were only known by their subject number. As well as protecting the identity of patients,

the researcher was also careful not to disclose the identity of study sites being used. These will be known only to the researcher and his supervisor outside of the departments themselves, and documented in terms of site '1, 2, 3,' etc.

RESEARCH INSTRUMENTS

Introduction

The development of the Patient Empowerment Scale (PES) questionnaire involved the researcher conducting two *separate* Act Frequency Approaches (AFA) for the dispositions of 'empowerment' and 'disempowerment.' These approaches involved two main procedures, 1/ act nomination and 2/ prototypicality ratings, ultimately yielding two sets of prototypical acts from each disposition. The twenty most prototypical acts from each disposition were combined to form the PES. The processes involved in the development of the PES are described in detail below.

Act Nomination

Act Nomination Questionnaire

The purpose of the act nomination questionnaire was to gather one hundred nominations of acts related to the dispositions of empowerment and disempowerment from a sample of 38 registered nurses. It was felt that nurses, given their generally high level of patient contact, would be the most appropriate nominees of acts and would readily be able to draw upon experiences of working with empowering or disempowering colleagues. Acts were solicited by asking participants to respond to the following instructions:

> *"Think of the three most empowering (disempowering) nurses you know. Nurses whose interventions typically leave patients in full (with no) control over activities in their lives. With these individuals in mind, write down five specific acts or behaviours that they have performed which reflect or exemplify their empowering (disempowering) nature. Do not write synonyms or adjectives pertaining to empowerment (disempowerment). Instead your suggestions should describe the specific things that nurses do whilst in direct contact with patients. For instance, a nurse wishing to empower (disempower) a patient might 'tell them a humorous tale.' Write each act or behaviour as a simple phrase or sentence in the spaces provided overleaf."*
>
> (Act Nomination Questionnaire for Empowerment (Disempowerment))

Act nomination questionnaires for empowerment and disempowerment are presented in appendix 20.

Whilst the instructional format of the act nomination questionnaire was very similar to that outlined by Buss and Craik (1983), there were several minor changes. For instance, the opening sentence, "*Think of the three most empowering (disempowering) nurses you know,*" was embellished by the additional sentence, "*Nurses whose interventions typically leave patients in full (with no) control over activities in their lives.*" This additional sentence was influenced by Peterson (1993), whose adaptation of Buss and Craik's original instructions provided participants with additional clarification of the 'helplessness' disposition in a similar way. In the current study this additional clarification is justified as a result of 'empowerment' and 'disempowerment' being variously defined in the literature, although in nursing they are generally perceived as relating to control (see concept analysis of Gibson, 1991, and the definitions presented in the conceptual framework of this thesis).

Act Nominations from the Nursing Literature

Overall, the act nomination questionnaires yielded up to 190 acts for each disposition. However, many of these acts were repeated by several participants, and some proved to be inappropriate for the purposes of the research. As a result, further nominations were sought, and obtained by reviewing literature in the fields of empowerment and disempowerment. Here, 690 references were initially reviewed using the CINAHL Database (1993-1998/10), (search terms include *'Empowerment and Patient'* (n= 673); and *'Disempowerment'*, (n=17)). Many of these references were inappropriate, either because the subject of empowerment/ disempowerment applied to groups other than patients (i.e. staff), or because the patient group itself was inappropriate (i.e. paediatrics). Where references were relevant, nominations were gained either directly from the journal abstract, or from the original article itself. Literature nominations and their sources are presented in appendix 21c, where it will be noticed that the papers of some researchers were quite useful in suggesting nominations (i.e. Clark & Bowling, 1990; Hewson, 1995; Kitwood, 1997; Davies, Laker & Ellis, 1997). Nevertheless, many of the thirty-nine disempowering acts, and sixteen empowering acts yielded by this process merely duplicated those already presented by nurse nominees in the questionnaire.

The decision to use literature sources to supplement act nominations related to two pertinent issues. Firstly, the act nomination questionnaires for both empowerment and disempowerment failed to yield

the necessary one hundred acts required by the AFA. For instance, the final seven of the thirty-eight questionnaires reviewed by the researcher yielded only five *'new'* nominations for both dispositions out of a possible seventy. This indicated that the researcher was close to exhausting this avenue of exploration and would thus require additional nominations. Secondly, with regard to the use of literature sources rather than an expert panel, the researcher felt it necessary to acknowledge the wealth of literature already existing in the field of empowerment/disempowerment. What better way to extract 'expert' nominations, than from peer reviewed articles and research. Furthermore, by avoiding the use of an expert panel, as recommended by Buss and Craik (1983), the researcher was able to avoid the temptation of subjectively biasing nominations.

Appendix 21 presents three page sections showing act nominations from the empowerment (appendix 18a) and disempowerment (appendix 18b) questionnaires. The original acts from the questionnaires are shown in the left hand column next to the participant number. 'Edited' acts and 'opposite' acts (discussed later) are shown in the central and right hand columns respectively. Literature nominations are also presented in this appendix (18c) with all sources documented. Abridged nominations from the literature are given in the left hand column with 'opposite' acts and literature sources in the central and right hand columns respectively.

Developing opposite acts

Opposite acts were developed as a consequence of the dispositions in question (i.e. empowerment and disempowerment) being antithetical to one another. Thus if an *empowering* act nomination was:

> Abridged Nomination (Empowerment)
> "14 *Explains procedures and treatments without using complicated medical jargon"*

The researcher would see if the 'opposite' of this act could be used as a disempowering act. In this particular case it provides a good example of a disempowering act. For instance:

> Disempowering Opposite
> *"Uses complicated medical jargon whilst explaining procedures and treatments."*

However, whilst many empowering (or disempowering) nominations indicated acts for the opposing disposition, others did not. For instance:

Abridged Nomination (Disempowerment)
"13 *Calling over a colleague to confirm decisions regarding patient care, which patients themselves have disagreed with."*

This act has a possible opposite of:

Empowering Opposite (Possible).
"Refraining from calling over a colleague....."

However, clearly this is not an observable act.

This method of gaining nominations is an extension of Buss and Craiks' (1983) original procedure and was only possible because the researcher was assessing two antithetical dispositions, a situation which has not previously occurred in research of this type. Whilst the researcher, through his adoption of this methodological extension, ran the risk of 'over involvement' in the nominating process, this innovative use of nominated acts was crucial in broadening the range of nominations in the final act judgement questionnaire (presented later).

Editing Act Nominations

With regard to the editing process Buss and Craik (1983) suggested:

> *"The lists of acts generated for each disposition were subsequently reduced by eliminating redundancies, non act statements, general tendency statements, frequency statements, and statements that were considered to be too vague to constitute an observable act. Grammatical errors were corrected, and each selected act statement was phrased in a way suitable for performance by either sex"*
>
> (Buss & Craik, 1983, p109)

Although vague, this statement was used as a guide in the editing process. This process is described below with examples from both the empowering and disempowering act nomination questionnaires.

1/ Nominations which represented several acts were broken down into their component parts. For instance:

Nurse Nomination (Empowerment)
"17. *Provides information regarding who the patient will see, when they will see them, and what will happen."*

Abridged Nomination (Empowerment)
a/ "X *Provides patients with information regarding when investigations or procedures will take place."*

b/ "*Provides patients with information regarding which staff they will see during the day."*

c/ "X *Provides patients with information regarding what relevant investigations will entail."*

Rationale: This prevents 'act judgement' questions from having several meanings, thus preventing ambiguity.

(N.B. The 'X' prior to an abridged nomination (see examples above) indicated to the researcher that a nomination had already been made, thus facilitating the process of compilation).

2/ Unobservable acts were removed. For instance:

Nurse Nomination (Empowerment)
"5. *To know the patient: through admission criteria etc."*

Nurse Nomination (Disempowerment)
"23. *Not communicating about daily needs."*

Rationale: If acts are not observable patients cannot judge how frequently they occur.

3/ Nominations which pertained to a patient's specific illness or condition were removed. For instance:

Nurse Nomination (Empowerment)
"1. *Not stopping a resident sitting in the nurse's office who thought they were the manager themselves (dementia)."*

Nurse Nomination (Empowerment)
"24. *Offering to assist someone to appeal against their admission to hospital under the mental health act."*

Rationale: Ultimately, the AFA Questionnaire should be applicable to all older hospitalised patients. Therefore, acts pertaining to specific illnesses or conditions, whilst representing good examples of empowerment or disempowerment, have been excluded from the questionnaire during its development.

4/ Nominations which were too vague or non specific were removed. For instance:

Nurse Nomination (Disempowerment)
"37. *Expect patient to be submissive."*

Nurse Nomination (Disempowerment)
"38. *Task orientated."*

Rationale: Nominations which are too vague or non specific could lead 'act judgement' questions to be ambiguous.

5/ Nominations which were presented as dialogue between nurse and patient were assessed for their meaning and rewritten in such a way that this meaning was preserved. For instance:

Nurse Nomination (Disempowerment)
"27. *Let me do that for you"*

Abridged Nomination (Disempowerment)
"**X** *Over assisting a patient with an activity."*

Rationale: Acts written as dialogue do not clearly describe the act which they represent, thus potentially causing 'act judgement' questions to be ambiguous.

6/ Poorly structured nominations (i.e. overlong sentences, poor choice of words), were rewritten taking care to preserve meaning across to the abridged version. For instance:

> Nurse Nomination (Empowerment)
> "11 *Gives them there own medication packets and allows them to take the medication as they would normally do. e.g. Insulin dependent diabetic."*
>
> Abridged Nomination (Empowerment)
> "*Allows patients to administer their own medication under supervision."*
>
> Rationale: Ensures that acts are clear and unambiguous.

7/ Frequency statements were removed. For instance:

> Nurse Nomination (Empowerment)
> "15 *Always remembers to undertake a task requested by a patient.*"
>
> Abridged Nomination (Empowerment)
> "*Remembers to undertake a task requested by a patient.*"
>
> Rationale: Statements which pertain to the frequency of acts pre-empt patients from making these judgements. The ultimate purpose of the AFA.

8/ Redundant acts were removed (i.e. acts which had already been nominated):

> Rationale: Prevents patients from being asked the same question twice.

Re-writing acts from the patient's perspective

Following the initial editing stage, act nominations for each disposition were compiled within a single document prior to undergoing further revision. This further revision involved writing each act from the perspective of the patient recipient. For instance:

> Act Nomination (Disempowerment)
> "55. *Not allowing a patient enough time to complete a task."*
>
> Revised Act Nomination (From the patient's perspective)
> "*You are not allowed enough time to complete a task.*"

This process, which is a further adaptation of Buss and Craiks' original approach, was necessary because the acts were to be judged by patients. Thus by rewriting acts from the perspective of the patient (i.e. the recipient of the act), they were made more relevant.

Appendix 22 shows three page sections of acts relevant to the dispositions of empowerment (appendix 22a) and disempowerment (appendix 22b). The original 'edited' acts are shown on the left hand side of each page, whilst the central column displays the revised acts from the perspective of the patient, as mentioned above. The final column on the right displays the source of each act with 'L' standing for

'literature' and Q standing for 'questionnaire.' Overall, the 'questionnaire' and 'literature' nominations accounted for 112 empowering acts and 107 disempowering acts with literature sources being responsible for an additional twelve empowering acts, and an additional fifteen disempowering acts.

Final revision

Following the above editing procedures, acts within each disposition were then grouped by major theme areas in order to facilitate a final review of the acts. This review had two aims: 1/ to assess whether acts falling into the same thematic group were so closely linked as to warrant merger; and 2/ to identify inappropriate acts which were not identified during the first round of editing (see initial editing section).

The removal or merger of acts was strictly limited to fourteen acts for 'empowerment' and nine acts for 'disempowerment.' This limitation was a function of the researcher's requirement of 98 valid acts for each disposition (not including two 'dummy' acts which would later be placed into the act lists for each disposition making 100 acts in total). As a result of this limitation, the selection of acts requiring merger or removal was prioritised to ensure that the *most* inappropriate acts, or *most* similar act pairings, were attended to first. This process ultimately yielded 98 acts for each disposition, all of which were selected for the act prototypicality rating questionnaire. Appendix 20 shows three pages from each disposition as a means of illustrating this final revision stage (empowerment, appendix 23a; disempowerment. appendix 23b). Acts due to be removed are printed in italics on the left hand side of the page, whilst the criteria for removal is indicated on the right hand side.

Act Prototypicality Rating

The Act Prototypicality Rating Questionnaire

The purpose of the act prototypicality rating questionnaire was to secure hypothetical judgements from older hospitalised patients as to the extent each nominated act would be either empowering or disempowering. This involved placing the nominated acts from each disposition into two rating scale questionnaires, with patient participants being given the following instructions:

"In this study, you are asked to make judgements about a series of nursing acts - things that nurses might do. Please use the seven point scale provided to indicate the extent to which each action would increase (decrease) your feelings of control within the hospital environment.
Here:
"7" means that an act would ***highly*** *increase your feelings of control;*
"4" means that an act would ***moderately*** *increase your feelings of control; and*
"1" means that and act would ***not*** *increase in your feelings of control.*
Use other numbers on the 7-point scale to indicate intermediate judgements."
(Act Prototypicality Rating Questionnaire, first draft)

With Buss and Craik (1983) failing to present a clear instructional format regarding their act prototypicality rating scale, instructions were based on those presented by Peterson (1993) in his assessment of 'helpless' behaviour. One significant difference from Peterson's instructions, however, related to the descriptions of the dispositions under investigation. For instance, in Peterson's instructions participants were told: "*For each behaviour, you are asked to rate how good an example it is of each psychological state*" (Peterson, 1993, p291). Here, "*psychological state*" refers to the dispositions being assessed (i.e. 'depressed' or 'helpless'). If we take this instructional component and place it in our own questionnaire it would read: "*For each behaviour, you are asked to rate how good an example it is of empowerment (or disempowerment).*" This would be an appropriate instruction if the behaviours were being judged by nurses, however, as the behaviours were being judged by patients, it was possible that they would have little understanding about the dispositions in question. Yet clearly, the best people to judge empowering and disempowering nursing acts are the recipients of them. To overcome this problem, it was decided to ask patients to hypothetically judge the third person *effects* of the disposition relative to each act, rather than the *disposition* relative to each act. Therefore, patient judges were asked to:

Empowerment:

> *"indicate the extent to which each act would increase your feelings of control within the hospital environment"* (Act Prototypicality Rating Questionnaire, Appendix 24a)

Disempowerment:

> *"indicate the extent to which each act would decrease your feelings of control within the hospital environment"* (Act Prototypicality Rating Questionnaire, Appendix 24b)

Other noteworthy points regarding the questionnaire are as follows. Firstly, acts were judged on a seven point scale with each act being judged against the 'effects' of a single disposition (i.e. empowerment or disempowerment). This scaling procedure is the same in the original AFA of Buss

and Craik (1983). Secondly, additional information was gathered on participant's age and gender. Thirdly, although patients were free to complete the questionnaire by themselves, the researcher also produced two guides, one for each disposition, which aimed to assist patients to judge the acts. The researcher would read out each act prompting the patient to respond with a number according to the scale marked out on the guide. This was especially useful for patients who were visually impaired. Finally, Buss and Craik (1983) indicated that each act judgement questionnaire should contain 100 valid acts. As mentioned previously, the two questionnaires developed only carried ninety-eight acts. This is due to the researcher placing two 'dummy' acts at the beginning of each questionnaire to reduce 'reactivity' effects as the patient judges commenced their act evaluations. These 'dummy' acts were marked with an 'X' and were selected from the many acts edited out of the final questionnaire.

Content Validity

The act prototypicality rating questionnaire was reviewed by Dr Tim Jordan (Psychology Department, Oxford Brookes University) from the perspective of content validity. This process aimed to estimate the validity of the questionnaire based on a detailed examination of the contents of each test item. As a result of this examination, recommendations were made regarding how the questionnaire could be improved to reduce ambiguity and make it more fitting for patients. These recommendations involved instructional changes and alterations in the wording of individual items as outlined below.

Instructions were reworded to make them clearer. Specific changes included the Likert scale instruction "*where '7' means that an act would highly increase your feelings of control.*" Here, the word 'highly' was replaced with 'considerably' (questionnaire *guides* were also changed accordingly). In addition to this, two example questions were placed at the bottom of the instructions which the researcher would go through with participants to ensure that they understood procedures. These questions did not count towards the questionnaire.

Several of the items in the questionnaire contained nursing type jargon (i.e. administer; mobilise) which could create ambiguity for the patient respondents and were ultimately substituted with simpler words chosen with the aid of the "Oxford Thesaurus" (L Urdang, 1991), (i.e. administer/give;

mobilise/walk). Other complex words were not so easily substituted due to their highly specific meaning, for instance 'self-esteem' and 'empathy.' These words were therefore supplemented with bracketed 'prompts' in an attempt to make them more comprehensible. For instance: a/ *"Staff make remarks which are damaging to your self-esteem (self regard)*; b/ *Staff demonstrate empathy (understanding) when discussing your problems.*

NAPREC guidelines suggested that prose submitted to patients in questionnaire format should be set at a reading age of between 12-13 years. It was therefore necessary to test the reading age of the act prototypicality rating questionnaire, a process which utilised the Fog Index (Gunning, 1968). Here the mean reading age for the empowerment questionnaire was found to be 12.34 years, and for the disempowerment questionnaire 12.06 years, using 7x100 word sections for each questionnaire. The formula for the Fog Index is presented in appendix 25. Meanwhile, the final versions of the act protoypicality rating scale following content validity are presented in appendixes 26a (for the disposition of empowerment), and 26b (for the disposition of disempowerment), with patient guides being presented in appendixes 26c (empowerment) and 26d (disempowerment).

Pilot Study

A small pilot study n=5 was conducted using the two act prototypicality questionnaires, the aim being to evaluate whether the questionnaires were comprehensible to patients. This pilot study yielded a number of field notes as given below:

1/ Some participants had difficulties in assessing acts from the perspective of increases/decreases in control, instead they were judging acts from the perspective of whether or not they would be 'pleasurable' or 'annoying.' To account for this, the researcher attempted to ensure that participants were as clear as possible about what each act was being assessed for. This led the researcher to reiterate the instructions after each page of the questionnaire in some cases. Within the main study, however, some participants remained confused about the instructions, despite prodigious attempt to explain them, and were thus withdrawn from the study.

2/ Three participants in the pilot study were visually impaired and could not read the small print on the questionnaire. As a result, the questionnaire items were read to the participants by the researcher, and the two scale guides (appendix 26c & d) were utilised with good effect.

3/ All pilot study participants, except one, queried various acts. These queries were either along the lines of seeking more specific details about questionnaire items, or to ask *"Haven't we had that one already?"* The researcher refrained from giving further details with regards to the documented acts due to the risk of bias, and participants were asked to consider each act in 'general terms.' The participant who did not query any of the acts was found to be merely supplying the researcher with numbers related to the scale, seemingly without even thinking about the acts. This was discovered when the researcher (who was reading out each act to the poorly sited participant), asked *"Are you OK?...Do you need a break?"* to which the participant promptly replied *"five."* Needless to say that the questionnaire was abandoned shortly afterwards. As a result of this, it was decided that when the researcher suspected similar circumstances, he would purposefully repeat acts which had previously been delivered and monitor for any response. This strategy, however, was not needed with participants in the main study. NB. Responses from participants in the pilot study were included in the main study (with the exception of the participant whose questionnaire was abandoned).

Results

The act prototypicality rating questionnaires for empowerment and disempowerment were administered to a convenience sample of 20 different patients for each disposition (Empowerment: 9 females, 11 males; mean age 74.85 years; Disempowerment:10 females, 10 males, mean age 74.85 years). Following this, mean scores were calculated for all items in descending order so that the most prototypical acts for each disposition appeared first in the list, i.e. acts with the highest means. Each disposition (98 acts) was then divided into 5 'Proto' groups (20+20+20+20+18 acts). Acts with the highest means fell into 'Proto 1.' These highly prototypical acts with their accompanying mean values are listed for empowerment in appendix 27a, and for Disempowerment in appendix 27b, and are followed in each case by examples of acts falling into proto's 2 - 5.

Alpha reliabilities for both dispositions were relatively high (empowerment: α= 0.9786; disempowerment: α = 0.9828). Also note how the means in each disposition do not differ substantially between acts in Proto 1 and acts in Proto 5. For instance, acts in Proto 5 for both Empowerment and Disempowerment, which should have been the least prototypical, display scores which relate to *moderate* increases (or decreases) in control. Detailed tables of the descriptive statistics undertaken may be found in appendix 28a (empowerment) and 28b (disempowerment).

Act Frequency Assessment

The Patient Empowerment Scale Questionnaire

The purpose of the PES was to measure the frequency of each prototypical empowering and disempowering act by asking patient participants to judge how often they had personally encountered them over a predetermined period. The questionnaire was developed as a composite measure incorporating the act frequency assessment tools for both empowering and disempowering dispositions. Acts within this questionnaire were those falling into 'Proto 1' of each disposition, which were randomly placed into the PES using a randomisation chart produced by Randomiser v5 Xls; Excel Version 7 (see appendix 29) with empowering acts occurring first among the forty items.

The questionnaire had the following instructions:

> *"In this study, you are asked to make judgements about a series of staff actions - things that hospital staff do. Please use the three point scale provided to indicate how often you have encountered each action during the last three days of your stay on this ward.*
> *Here:*
> *'0' means that you have **never** encountered a particular act.*
> *'1' means that you have **sometimes** encountered a particular act, and*
> *'2' means that you have **often** encountered a particular act."*
>
> (Patient Empowerment Scale, Draft 1)

The three point scale of 'never,' 'sometimes' and 'often' mentioned above is a simplified version of a scale recommended by Buss and Craik (1983). This scale was chosen because older patients could have had difficulties in estimating the absolute frequencies of acts they had encountered, especially if these acts had occurred frequently during their hospital stay. The drawback of using this scaling, however, was that the overall scores yielded by the PES were likely to project a rather impressionistic view of empowerment. The scoring of this scale was as follows 'never' = 0; 'sometime' = 1; and 'often' =2.

Also indicated by the instructions above is the use of a predetermined time frame (i.e. 'the last three days') for the judgement of acts. This was important because the probability of patients encountering acts was likely to be commensurate with the length of the judgement period, (i.e. the longer the judgement period, the higher the number of acts recorded). Therefore, the use of a fixed time frame ensured equivalence across the sample with regard to this factor. However, setting the fixed time frame was problematic in so much as the researcher had no information to draw upon regarding the probable frequency of questionnaire acts over time. This raised the question 'how long should a fixed time frame be?' For instance, if an insufficient time period was used, the PES may not register any acts at all. It was therefore decided to set the time frame at three days, and to monitor the occurrence of empowering and disempowering acts during the piloting of the PES. From this, the time frame could be adjusted if very few acts were indicated. The setting of this three day time frame related to the length of stay of many of the patients on the surgical study site. This site had the highest estimated rate of patient turnover, with many patients attending for minor operations requiring only a short period of recuperation.

As mentioned previously, the PES is a composite questionnaire, consisting of the act frequency questionnaires of empowerment and disempowerment. The reason for this is because both of these dispositions are relevant to the estimation of environmental empowerment. For instance, a ward may contain a number of highly empowering hospital staff whose interactions with patients would be duly measured by the act frequency assessment for *empowerment* yielding a relatively high score. However, what if a ward also contained a contingent of highly *disempowering* staff, whose interactions with patients effectively diminished the benefits gained by patients as a consequence of having been empowered? Without the act frequency assessment for disempowerment, these acts would go unnoticed, and the score for empowerment would remain high. To counter this, the PES assesses empowerment and disempowerment, each assessment contributing 20 acts to the overall questionnaire. If we adopt the above scenario now, it is possible to take the actions of both empowering and disempowering staff into account when determining the overall level of empowerment within an environment. In the present study, this involved rewarding wards (adding

points) commensurate with the frequency of empowering acts, and penalising wards (subtracting points) commensurate with the frequency of disempowering acts. Therefore the disempowerment score was subtracted from the empowerment score, these scales being equivalent in so much as they both represented the twenty most prototypical empowering and disempowering acts of hospital staff .

Using this measurement criteria and given the three point scale indicated previously i.e. 0-2, the total score for the empowerment sub-scale (20 acts) will be anything between 0 to +40, and for the disempowerment sub-scale (20 acts) anything between 0 to -40. After subtracting the disempowerment score from the empowerment score, this would yield a total PES of between -40 to +40 with positive scores representing empowering environments and negative scores representing disempowering environments.

Content Validity:

The AFA questionnaire was reviewed by Dr Tim Jordan (Psychology Dept, Oxford Brookes University), and Dr Jenny Butler (NAPREC) from the perspective of content validity. This process aimed to estimate the validity of the questionnaire based on a detailed examination of the contents of each item, as well as generally reviewing the process of measurement and scoring. Recommendations and subsequent changes included the following.

Firstly, readability of the questionnaire had already been evaluated using the Fog Index of readability. However, despite the readability of the PES being estimated at 12.06 years (using 4 x 100 word sections), it was felt that a number of changes could be incorporated to reduce this reading age even further. Here, the Oxford Thesaurus was used in order to substitute a number of three or more syllable words with simpler equivalents (i.e. relocated/moved). These changes were followed by the researcher conducting a second readability assessment this time yielding a reading age of 10.73 years (using the same 4 x 100 word sections) a decrease of 1.33 years.

Secondly, one of the drawbacks of asking patients to judge the actions of hospital staff is that they might intentionally create a positive image of an environment due to a fear that any negative

responses made would be divulged to individual staff members, thus leading to some kind of retaliatory response. It was suggested that such a validity threat might be reduced by stressing the confidential nature of the questionnaire prior to its commencement. As such the questionnaire instructions contained the following statement:

> *"It is very important that you answer the questions overleaf as honestly as possible based on your actual experiences on this ward. All information gathered is confidential and will therefore not affect your care in any way."* (Patient Empowerment Scale, appendix 30a)

Thirdly, it was thought that patients may be reluctant to respond 'never' to some of the empowering acts on the PES simply because this response would be perceived as giving a falsely negative impression. To illustrate, a patients responding *"never"* to the empowering act "*staff resolve your complaints*," simply because they had never made a complaint, might be concerned that this response would indicate that the ward staff 'never' resolved complaints, a harsh judgement indeed. Of course this is not the point, the individual would merely be indicating whether or not an act had occurred. Nevertheless, it was decided that the measurement of 'never' should be accompanied by 'not applicable' for all items (see the PES questionnaire in appendix 30a). This would enable patients to answer items honestly, but without appearing to be disparaging to the ward, a manoeuvre which, it was thought, could aid the validity of the questionnaire as a whole. It is important to note, however, that irrespective of whether a participant chose to respond by circling 'never' or 'not applicable' in response to an item, the ultimate scoring of the item would remain zero, indicating that the act had not taken place.

Finally, other changes regarding the PES included 1/ following the questionnaire instructions with two practice items; 2/ converting the numeric three point scale (0-2) to a worded scale of 'never,' 'sometimes' or 'often;' and 3/ increasing the font size of the questionnaire to 14 point (Microsoft Word). These changes were all made as a means of increasing the clarity and comprehensibility of the questionnaire as a whole.

Pilot study:

A short pilot study using the PES was conducted with patients from elderly rehabilitation (site 1, n=6) and acute medicine (site 2, n=5). The aim of this study was firstly to assess whether patients understood the instructions and questionnaire items, and secondly to assess whether the fixed assessment period of 3 days was sufficient to enable questionnaire items to be recorded. Field notes are presented below:

1/ Several patients pointed out that items relating to food i.e. *"Food or drink is removed from your table before you have finished"* did not relate specifically to nurses as it was often the domestic who would deal with the administration of food. As a result, references made to "*Nursing Actions*" at the top of the item column were changed to "*Actions*."

2/ Items in the original PES were in the form of statements rather than questions leading some participants to be somewhat unsure how to respond. Thus if a participant required the researcher to read the items, their presentation, especially towards the start of the questionnaire, was often followed by a silence. It was therefore felt that by changing the items from statements to questions, participants would be prompted to respond. This strategy was quite successful when adopted towards the end of the pilot study.

3/ Regarding the scores from the PES in response to the time frame of three days (i.e. the period used by patients upon which they based their act frequency judgements), the mean pilot study scores are as follows (see table 7.3).

Table 7.3 Mean Pilot Study PES Scores

Site	Sample n = x	Mean Empowerment Score (0 to +40)	Mean Disempowerment Score (0 to -40)	Mean overall PES Score (-40 to +40)
1	6	+ 24.0	- 10.8	+ 13.2
2	5	+ 23.2	- 4.2	+ 19.0
Mean Totals		+ 23.6	- 7.8	+ 15.8

These mean values indicated that despite the relatively short time period of retrospective judgement, empowering and disempowering acts *were* being recorded. For example, the mean total for empowerment (i.e. +23.6) represents over half of the mean *achievable* score for this category (i.e. +40), whilst the mean total for disempowerment (i.e. -7.8) represents just below a quarter of the mean achievable score (i.e. -40). Moreover, 97.5% of all acts on the PES were recorded as having occurred by at least one of the eleven participants in the study. It will also be noticed that the mean PES scores for both environments fail to achieve the top score of +40 by over twenty points, thus indicating the absence of ceiling effects. In conclusion, the time frame of 3 days was deemed appropriate for the main exploratory study.

4/ Finally, as the items of the PES did not require revision (other than posing them as questions rather than statements), the results from this pilot study were incorporated into the main exploratory study. (NB. The PES questionnaire, following all revisions, is presented in appendix 30a along with the randomisation guide (i.e. outlines the item numbers relevant to empowering or disempowering acts, appendix 30b), and the patient guide for partially sighted participants (appendix 30c)).

Validity and reliability

The validity of the PES was achieved through two processes, consensual validity and content validity. The first of these processes relates to the aim of achieving twenty prototypical acts for the dispositions of empowerment and disempowerment. Consensual validation involved gaining the opinions of older hospitalised people as to the dispositional prototypicality of previously nominated acts. Because this process involved the opinions of twenty raters, the resulting acts used as items in the PES (i.e. those with the highest prototypicality ratings), may be considered to be consensually valid exemplars of empowerment and disempowerment.

The second form of validity relates to the issue of ensuring that participants judging the various questionnaire items throughout the AFA process did so having fully comprehended each item. This issue is relevant to the validity of the study in so much as the sample used for the act prototypicality ratings and PES was made up of older hospitalised people, who could potentially yield invalid

responses should they fail to comprehend questionnaire items. Here, content validity procedures involved experienced researchers overseeing the instructions and items of the above mentioned scales and where necessary recommending changes relevant to their comprehensibility. Other procedures relevant to this aim included evaluations of questionnaire readability, the use of a selection criteria which excluded incognizant participants, and the piloting of questionnaires to evaluate their field performance.

Alpha reliability coefficients for the PES were conducted for the composite scales of empowerment and disempowerment for each study site. These ranged from 0.75 to 0.87 for the empowerment sub-scale and 0.65 to 0.88 for the disempowerment sub-scale (see table 7.4). It is generally agreed that the lower limit for this statistic in exploratory research is 0.60 (Robinson, Shaver & Wrightsman, 1991; Hair, Anderson, Tatham & Black, 1998) thus these findings indicate that the reliability of the sub-components of the PES are within acceptable limits.

Table 7.4 Alpha Reliability Coefficients for the PES Composite Measures of Empowerment and Disempowerment

Site	Environment	Sample n=x	Empowerment α reliability	Disempowerment α reliability
1	Elderly Rehabilitation	20	0.81	0.82
2	Acute Medicine	20	0.87	0.65
3	Surgery	21	0.79	0.65
4	Acute Medicine	20	0.75	0.73
5	Acute Medicine	21	0.81	0.88

PROCEDURE

Act Nomination Questionnaire

After the researcher had gained access to nursing students for 'act nomination,' a date was agreed to attend a course session. Upon attendance, the researcher provided prospective participants with information regarding the nature of the study (including selection criteria) and what would be required of participants. Students were also informed that their participation would be on an entirely voluntary basis. Nurses fulfilling the selection criteria and willing to participate were then supplied with the two act nomination questionnaires (for empowerment and disempowerment). Having administered these questionnaires the researcher remained present in the classroom to answer any queries.

Act Prototypicality Ratings

Data collection within the ward based study sites commenced by asking the nursing staff to nominate patients who fulfilled the selection criteria. Having secured a list of appropriate patients, a relevant member of staff (named nurse or team nurse) was asked to introduce the researcher to them. Upon being introduced to patients, the researcher followed ethical procedures as previously described and, if informed consent was given, would commence data collection.

Prior to the administration of the questionnaire, the researcher ensured that the instructions were understood and that participants had answered the two practice questions appropriately. The Act Prototypicality questionnaires themselves were quite extensive, incorporating one hundred items per questionnaire. Participants were only required to complete one of these questionnaires, the completion of both being deemed too demanding. Each participant was asked whether they would prefer to complete the questionnaire by themselves, or have it read to them by the researcher. Most participants requested that the questionnaire was read out in which case participants were provided with the questionnaire guide (appendix 26c&d) to facilitate their responses. During the administration of the questionnaire items, the researcher recapped the instructions (i.e. "use the scale to indicate the extent to which each action would increase (decrease) your feelings of control") before commencing every page (eighteen acts approximately) as a means of ensuring that the judgements of the participants

were valid to the disposition in question. The researcher also offered participants a short break half way through the questionnaire (item 50) as a means of preventing participant fatigue.

Patient Empowerment Scale Questionnaire

Data collection for the PES used the same study sites as were used for the act prototypicality ratings. However, unlike the act prototypicality ratings, data collection was restricted to afternoon sessions only. This was because the PES asked patients to judge act frequency on the basis of their experience over a predetermined time frame (i.e. the last three days), therefore by restricting data collection to afternoons only, the 'beginning point' and 'end point' of this time frame would be at approximately the same time of the day for all participants, thus ensuring sample equivalence.

Upon arrival on a ward, the researcher asked nurses to suggest patients who fulfilled the selection criteria and marked down their location. The location of patients was relevant to the PES because equivalent numbers of participants were drawn from each nursing teams' operational area (see 'sampling' section). Having identified prospective participants within these locations, the researcher then asked relevant nursing staff (i.e. named nurse, or team nurse) to introduce the researcher. Upon being introduced to patients, the researcher followed ethical procedures as previously described and, if informed consent was given, would commence data collection.

Prior to the administration of the questionnaire, the researcher ensured that the instructions were understood and that participants had answered the two practice questions appropriately. Participants were also told of the importance of answering the questions as honestly as possible and based on their actual experiences on the ward. Moreover that the information gained through the use of the questionnaire would be confidential and would not affect their care in any way. During this discussion, some participants were concerned that their answers would get staff into trouble. To reassure participants, the researcher suggested that the study was being undertaken on the ward as a whole, and that no individual would be able to be identified should the participant's responses be unfavourable. Furthermore, that the findings of the questionnaire, if answered honestly, would yield vital information which would help the ward to improve its service provision. It is worth noting here,

that whilst participants were aware that the researcher was not a member of ward staff, they were also aware that his presence there had been approved. This information may also have been relevant to the issue of participant honesty whilst completing the PES. For instance, if a member of ward staff were conducting the questionnaire, patients may have felt more pressure to create a favourable image for the ward as a result of not wanting to appear ungrateful.

As with the Act prototypicality rating scale, participants were asked whether or not they wished to complete the questionnaire by themselves, or have it read to them by the researcher. Most participants opted to have it read to them, and were therefore given the questionnaire guide (appendix 30c) to facilitate their responses. Furthermore, when items were read to participants, the researcher attempted to ensure that his intonation was almost monotonous so as to avoid influencing the responses of participants. Once a response had been made, the researcher would not discuss it, but merely move to the next item (this was not always easy as it was the habit of some participants to back up their responses with detailed verbal examples for every item). The researcher remained with all participants during the completion of the questionnaire, even those who completed it without the researcher's assistance.

DATA ANALYSIS

Overview

Data from the PES were transferred onto the data editor of SPSS. This process involved ensuring that items relevant to the two composite measures of empowerment and disempowerment had been correctly extracted from the questionnaire and grouped accordingly using the item guide presented in appendix 30b. Once the data had been correctly transferred, overall scores for the composite measures were calculated for each participant. From these scores the PES could be calculated by subtracting disempowerment scores from empowerment scores, again for each participant. These scores were also entered onto the data editor of SPSS yielding a total of three variables (not including the forty separate questionnaire items). These variables are described below in table 7.5 with reference to the types of data produced, and the range of achievable scores.

Table 7.5 Exploratory Variable Data Transferred to the Data Editor of SPSS

Variable	Variable Type	Data Type	Minimum/ Maximum Achievable Score
1/ Age	Descriptive	Ratio	65 - x
2/ Gender	Descriptive	Nominal	1 - 2
3/ Patient Empowerment Scale Score	Questionnaire Composite Score	Interval	-40 - +40

Data for all variables by research site (except gender) were then submitted to a Kolmogorov-Smirnov test as a means of estimating whether the dataset was normally distributed within the population. Variance was also calculated for these variables using a standard deviation. The findings from this data, which are presented in appendix 31, would be crucial in determining whether these variables fulfilled the various assumptions required for parametric testing. These include assumptions that 1/ variables are normally distributed in the population; 2/ measured on at least an interval scale; and 3/ have approximately equal variances.

Descriptive Statistics

Means and standard deviations for the PES, including the composite scales of empowerment and disempowerment, were calculated for all ward sites, and for the sample as a whole. Following this, the means and standard deviations of individual items from the empowerment and disempowerment scales were calculated again for all ward sites and for the sample as a whole. Finally, the relationships between variables were explored using a series of statistical correlations. These correlations, and the relevant statistics used to calculate them, are presented below in table 7.6.

The use of parametric or non-parametric tests for correlational analysis relied upon whether the data met the assumptions for parametric testing. Table 7.5 shows all the variables used within the correlational analysis to be measured on at least an interval scale. Moreover, the Kolmogorov-Smirnov tests undertaken on the variable data per individual site (appendix 31) indicated that the data

were normally distributed within the population. The final assumption, that of equal variances between

Table 7.6 Correlational Statistics Used in the Assessment of Exploratory Phase Variables

Correlation	Sites Used	Sample Size n=x	Statistic	Significance level (2 tailed)	Parametric/ Non-parametric
Age/ PES total	1	20	Pearson	0.05	Parametric
	2	20	Pearson	0.05	Parametric
	3	21	Pearson	0.05	Parametric
	4	20	Pearson	0.05	Parametric
	5	21	Pearson	0.05	Parametric
	All	102	Pearson	0.05	Parametric
Site Barthel/ Site PES	All	5	Spearman	0.05	Non-Parametric

different experimental conditions (i.e. data relevant to the two conditions of all potential bivariate correlations) was evaluated using a series of standard deviations. From this evaluation it was decided that the vast majority of paired datasets were of equal variance, and thus were appropriate for parametric testing (i.e. Pearson Product Moment Correlation).

There was an exception to the use of parametric testing however. For instance, a non-parametric statistic was conduced for the correlation between site 'Barthel' and 'PES' scores (NB. data used in these correlations related to *overall site* scores rather than *individual participant* scores). This is because this correlation would utilise only five scores per variable, thus making any assessment of variance prone to extreme bias. The inability to confirm the variances of these datasets ultimately led to the decision to submit them to non-parametric statistics. Finally, it is worth noting that all statistics adopted a significance level of 0.05 and were two-tailed.

Inferential statistics

Inferential statistics were conducted to evaluate differences between sites with regards to the PES and descriptive data including participant age and gender. The statistics used were determined dependent upon whether the data fulfilled the necessary requirements for parametric testing (as mentioned previously). Evaluation of these requirements was conducted by examining the type of data yielded

by each variable (table 7.5), and the results of the various Kolmogorov-Smirnov, and standard deviation tests reported in appendix 31. From this examination, the following inferential tests were conducted on the data (see table 7.7). All statistics adopted a significance level of 0.05 and were two-tailed.

Table 7.7 Inferential Statistics Used in the Assessment of Exploratory Phase Variables

Test	Number of Sites	Sample (n = x)	Statistic	Significance Level	Parametric/ Non-parametric
Age (between site differences)	5	102	Two-tailed One-Way ANOVA with post hoc Tukey Test	0.05	Parametric
Gender (between site differences)	5	102	2x5 Chi- Square for Independent Samples	0.05	Non- Parametric
PES (between site differences)	5	102	Two-tailed One-Way ANOVA with post hoc Tukey Test	0.05	Parametric

KEY: ANOVA= Analysis of Variance; PES = Patient Empowerment Scale;

Factor Analysis

As a means of assessing whether the were any common factors underlying the constituent sub-scales of the PES (i.e. empowerment and disempowerment), a factor analysis was conducted on these variables. The requirements for such a test include the following: firstly, a sample size which is at least five times the number of variables submitted for analysis; and secondly, a sample which is relatively homogenous (West, 1991). Both of these requirements were fulfilled by the dataset proposed, with the sample size being just over the requirements for each sub-component of the PES (sample requirements for factor analysis 5 x 20 (items) =100; number of participants submitted for analysis n = 102). Within the factor analysis, a principle components method was used. This method is normally used for the analysis of continuous data, and was considered appropriate for the exploration of the two component sub-scales of the PES (i.e. empowerment and disempowerment). Here, components were extracted with an Eigenvalue ≥1.00, and examined against sub-scale items using a component matrix with Varimax rotation. The Varimax rotation maximises the within factor

variance of the squared loadings thus simplifying the interpretation of the factors. As such, the researcher was able to extract sub-scale items which were relevant to each component, and which would later be submitted to interpretative analysis.

CHAPTER EIGHT

RESULTS

INTRODUCTION

This chapter will present the results from both the experimental and exploratory phases of this study.

The experimental section will present descriptive and inferential statistics relevant to the onset (procedure 1) and alleviation (procedure 2) of LH in older hospitalised people. Secondly, from the perspective of the exploratory phase, descriptive, inferential, and correlational findings will be presented from the utilisation of the Patient Empowerment Scale (PES) within five hospital ward environments. Finally, the results of a factor analyses carried out on the empowerment and disempowerment sub-components of the PES will be reported.

EXPERIMENTAL PHASE FINDINGS

Retrospective Manipulation Checks (Procedure 1)

The variables of age, MMSE, and gender were identified earlier as having the potential to confound the results of procedure one should they be unequally distributed between experimental conditions (i.e. groups). Despite this threat, it was hoped that the random allocation of participants to groups would lead to these variables being equally distributed. To evaluate this distribution, the researcher decided to conduct the following retrospective analysis.

Age:

The mean age for the overall sample (n=84) was 78.60 years (SD. 7.17). This was distributed between experimental groups as follows: LHT (n=27), 77.26 years (SD. 7.60); Control (n=35), 78.94 years (SD. 6.50); and LMT (n=22), 79.68 years (SD. 7.71). Inferential analysis of age differences between groups using a two tailed one-way ANOVA was non-significant.

MMSE:

The mean MMSE for the overall sample (n=84) was 25.71 (SD. 2.31). This was distributed between experimental groups as follows: LHT (n=27), 25.89 (SD. 2.29); Control (n=35), 25.80 (SD. 2.49); and LMT (n=22), 25.36 (SD. 2.08). Inferential analysis of MMSE differences between groups using a two tailed one-way ANOVA was non-significant.

Gender:

The gender ratio for the overall sample (n=84) was males = 47 and females = 37. Gender was distributed between experimental groups as follows: LHT (n=27), males = 13, females = 14; Control (n=35), males = 24, females = 11; and LMT (n=22), males = 10, females = 12. Inferential analysis of gender ratio differences between groups using a 2x3 Chi square statistic was non significant.

As a result of the above analyses, it was concluded that the experimental groups were equivalent with regards to the variables of age, MMSE, and gender.

Main Analysis (Procedure 1)

The following section will present findings from test trial 1 relevant to the main variables of interest. These are 1/ 'time taken to engage in instrumental responses;' 2/ 'overall time engaged in instrumental responses;' and 3/ 'achievement of criterion (patient puts food to lips during the test trial);' for specific LH and LM effects and 4/ 'Object Assembly Task scores' for generalised LH and LM effects.

Descriptive data for these variables are presented in tables 8.1 and 8.2. Table 8.1 presents descriptive data from variables 1, 2, and 4 including mean and standard error of mean. Table 8.2 presents the nominal data from variable 3 in cross-tabulation format.

Table 8.1 Descriptive Data from Procedure 1 for 'Time Taken to Engage in Instrumental Responses,' 'Overall Instrumental Responses,' and 'Object Assembly Task Scores.'

Variable/ Group		Sample	Mean	SEM
1/ Time taken to engage in instrumental responses (test trial 1).	-LHT	27	27.93	4.65
	-Control	35	10.49	2.91
	-LMT	22	3.14	0.75
2/ Overall time engaged in instrumental responses (test trial 1).	-LHT	27	16.63	3.06
	-Control	35	32.86	3.49
	-LMT	22	47.27	3.26
3/ Object Assembly Task scores (test trial 1).	-LHT	27	9.07	1.19
	-Control	35	14.83	1.25
	-LMT	22	16.18	1.41

Table 8.2 Descriptive Data from Procedure 1 for 'Criterion Achieved' in Cross Tabulation Format

Criterion Achieved (participant puts food to lips during test trial).		Experimental Group			Total
		LHT	Control	LMT	
Count	NO	23	20	5	48
	YES	4	15	17	36
	Total	27	35	22	84

Tests of difference between group means were conducted using a two tailed one way ANOVA with post hoc Tukey test for the variables of 'overall time engaged in instrumental responses,' and 'Object Assembly Task scores,' with hypotheses being tested at a significance level of α=0.05. Other tests of difference were conducted using a two tailed Kruskal-Wallis one way ANOVA with post hoc Siegel-Castellan and a 2x3 Chi square for the variables of 'time taken to engage in instrumental responses' and 'criterion achieved' respectively. Once again, hypotheses were tested at a significance level of α=0.05. Results from these tests are reported in tables 8.3 to 8.6.

Table 8.3 One Way Kruskal-Wallis ANOVA with Siegel-Castellan Post Hoc Tests for 'Time Taken to Engage in Instrumental Responses' (Procedure 1).

Kruskal-Wallis ANOVA (between groups)

Variable	Chi Square	df	Asymptotic Sig (p<x)
Time Taken to engage in instrumental responses	22.164	2	0.01

Siegel-Castellan Post Hoc

Variable	Group A	Group B	Mean Rank A Minus Mean Rank B	Critical Value	Significance p<x
Time taken to engage in instrumental responses.	LHT	Control	21.31	14.96	0.05
	LHT	LMT	31.43	16.77	0.05
	Control	LMT	10.12	15.89	NS

Table 8.4 One Way ANOVA with Post Hoc Tukey Tests for 'Overall Time Engaged in Instrumental Responses' (Procedure 1).

One Way ANOVA (between groups)

Variable	F	Significance (p<x)
Overall time engaged in instrumental responses	17.918	0.01

Tukey Test

Research Group A	Research Groups B	Mean Difference A-B	Standard Error	Significance (p<x)
LHT	Control	-16.2275	4.590	0.01
	LMT	-30.6431	5.147	0.01
Control	LHT	16.2275	4.590	0.01
	LMT	-14.4156	4.876	0.05
LMT	LHT	30.6431	5.147	0.01
	Control	14.4156	4.876	0.05

Table 8.5 One Way ANOVA with Post Hoc Tukey Tests for 'Object Assembly Task' (Procedure 1).

One Way ANOVA (between groups)

Variable	F	Significance (p<x)
Object Assembly Task	8.020	0.01

Tukey Test

Research Group A	Research Groups B	Mean Difference A-B	Standard Error	Significance (p<x)
LHT	Control	-5.7545	1.747	0.01
	LMT	-7.1077	1.959	0.01
Control	LHT	5.7545	1.747	0.01
	LMT	-1.3532	1.856	NS
LMT	LHT	7.1077	1.959	0.01
	Control	1.3532	1.856	NS

Table 8.6 2x3 Chi Square for 'Criterion Achieved' (Procedure 1).

Variable	Chi Square Value	df	Asymptotic Significance (p<x)
Criterion Achieved	19.310	2	0.01

Data from table 8.3 show significant differences between groups for the variable 'time taken to initiate instrumental responses' during test trial 1 (χ^2 =22.164, df 2, p<0.01). Moreover, comparisons between the three experimental groups using a post hoc Siegel-Castellan test, yielded several pair-wise differences. From the perspective of LH, group differences were found between LHT and control groups (p<0.05), and LHT and LMT groups (p<0.05). This finding is in line with LH theory, and demonstrates the hypothesis that older hospitalised people previously exposed to LHT during mealtimes (intervention #1), take significantly longer to initiate instrumental responses in a meal related test task. Differences between LMT and control groups on this variable, however, were found to be non significant. As such, the hypothesis that older hospitalised people previously exposed to LMT (intervention #2) during mealtimes, initiate instrumental responses significantly more quickly in a meal related test task, must be rejected.

With regard to the variable of 'overall time engaged in instrumental responses,' the one way ANOVA of table 8.4 shows that the experimental groups are significantly different (F=17.918, df 2, p<0.01). Pair-wise differences between groups were evaluated using a post hoc Tukey test, with all group comparisons being found to be significantly different. From the perspective of LH for instance, results from the LHT group were significantly different from the no treatment control and LMT groups at a probability of p<0.01 for both comparisons. The hypothesis that older hospitalised people previously exposed to LHT during mealtimes demonstrate significantly retarded instrumental responding in a meal related test task is therefore supported. Results from the LMT group were significantly different from the control and LHT groups at a probability of p<0.05 and p<0.01 respectively. Subsequently, the hypothesis that older hospitalised people previously exposed to LMT demonstrate a significantly augmented level of instrumental responding in a meal related test task, is accepted.

The result from the 2x3 Chi Square for the variable of 'criterion achieved' (see table 8.6) shows that the experimental groups differed significantly with regard to whether food was eaten during the one minute test trial (χ^2=19.310, df 2, p<0.01). However, it is difficult to ascertain where group differences lie using this statistic. To compensate for this, group percentages of participants achieving criterion were calculated from the cross-tabulated data of table 8.2 yielding the following results: LHT, 14.81%; Control, 42.86%; and LMT, 77.27%. These percentages show retarded performance following LHT, and augmented performance following LMT, findings which are in line with LH theory as well as many of the results presented above.

So far we have only considered results relating to specific LH and LM effects. However, the OAT variable relates to generalised LH and LM effects, or effects which are relevant to tasks other than the one in which LH or LM was induced. These findings are presented in table 8.5 where the one way ANOVA shows significant differences between groups on this variable (F=8.020, df 2, p<0.01). Pair-wise comparisons between groups were evaluated using a post hoc Tukey test, and show significant differences between LHT-Control (p<0.01), and LHT and LMT (p<0.01) groupings. As a result, the hypothesis that older hospitalised people who have been previously exposed to LHT during mealtimes will demonstrate a retarded performance on an alternative psychomotor task is supported, thus demonstrating generalised LH effects. From the perspective of LM, however, no significant difference was found between LMT and control groups. Consequently the hypothesis that older hospitalised people who have previously been exposed to LMT during mealtimes will demonstrate enhanced performance on a psychomotor task has been rejected.

As well as testing the main variables of interest presented above, a number of other variables of interest were tested. These were 'overall time engaged in exploratory responses;' 'overall time passive;' and 'overall time engaged in non-meal related responses,' all of which are associated with the meal related test task. Using a Kruskal-Wallis ANOVA with Siegel-Castellan post hoc test, no significant differences between groups were found for 'overall time engaged in exploratory responses,' or 'overall time engaged in non-meal related responses.' However, the variable of 'overall time passive' showed strong significant differences between groups (χ^2=34.218; df 2, p<0.01). Moreover, upon further analysis

using the Siegel-Castellan post hoc test, these differences were found to occur between all group pairings (LHT-Control; LHT-LMT; and Control-LMT) with a probability of $p<0.05$.

Retrospective Manipulation Checks (Procedure 2)

Procedure 2 involved participants from the LHT group of procedure 1 who were randomly allocated to either a LMT or Control group. As a result of this secondary randomisation process, the potentially confounding variables of 'age,' 'MMSE,' and 'gender' were once again a threat to the efficient control of the study should they be unequally distributed between groups. Subsequently, the distribution of these variables was evaluated in the following retrospective analyses.

Age:

The mean age for the overall sample (n=35) was 78.17 years (SD. 7.28). This was distributed between the two experimental groups as follows: LMT (n=18), 79.17 years (SD. 6.68); and Control (n=17), 77.12 years (SD. 7.93). Analysis of the age differences between groups using an independent samples t-test was non significant.

MMSE:

The mean MMSE for the overall sample (n=35) was 25.71 (SD. 2.26). This was distributed between experimental groups as follows: LMT (n=18), 25.17 (SD. 2.09); and Control (n=17), 26.29 (SD. 2.34). Analysis of MMSE differences between groups using an independent samples t-test was non significant.

Gender:

The gender ratio for the overall sample (n=35) was males = 17, females = 18. Gender was distributed between experimental groups as follows: LMT (n=18), males = 9, females = 9; and control (n=17), males = 8, females = 9. Analysis of gender ratio differences between groups using a 2x2 Chi square statistic was also not significant.

The above findings indicated that the experimental groups of procedure 2 were of an equivalent age, MMSE, and gender type.

As well as evaluating group differences regarding age, MMSE, and gender, the researcher also evaluated the differences between groups with regards to the observational variables of test trial 1. This

was undertaken because the test trials for both procedures were conducted over a finite period of time (one minute), with participant performance in procedure 2 being measured as a function of the difference between scores in test trials one and two. Therefore, if the experimental groups differed greatly on scores for observational items in procedure 1, then participants within these groups would also differ with regard to the extent to which their performance could improve, or worsen in procedure 2. For example, if we take the hypothetical example of two groups with overall instrumental response means of 15 seconds (group 1), and 45 seconds (group 2) on test trial 1, we find that participants in group 1 have the potential to increase their overall instrumental response times by an average of 45 seconds, whilst participants in group 2 may only improve their response times by an average of 15 seconds. It was therefore considered important to retrospectively evaluate the equivalence between the procedure 2 groups on this matter from the perspective of experimental control.

Group differences relating to test trial 1 are shown in table 8.7 for 'time taken to initiate instrumental responses,' and 'overall time engaged in instrumental responses.' Group differences were evaluated using a Mann-Whitney test for the first variable, and an independent samples t-test for the second variable. Both of these tests of difference were found to be non-significant and it was therefore concluded that the groups were equivalent in terms of these variables prior to procedure 2.

Table 8.7 Descriptive Data Showing Procedure 2 Group Differences for the Variables 'Time Taken to Engage in Instrumental Responses,' and 'Overall Instrumental Responses' Following Test Trial 1.

Variable	Group	Sample	Mean	SEM
1/ Time taken to engage in instrumental responses (test trial 1)	LMT Control	17 18	25.41 30.00	5.63 5.71
2/ Overall time engaged in instrumental responses (test trial 1).	LMT Control	17 18	18.00 17.06	4.09 4.08

Main Analysis (Procedure 2)

The following section will present findings from test trial 2 relevant to the main variables of interest. These are 1/ time taken to engage in instrumental responses; 2/ overall time engaged in instrumental responses; 3/ achievement of criterion (patient puts food to lips during the test trial), (specific LH alleviation effects); and 4/ Object Assembly Task scores (generalised LH alleviation effects). Descriptive data from these variables are presented in tables 8.8 and 8.9. Table 8.8 presents data from variables 1, 2, and 4 including mean and standard error of mean (SEM). Table 8.9 presents the nominal data from variable 3 in cross-tabulation.

Table 8.8 Descriptive Data from Procedure 2 for 'Time Taken to Engage in Instrumental Responses,' 'Overall Instrumental Responses,' and 'OAT Scores' (Test Trial Differences).

Variable/ Group	Sample	Mean	SEM
1/ Time taken to engage in instrumental responses (mean difference test trials 1 & 2). -Control -LMT	 17 18	 -6.53 -28.67	 4.31 5.38
2/ Overall time engaged in instrumental responses (mean difference test trials 1 & 2). -Control -LMT	 17 18	 2.41 37.17	 4.59 3.95
3/ Object Assembly Task scores (mean difference test trials 1 & 2). -Control -LMT	 17 18	 0.82 3.44	 0.67 0.57

Table 8.9 Descriptive Data from Procedure 2 for 'Criterion Achieved' in Cross Tabulation Format.

Criterion Achieved (participant puts food to lips during test trial).		Experimental Group		Total
		Control	LMT	
Count	NO	12	4	16
	YES	5	14	19
	Total	17	18	35

Tests of difference between group means were conducted using a Mann-Whitney test for the variables of 'time taken to initiate instrumental responses (test trial differences),' and 'Object Assembly Task scores (test trial differences),' with hypotheses being tested at a significance level of α=0.05. Other tests of difference were conducted using an independent samples t-test, and a 2x2 Chi square for the variables of 'overall time engaged in instrumental responses (test trial differences)' and 'criterion achieved' respectively. Once again, hypotheses were tested at a significant level of α=0.05. Results from these tests are reported in tables 8.10 to 8.13.

Table 8.10 Mann-Whitney Test for the Variable of 'Time Taken to Initiate Instrumental Responding' (Test Trial Differences).

Variable	Group	Sample n=x	Mean Rank	Sum of Ranks
Time taken to initiate instrumental responding (test trial differences).	LHT-Control	17	23.59	401.00
	LHT-LMT	18	12.72	229.00
	Total	35		

Mann-Whitney U	Asymptotic Significance p<x
58.000	0.01

Table 8.11 Independent Samples t-test for the Variable of 'Overall Time Engaged in Instrumental Responses' (Test Trial Differences).

Variable	Sample n=x	df	Mean Difference	t	Significance p<x
Overall time engaged in instrumental responses (test trial differences)	-5.761	33	-34.7549	-5.761	0.01

Table 8.12 2x3 Chi Square for the Variable 'Criterion Achieved' (Test Trial 2).

Variable	Chi Square Value	df	Asymptotic Significance (p<x)
Criterion Achieved (test trial 2)	8.241	1	0.01

Table 8.13 Mann-Whitney Test for the Variable of 'Object Assembly Task' (Test Trial Differences).

Variable	Group	Sample n=x	Mean Rank	Sum of Ranks
Time taken to initiate instrumental responding (test trial differences).	LHT-Control	17	13.35	227.00
	LHT-LMT	18	22.39	403.00
	Total	35		

Mann-Whitney U	Asymptotic Significance p<x
74.000	0.01

Data from tables 8.10 to 8.12 show significant differences between the LMT and control groups of procedure 2 with regards to the observational variables of 'time taken to initiate instrumental responses (test trial differences),' (U=58.000, df 1, p<0.01, table 8.10); 'overall time engaged in instrumental responses (test trial differences),' (t= -5.761, df 1, p<0.01, table 8.11); and 'criterion achieved,' (χ^2=8.241, df 1, p<0.01, table 8.12). These results are consistent with LM theory. They also support the hypotheses that older hospitalised people (previously exposed to LHT during mealtimes) who are later given an increased expectation of control regarding this event: 1/ initiate instrumental responses more quickly; 2/ spend significantly more time engaged in instrumental meal related responding; and 3/ succeed in reaching criterion (i.e. putting food to lips) significantly more during a contingent test meal. These results would therefore suggest that LH, induced during procedure 1, was alleviated in the 'specific' domain through participants being exposed to LM training.

In addition to evaluating the alleviation of 'specific' LH effects, the alleviation of 'generalised' LH effects were also evaluated through the Object Assembly Task. The results from this test are reported in table 8.13, and show a significant difference between LMT and control groups (U=74.000, df 1, p<0.01). This result is also consistent with LM theory and demonstrates the hypothesis that older hospitalised people, previously exposed to LHT during mealtimes, who are later given an increased expectation of control regarding this event, will score significantly higher on a psychomotor task

(OAT). This finding would therefore suggest that LH induced in procedure 1, was alleviated in the 'general' domain through participants being exposed to LM training.

As well as the testing of the main variables presented above, the following variables were also assessed. These were 1/ 'overall time engaged in exploratory responses;' 2/ 'overall time passive;' and 3/ 'overall time engaged in non-meal related responses,' all of which were associated with the mealtime event. These additional variables were evaluated using a Mann-Whitney test for variables 1 and 3, and an independent samples t-test for variable 2. Only the variable of 'overall time passive' showed a strong significant difference between the LMT and control groups ($t=4.004$, df 1, $p<0.01$).

EXPLORATORY PHASE FINDINGS

Descriptive Data for Age and Gender

No attempt was made to control or manipulate the study sites during the exploratory phase. Subsequently, the author recognised that these sites were likely to differ with regards to the descriptive variables of age and gender. Consequently, it was felt necessary to evaluate where these differences lay. The presentation of descriptive data are therefore accompanied by a retrospective analysis of group differences with regards to age and gender. Descriptive data are presented in tables 8.14 and 8.15.

Table 8.14 Descriptive Data for 'Age' in Procedure 2

Site/ Ward	Sample	Mean	SEM
1 (Rehabilitation)	20	82.20	1.42
2 (Medical)	20	74.75	1.75
3 (Surgical)	21	74.43	1.65
4 (Medical)	20	77.10	1.63
5 (Medical)	21	74.90	1.83
Overall	102	76.64	

Differences between groups were evaluated using a one way ANOVA, with further analysis on pair-wise groupings being conducted using a post hoc Tukey test. The ANOVA showed significant differences between groups ($F=3.807$, df 4, $p<0.01$) with pair-wise differences being found between sites 1-2 (rehabilitation-medicine), ($p<0.05$); 1-3 (rehabilitation-medicine), ($p<0.05$); and 1-5 (rehabilitation-medicine), ($p<0.05$).

Table 8.15 Descriptive Data for 'Gender' in Procedure 2

Site/ Ward	Sample	Male	Female
1 (Rehabilitation)	20	6	14
2 (Medical)	20	12	8
3 (Surgical)	21	19	2
4 (Medical)	20	10	10
5 (Medical)	21	10	11
Overall	102	57	45

Group differences for the variable of gender were evaluated using a 2x5 Chi square statistic for independent samples. This indicated significant group differences (χ= 16.628, df 4, $p<0.01$). Unfortunately, pair-wise comparisons could not be conducted on this statistic, although the surgical ward of site three shows a large individual difference with regard to gender (males= 19; females=2). This difference was caused by the surgical ward in question admitting a very low proportion of female patients.

Descriptive Data and Inferential Tests Related to the PES

The following section will present descriptive and inferential findings regarding the utilisation of the PES within the five study sites used. These findings are presented in table 8.16 and include mean and standard error of mean for each site, as well as for the total sample. Further to this, mean scores relating to the individual items of the PES (empowerment and disempowerment sub-scales) are presented in figures 8.1 to 8.4 for site 1 (elderly care rehabilitation) and site 3 (surgery), (representing the lowest and highest scoring sites respectively).

Table 8.16 Descriptive Data from the Utilisation of the PES Within Study Sites 1-5.

Variable/ Site	Sample	Mean	SEM
1/ Overall PES scores.			
1 (Rehab)	20	15.70	1.87
2 (Medical)	20	23.85	2.23
3 (Surgical)	21	31.62	1.43
4 (Medical)	20	26.55	1.88
5 (Medical)	21	25.67	2.32
Overall	102	24.75	1.01

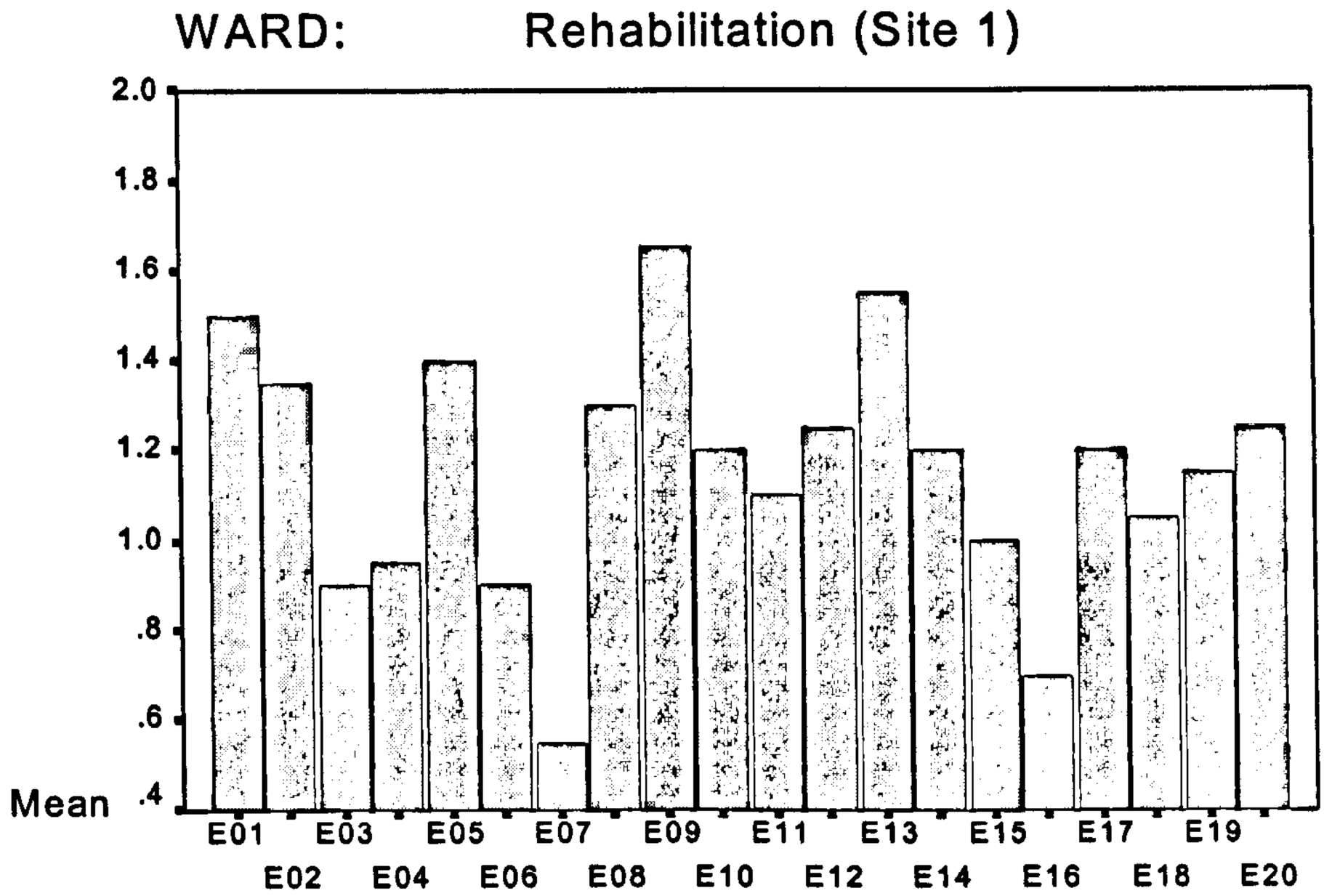


Figure 8.1 Mean Empowering Act Frequency Scores Per Item for Site 1 (Rehabilitation).

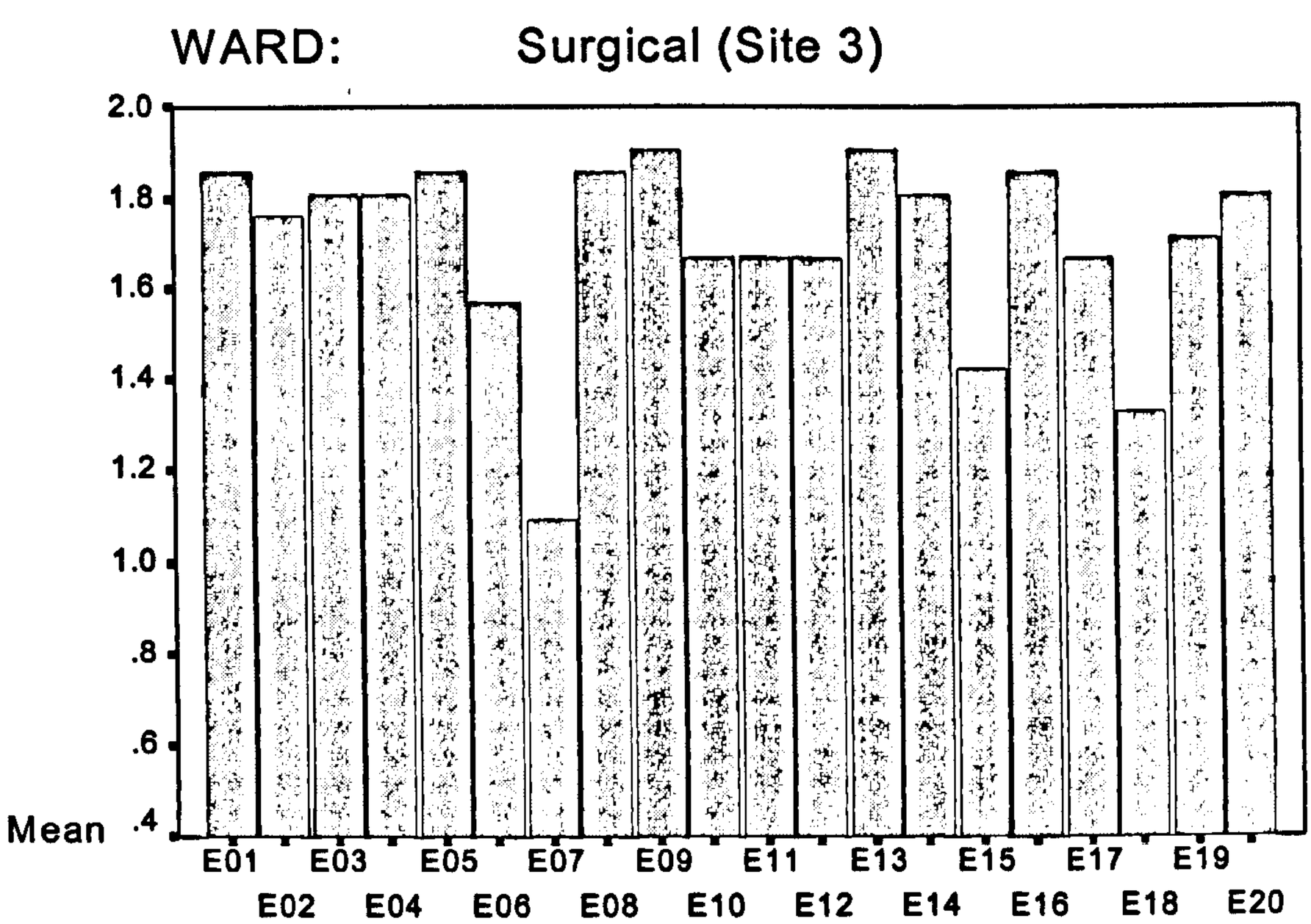


Figure 8.2 Mean Empowering Act Frequency Scores Per Item for Site 3 (Surgery).

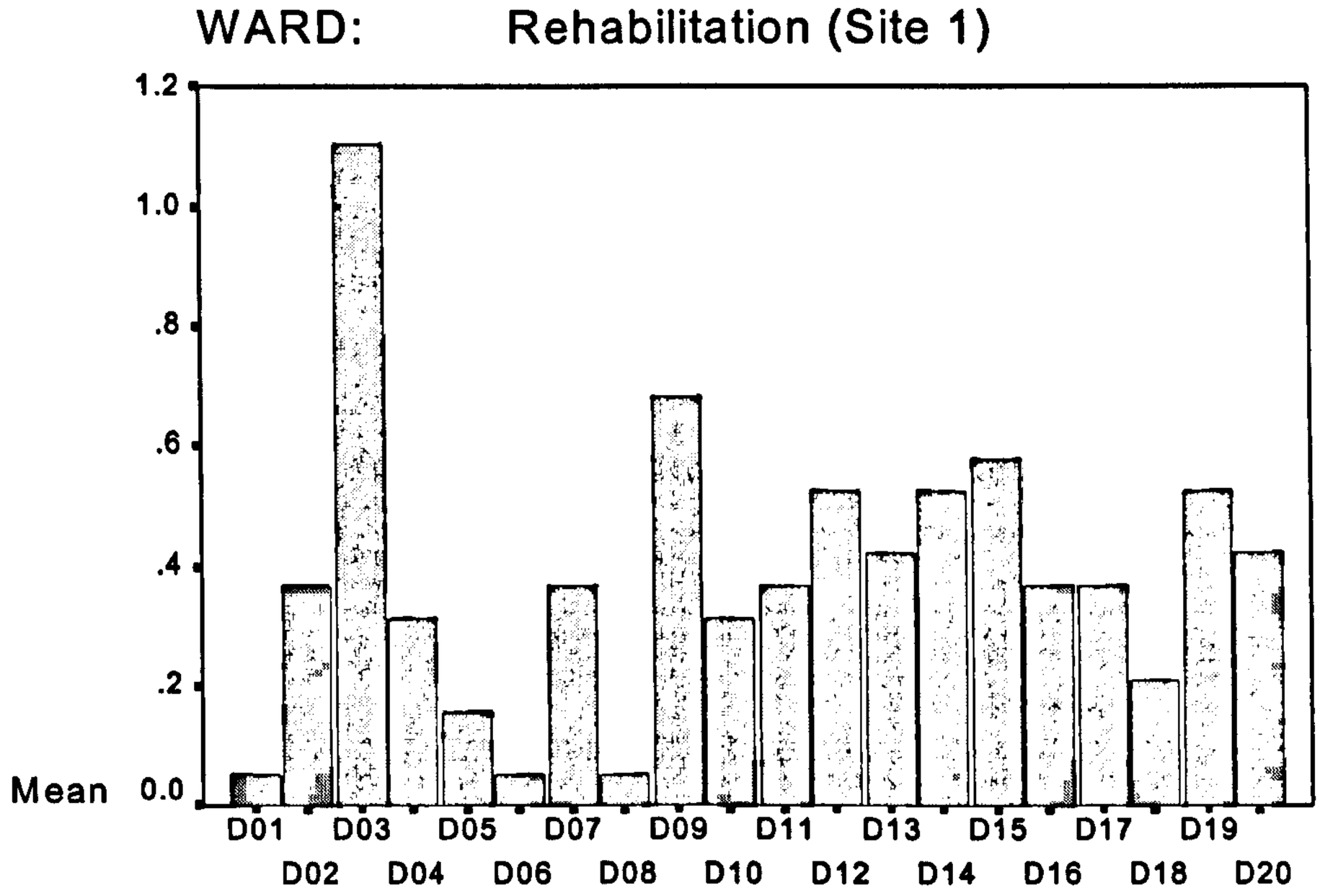


Figure 8.3 Mean Disempowering Act Frequency Scores Per Item for Site 1 (Rehabilitation).

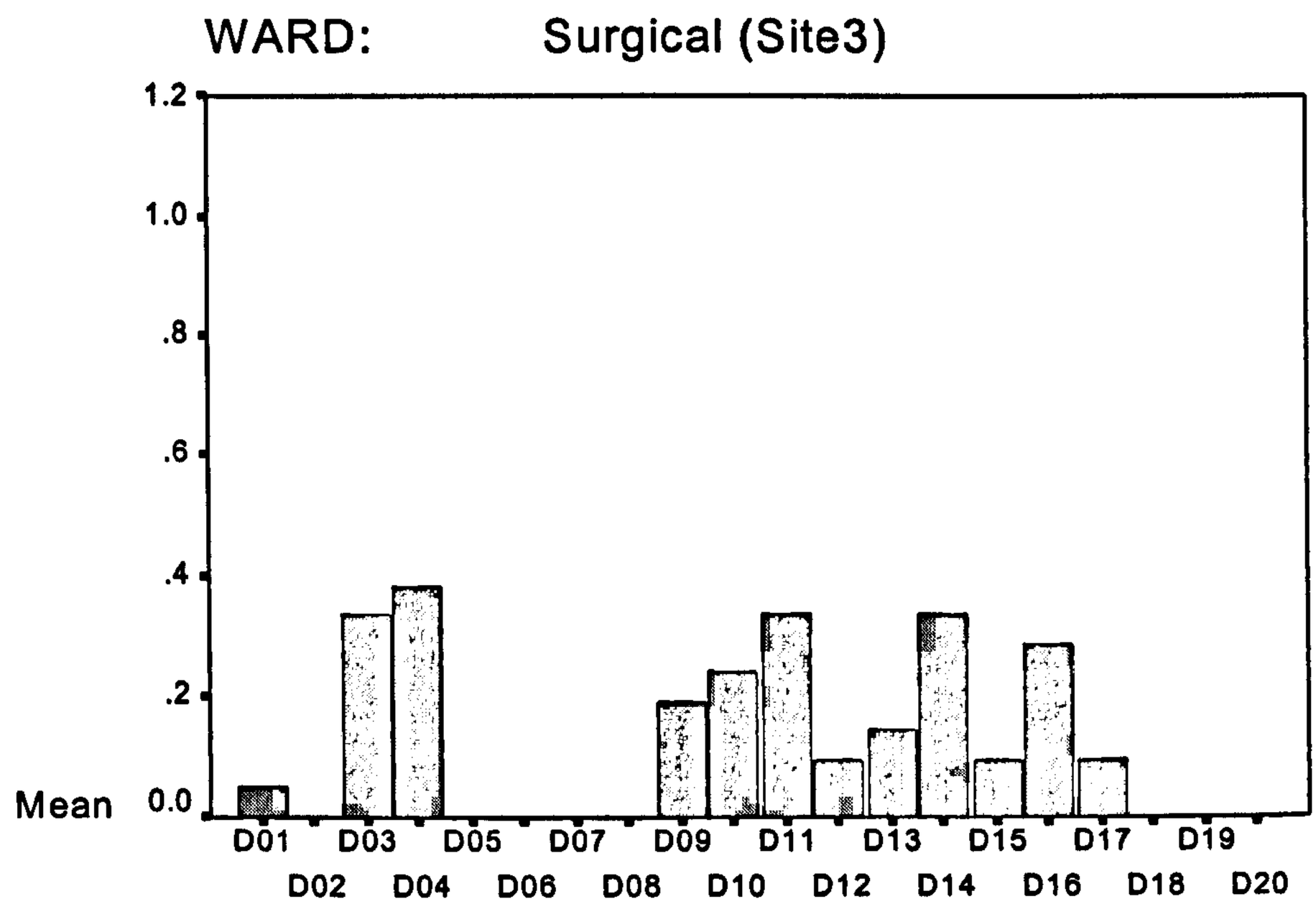


Figure 8.4 Mean Disempowering Act Frequency Scores Per Item for Site 3 (Surgery).

Tests of difference between group PES means were conducted using a one-way ANOVA and post-hoc Tukey test. Results from these tests indicate that there were significant differences between the groups ($F=8.593$, df 4, $p<0.01$), (see table 8.17). Here, a pair-wise comparison showed that site 1 (rehabilitation) had significantly lower PES scores than any other site ($p<0.01$ - $p<0.05$), whilst site 2 (medicine) was found to have lower scores that site 3 (surgery).

Table 8.17 One Way ANOVA with Post Hoc Tukey Tests for 'PES Scores.'

One Way ANOVA (between groups)

Variable	F	Significance (p<x)
PES	8.593	0.01

Tukey Test

Site Group A	Site Groups B	Mean Difference A-B	Standard Error	Significance (p<x)
1	2	-8.1500	2.817	0.05
	3	-15.9190	2.783	0.01
	4	-10.8500	2.817	0.01
	5	-9.9667	2.783	0.01
2	1	8.1500	2.817	0.05
	3	-7.7690	2.783	0.05
	4	-2.7000	2.817	NS
	5	-1.8167	2.783	NS
3	1	15.9190	2.783	0.01
	2	7.7690	2.783	0.05
	4	5.0690	2.783	NS
	5	5.9524	2.749	NS
4	1	10.8500	2.817	0.01
	2	2.7000	2.817	NS
	3	-5.0690	2.783	NS
	5	0.8833	2.783	NS
5	1	9.9667	2.783	0.01
	2	1.8167	2.783	NS
	3	-5.9524	2.749	NS
	4	-0.8833	2.783	NS

Correlational findings

As a means of exploring the PES data further, a series of bivariate correlations were undertaken. These correlations evaluated the relationship between the PES and the variables of age and Barthel Index (Barthel Index reported in table 6.1). The findings from these correlations can be found in tables 8.18 and 8.19 respectively.

Table 8.18 Bivariate Correlations Between 'PES Scores' and 'Participant Age'

Correlation/ Site used	Sample	Coefficient Type	Coefficient (r)	Significance (p<x)
Age/PES total				
1	20	Pearson	-0.702	0.01
2	20	Pearson	-0.188	NS
3	21	Pearson	0.066	NS
4	20	Pearson	0.487	0.05
5	21	Pearson	-0.137	NS
All	102	Pearson	-0.235	0.05

Table 8.19 Bivariate Correlations Between Site 'PES Scores' and Site 'Barthel Index Scores.'

Correlation/ Site used	Sample	Coefficient Type	Coefficient	Significance (p<x)
Site PES/ Site Barthel	5	Spearman	0.900	0.05

Correlations between participant age and PES totals were significant for study site 1 (rehabilitation, r= -0.70, df 19, p<0.01); site 4 (medicine, df 19, r=0.49, p<0.05); and for the overall sample (r= -0.24, df 101, p<0.05). The correlation between 'mean site PES scores' and 'mean site Barthel Index scores' also showed a high degree of relationship (r= 0.90, df 4, p<0.05).

Factor Analysis (Empowerment)

The Empowerment sub-scale of the PES was submitted to a principle components factor analysis, with components being extracted with an Eigenvalue of ≥1.00. This yielded six components which were examined against 'Empowerment (sub-scale)' items using a component matrix with Varimax rotation (see table 8.20). Here, sub-scale items relevant to each component were drawn on the basis that they achieved a correlation of $r \geq 0.3$ (i.e. ≥ 9% of the total variance) in accordance with the recommendations of Child, (1970) and Bryman and Cramer (1997). Items achieving this criteria are displayed in Table 8.21 for each component, and will be submitted to interpretative analysis in the following chapter.

Table 8.20 Rotated Component Matrix for the PES Sub-scale of Empowerment.

Items	Components					
	1	2	3	4	5	6
E01	**0.681**	5.082E-02	-0.186	3.930E-02	0.197	-3.725E-02
E02	7.345E-02	0.219	**0.720**	9.265E-02	-8.004E-03	5.744E-02
E03	0.151	3.698E-02	7.281E-03	2.458E-02	**0.824**	0.185
E04	**0.598**	0.141	**0.422**	0.177	-6.160E-02	9.257E-03
E05	0.140	6.983E-03	**0.722**	0.259	0.230	-4.835E-02
E06	2.315E-02	**0.483**	0.151	0.249	**0.398**	-0.277
E07	0.214	2.481E-02	0.216	**0.363**	0.109	**-0.677**
E08	0.118	**0.357**	**0.379**	-3.009E-03	**0.419**	-0.146
E09	1.400E-02	**0.571**	**0.443**	-0.129	-0.125	-8.916E-02
E10	**0.544**	7.174E-02	**0.369**	3.707E-02	-5.772E-02	0.224
E11	**0.700**	7.325E-02	0.159	3.033E-03	**0.312**	-0.141
E12	**0.506**	**0.468**	**0.333**	-0.296	-3.322E-03	7.723E-02
E13	0.121	5.945E-02	0.125	0.178	0.172	**0.701**
E14	**0.385**	0.236	**0.338**	0.209	**0.343**	**0.372**
E15	1.749E-02	0.216	**0.291**	**0.753**	4.896E-02	2.705E-02
E16	**0.434**	**0.355**	-0.148	**0.452**	0.179	-0.109
E17	**0.543**	0.247	0.141	**0.437**	-0.224	0.224
E18	0.120	**0.689**	-0.114	0.112	4.320E-02	0.203
E19	0.279	**0.591**	0.190	**0.315**	0.166	-1.465E-02
E20	7.594E-02	**0.659**	0.204	0.184	9.649E-02	3.042E-02

Bolded figures indicate component items with a correlation ≥ 0.3.

Table 8.21 Empowerment (sub-scale) Components Yielded Through Factor Analysis.

Component	Item No	Item Empowerment	Loadings
1	11	Do staff make sure you are able to perform activities by yourself?	0.700
	01	Do staff make sure your nurse call bell is within reach?	0.681
	04	Do staff provide you with relevant information about your illness?	0.598
	10	Do staff listen to what you have to say without interrupting?	0.544
	17	Do staff allow you time to answer questions?	0.543
	12	Do staff check to make sure that the information given to you has been understood?	0.506
	16	Do staff familiarise you with your surroundings?	0.434
	14	Do staff show understanding when discussing your problems?	0.385
2	18	Do staff seek your permission prior to conducting a nursing task?	0.689
	20	Do staff make sure that you are clear about your choices?	0.659
	19	Do staff explain their action throughout nursing tasks?	0.591
	09	Do staff respect your choices?	0.571
	06	Do staff treat you quickly after you have complained of pain?	0.483
	12	Do staff check to make sure that information given to you has been understood?	0.468
	08	Do staff make themselves available after realising you need help?	0.357
	16	Do staff familiarise you with your surroundings?	0.355
3	05	Do staff answer the questions you have about you care clearly?	0.722
	02	Do staff give you encouraging remarks for achieving specific health goals?	0.720
	04	Do staff provide you with relevant information about your illness?	0.422
	09	Do staff respect your choices?	0.443
	08	Do staff make themselves available after realising you need help?	0.379
	10	Do staff listen to what you have to say without interrupting?	0.369
	14	Do staff show understanding when discussing your problems?	0.338
	12	Do staff make sure that information given to you has been understood?	0.333
	15	Do staff provide you with information about your future care options?	0.291
4	15	Do staff provide you with information about your future care options?	0.753
	16	Do staff familiarise you with your surroundings?	0.452
	17	Do staff allow you time to answer questions?	0.437
	07	Do staff resolve your complaints?	0.363
	19	Do staff explain their actions throughout nursing tasks?	0.315
5	03	Do staff work quietly at night to help you get to sleep?	0.824
	08	Do staff make themselves available after realising you need help?	0.419
	06	Do staff treat you quickly after you have complained of pain?	0.398
	14	Do staff show understanding when discussing your problems?	0.343
	11	Do staff make sure that you are able to perform activities by yourself?	0.312
6	13	Do staff allow you time to finish food and drink before it is cleared away?	0.701
	14	Do staff show understanding when discussing you problems?	0.372
	07	Do staff resolve your complaints?	-0.677

Factor Analysis (Disempowerment)

The Disempowerment sub-scale of the PES was submitted to a similar principle components factor analysis, with components being extracted with an Eigenvalue of ≥1.00. This yielded seven components which were examined against 'Disempowerment (sub-scale)' items using a component matrix with Varimax rotation (see table 8.22). Here, sub-scale items relevant to each component were drawn on the basis that they achieved a correlation of r ≥ 0.3 (i.e. ≥ 9% of the total variance). Items achieving this criteria are displayed in Table 8.23 for each component, and will be submitted to interpretative analysis in the following chapter.

Table 8.22 Rotated Component Matrix for the PES Sub-scale of Disempowerment.

Items	Components						
	1	2	3	4	5	6	7
D01	0.193	3.491E-02	-5.389E-02	**0.847**	0.225	8.078E-02	-4.808E-02
D02	**0.565**	0.203	0.146	5.021E-02	-5.489E-02	**0.300**	-7.454E-03
D03	0.190	**0.597**	0.236	5.757E-02	**-0.430**	0.106	0.136
D04	-3.257E-02	-2.655E-02	-1.905E-02	0.146	**0.841**	-9.835E-03	-7.303E-03
D05	-2.757E-02	-2.739E-02	**0.778**	-2.359E-02	0.168	0.143	-4.613E-04
D06	**0.784**	2.505E-02	-5.531E-02	5.915E-02	-5.430E-02	-0.162	-1.200E-04
D07	0.105	0.191	0.162	**0.818**	-0.152	0.173	0.164
D08	**0.585**	0.189	5.322E-02	3.971E-02	0.250	-0.118	**0.391**
D09	9.326E-02	**0.805**	7.862E-02	0.204	0.108	1.129E-02	0.143
D10	9.643E-02	0.188	8.265E-02	6.677E-02	0.127	0.131	**0.844**
D11	**0.442**	**0.538**	-0.134	1.941E-03	-3.671E-02	0.167	0.133
D12	0.128	**0.425**	**0.549**	2.148E-02	0.186	-0.132	0.169
D13	0.258	0.187	**0.602**	0.222	-0.163	**-0.350**	-0.123
D14	0.184	-5.384E-03	**0.643**	4.353E-02	-5.635E-02	**0.427**	0.165
D15	0.209	**0.585**	6.228E-02	-1.282E-02	0.187	0.275	**-0.476**
D16	4.498E-02	0.109	0.225	-8.077E-02	**0.657**	0.117	0.170
D17	5.668E-02	0.170	4.613E-02	0.180	8.379E-02	**0.782**	4.257E-02
D18	**0.651**	5.713E-02	0.270	0.137	5.045E-02	0.248	**0.377**
D19	**0.680**	0.240	0.103	0.128	-1.278E-02	5.855E-02	-0.129
D20	**0.573**	-4.866E-03	0.264	0.230	-4.457E-02	**0.470**	3.519E-02

Bolded figures indicate component items with a correlation ≥ 0.3.

Table 8.23 Disempowerment (sub-scale) Components Yielded Through Factor Analysis.

Component	Item No	Item Disempowerment	Loadings
1	06	Do staff remove food or drink from your table before you have finished?	0.784
	19	Do staff use dominant postures when talking to you?	0.680
	18	Do staff make remarks which lower your self-esteem (self regard)?	0.651
	08	Do staff invade your privacy whilst you are performing a personal activity?	0.585
	20	Do staff talk down to you as though you were a child?	0.573
	02	Do staff dismiss your complaints?	0.565
	11	Do staff disclose private information in an area where it may be overheard by other patients?	0.442
2	09	Do staff busy themselves with other tasks when they realise you need help?	0.805
	03	Are staff noisy at night preventing you from sleeping?	0.597
	15	Do staff respond slowly to your complains of being in pain?	0.585
	11	Do staff disclose private information in an area where it may be overheard by other patients?	0.538
	12	Do staff ask you to do things which you can't do because of your illness or disability?	0.425
3	05	Do staff order you to take part in activities against your wishes?	0.778
	14	Do staff give information at a rate too fast to understand?	0.643
	13	Do staff prevent you from making decisions about your planned care?	0.602
	12	Do staff ask you to do things which you can't do because of your illness or disability?	0.549
4	01	Do staff move your bed and locker to different parts of the ward against your wishes?	0.847
	07	Do staff insist that you eat or drink when you don't want to?	0.818
5	04	Do staff attend to you without asking your permission?	0.841
	16	Do staff dispense treatments without telling you what they entail?	0.657
	03	Are staff noisy at night stopping you from sleeping?	0.430
6	17	Do staff fail to assist you with tasks you cannot do?	0.782
	20	Do staff talk down to you as though you were a child?	0.470
	14	Do staff give information at a rate too fast for you to understand?	0.427
	02	Do staff dismiss your complaints?	0.300
	13	Do staff prevent you from making decisions about your planned care?	-0.350
7	10	Do staff conduct nursing tasks without explaining their actions?	0.844
	08	Do staff invade your privacy whilst you are performing a personal activity?	0.391
	18	Do staff make remarks which lower your self-esteem (self regard)?	0.377
	15	Do staff respond slowly to your complains of being in pain?	-0.476

CHAPTER NINE

DISCUSSION: EXPERIMENTAL PHASE

INTRODUCTION

The experimental phase was split into two parts, procedure 1 and procedure 2. The purpose of procedure 1 was twofold. Firstly, to evaluate whether older hospitalised people demonstrate a LH induced dependence as a result of an exposure to positive non-contingency (LHT), and secondly, to evaluate whether they demonstrate LM induced independence as a result of being given an increased expectation of contingency (LMT). The purpose of procedure 2, on the other hand, was to evaluate the utility of LMT as a means of alleviating LH induced dependence in older hospitalised people. This chapter will discuss the results of these procedures in terms of their relevance to LH and LM theories, as well as their application to health care. It will also consider study limitations relevant to sampling, design, and data collection.

INDUCTION OF LEARNED HELPLESSNESS

Interpretation of Findings

The original theory of LH (Seligman, 1975) states that when organisms experience non-contingent events, they form the expectation that future events will be non-contingent as well. This is predicted to lead to three deficits, motivational, cognitive, and emotional, of which only the motivational and cognitive deficits are relevant to this study (see conceptual framework). Of these, the motivational deficit refers to a lowered probability of initiating voluntary instrumental responses, a consequence of an expectation that responding is futile. The cognitive deficit, on the other hand, refers to a difficulty in learning that responses produce outcomes when they do. Empirically, these deficits are considered to manifest themselves in: 1/ a retarded response latency (i.e. the time between the onset of a stimulus and the occurrence of instrumental responding towards it); 2/ a retarded overall duration of voluntary instrumental responses (demonstrated over a fixed time period commencing from the moment that the stimulus occurs); and 3/ the requirement of greater numbers of trials to solve a task (achieve criterion) compared to a no pre-treatment control group. These performance effects may present in either a

specific or generalised domain, with specific effects occurring within the same task as was used to induce helplessness, and generalised deficits occurring in an alternative task.

Within the current study, participants were exposed to a LHT which involved 'over-assisting' them with the ADL of eating and drinking during mealtimes. This intervention was influenced by the research of Lester and Baltes (1978) who observed the 'over-assisting' behaviours of carers during interactions with patients in the health care setting. The action of 'over-assisting' participants was considered to represent a positive non-contingent event. As such it was hypothesised to lead to the development of an expectation of future non-contingence with associated LH effects in accordance with LH theory. These effects were thought to represent at least one form of extrinsic patient dependence.

With regard to specific LH effects, the results of this study show that by exposing older patients to positive non-contingency in the form of 'over-assistance' with mealtimes (LHT), they later demonstrate several deficits within a contingent meal related task (test trial 1) compared with a no pre-treatment control group. These include significantly longer response latency times ($p<0.05$); and a retarded duration of voluntary instrumental responses during meals ($p<0.01$). Moreover, only 14.81% of participants in the LHT group put food to lips during the test trial compared with 42.86% of participants in the control group, demonstrating an increased failure to reach criterion. Therefore, according to LH theory, by over-assisting patients with their meal-related responses, an expectation of future non-contingency was effectively induced leading to the development of LH in the specific domain with concomitant motivational and cognitive effects.

In terms of generalised LH effects, the results show that by exposing older patients to positive non-contingency during mealtimes (LHT), patients performed significantly worse on the Object Assembly Task (OAT) ($p<0.01$) compared with the control group. Given that the OAT is distinctly different to the mealtime event used to induce LH, it seems reasonable to assume that the LHT group's poor performance resulted from the generalisation of LH effects. This generalisation, according to the attributional theory of LH (Abramson *et al*, 1978, 1980), is seen as relating to the specific/global

attributional dimension. Here, it is hypothesised that where individuals make global attributions (i.e. "My lack of control relates to *all* aspects of my participation within this study") as opposed to specific attributions (i.e. "My lack of control only relates to *specific* aspects of my participation within this study"), LH effects are likely to generalise to a broad array of situations. It may therefore be suggested that some, if not all of the participants formed global attributions regarding their experience of being over-assisted with the ADL of eating and drinking during LHT.

LH theory has been successfully applied in many human studies within the psychological domain (e.g. Thornton & Jacobs, 1971; Hiroto, 1974; Hiroto & Seligman, 1975), although the literature review indicates that other studies have yielded contrary results (e.g. Roth & Bootzin, 1974). From the perspective of the current study, however, the results provide convincing evidence that exposure to non-contingency through LHT can lead to an expectation of non-contingence with concomitant LH effects. Indeed, the researcher was surprised at how effective LHT was in producing such effects, a circumstance which seems to give credence to the suggestion by Raps *et al* (1982) that hospitalised people are more susceptible to LHT than alternative samples drawn from the community.

Relevance to health care

From the perspective of health care, one of the principle aims of this experimental phase was to investigate the onset of extrinsic dependence in older hospitalised people from the perspective of LH theory. As a means of achieving this, it was indicated by Peterson *et al* (1993) that the appropriate application of LH to social problems, including the issue of dependence, relies upon the extent to which a person or group demonstrate three of the theories most fundamental principles. These are: 1/ a previous exposure to uncontrollability; 2/ motivational effects as a result of an exposure to uncontrollability; and 3/ inappropriate cognitions leading to the generalisation of LH effects, again following an exposure to uncontrollability (Peterson *et al*, 1993). These principles were evaluated in the health care literature by conducting a thorough literature review prior to undertaking this study.

With regard to the first of these principles, the literature review indicated that older hospitalised people are exposed to an array of uncontrollability, much of which is created through negative

staff/patient interactions (i.e. Clark & Bowling, 1990; Mountain & Bowie, 1995; Grau, Chandler & Saunders, 1995; Draper, 1996). Despite the wealth of literature in this area, there was little firm evidence to suggest that uncontrollable circumstances could be detrimental to patients, although this notion had been cited in several opinion based papers (i.e. Solomon, 1982; Griffith, 1983; Foy & Mitchel, 1991). One study which was relevant to this issue, however, was that of Avorn and Langer (1982). This study used the intervention of over-assisting older nursing home patients with a jigsaw task prior to evaluating their performance on the same task during a later presented test trial.

Avorn and Langer's research showed that patients who were over-assisted with the jigsaw task performed significantly worse on the test trial than a no pre-treatment control group, and a group merely encouraged to complete the jigsaw during the training phase. This deficit was interpreted as having been caused through patients developing LH, a consequence of the patient's exposure to non-contingency (i.e. over-assistance) during the training phase. However, by testing patients in the same task as was used to induce LH (i.e. the jigsaw), Avorn and Langer's research could only be considered as demonstrating specific LH effects. Therefore, at this point, the health care literature only fulfilled two of the fundamental principles of LH outlined by Peterson *et al* (1993). Firstly, that older hospitalised people are occasionally placed in non-contingent circumstances, and secondly, that such circumstances can potentially lead to the development of specific LH effects. This of course left the third fundamental principle, that of 'inappropriate cognitions' (or the generalisation of LH effects), untested at this juncture.

To rectify this, this study aimed to fulfil all of the fundamental principles required for the application of LH as an explanation of hospital induced dependence. For example, it used a non-contingent event as a means of inducing LH and demonstrated how LH, once induced, leads to motivational performance deficits. Finally, these performance deficits have been shown in both a specific and generalised domain. However, the argument in favour of LH as an explanation of extrinsic dependence is more than this research's simple fulfilment of the theory's fundamental principles. For example, as mentioned previously, the LHT intervention of 'over-assistance' relates to a class of nurse/patient interaction which has previously been observed in the clinical setting (Lester & Baltes,

1978) and is thus relevant to the field of health care. Secondly, the performance deficits resulting from the patient's exposure to 'over-assistance' resemble dependence in so much as the ADL of eating and drinking was either not performed, or performed poorly in the absence of 'supervision, direction or active personal assistance.' It may therefore be suggested that this research legitimises the utilisation of LH theory as an explanation of hospital induced patient dependence. Although, this is not to say that LH is the *only* form of such a dependence. For example, the literature review also alludes to other pertinent forms including 'sick role theory' (Parsons, 1951), 'instrumental passivity' (Baltes, 1982), and 'self-regulated dependence' (Baltes, 1996).

With reference to this study's 'over-assisting' intervention, it is important to note that this is just one form of disempowerment which has the potential to induce LH effects. Other forms mentioned in the literature include behaviours such as restraint, dominance, and intimidation (Clark & Bowling, 1990; Mountain & Bowie, 1995; Draper, 1996). These behaviours, however, are in contrast to 'over-assistance' in that they generate a negative rather than a positive non-contingence. Negative non-contingence, according the LH theory, puts patients at even more risk, leading not only to the development of motivational and cognitive LH effects, but also to the additional affect of depression. Combined, these effects could have potent negative ramifications on the mental and physical well being of patients, thus retarding their rate of recovery and rehabilitation. Furthermore, the demonstration that LH effects generalise to alternative tasks, indicates that by decreasing control in one aspect of a patient's life, performance may be retarded in a multitude of others. These findings therefore indicate that hospital staff should reduce older hospitalised patient's exposure to uncontrollable or disempowering circumstances.

INDUCTION OF LEARNED MASTERY AND LEARNED HELPLESSNESS ALLEVIATION

Interpretation of findings

LM theory (Peterson *et al*, 1993) argues that when organisms are exposed to contingent events, they develop an expectation that future events will also be contingent. This is predicted to lead to motivational and cognitive effects which are the antithesis of LH, for instance an increased incentive motivation and an augmented perception of contingencies. These effects may be empirically

demonstrated through: 1/ a more rapid response latency; 2/ an augmented overall duration of voluntary instrumental responding; and 3/ fewer trials to solve a task (achieve criterion), compared to an equivalent no pre-treatment control group. Furthermore, these effects should fall within both a specific and generalised domain.

The LMT intervention used in the current study was influenced by Peterson *et al* (1993) and Thornton and Powell (1974), and involved informing participants about the controllability of future meal related events prior to exposing them to two contingent training meals. The action of changing participant's expectation of control in the direction of contingency was hypothesised to lead to the development of LM effects and the optimisation of patient independence in the health care setting. However, as well as evaluating the role of LMT in optimising independence (i.e. procedure 1), this study also assesses its utility as a means of alleviating LH induced dependence (procedure 2). The logic behind utilising LMT in such a process relates to its antithetical relationship with LH. For instance, the development of LH and LM depends upon an individual's control expectancy. If this expectancy is in the direction of non-contingence, then LH will ensue, if in the direction of contingence, then LM will ensue. Therefore, it stands to reason that if a helpless individual with an expectation of non-contingency is exposed to circumstances which alter that expectation in the direction of contingency (as with LMT), then LH ought to be alleviated.

Regarding LMT in *procedure 1*, the results relating to specific LM effects show that by increasing older hospitalised people's expectation of control in the direction of contingency during mealtimes, they later demonstrate an increased overall duration of voluntary instrumental responses within a contingent meal related task (test trial 1) compared to a no-pre-treatment control group ($p<0.05$). Moreover, 77.27% of participants in the LMT group put food to lips (i.e. achieved criterion) during the test trial compared with only 42.86% in the control group. Response latency results, however, were shown to be non-significant, although the mean scores on this variable were in the predicted direction. Subsequently, the balance of results indicate that by increasing older hospitalised people's expectation of control over the mealtime event, they develop an expectation of contingency with concomitant LM effects being expressed behaviourally through enhanced incentive motivation and an

increased awareness of contingent circumstances. Here, LM effects may be seen as causing patients to become increasingly independent with the ADL of eating and drinking which was performed in the absence of 'supervision, direction, or active personal assistance.' These effects, however, were not found to generalise to an alternative task in this instance. For example, no significant differences were found between the LMT and control group means on the object assembly task leading to the conclusion that patients only demonstrated LM in the specific domain. However, once again the group means on this variable were in the predicted direction.

Regarding LMT in *procedure 2*, the results relating to the alleviation of specific LH effects showed that by changing the expectation of helpless older patients (LHT-LMT) from non-contingency to contingency during mealtimes, they result in an enhanced meal task performance relative to the main study variables. These included faster response latency times ($p<0.01$); an increased overall duration of voluntary instrumental responses ($p<0.01$); and increased successes in reaching criterion ($p<0.01$). Therefore, by increasing helpless patient's expectations of control over a task, the researcher effectively induced the circumstances necessary for the development of LM within the specific domain. This new mind set was in conflict with that previously induced by LHT, thus alleviating LH induced dependence and moving the patient in the direction of increasing independence.

Regarding the alleviation of generalised LH effects, the results show that by changing older hospitalised people's expectation of control towards contingency, they demonstrate an enhanced performance on the OAT ($p<0.01$). This task is distinctly different from the meal-related task within which LM was induced, thus LM effects may be said to have generalised to an alternative task. Here, generalised LH effects, previously induced through LHT in procedure 1, are shown to have been alleviated with participants in the LHT-LMT group demonstrating OAT scores which are not significantly different to those of the control group in procedure 1.

If we accept that attributional dynamics, such as those described by Abramson *et al* (1978, 1980), are as relevant to LM theory as they are to LH theory, then it may also be possible to interpret the generalisation of LM through the specific/global attributional dimension. For instance, one could

hypothesise that where individuals make global attributions regarding their mastery (i.e. "My control relates to all aspects of my participation in this study"), as opposed to specific attributions (i.e. "My control only relates to specific aspects of my participation within this study"), LM effects are likely to generalise to a broad array of situations. It may therefore be surmised that some, if not all participants formed global attributions once given an expectation of future control during LMT.

Unlike LH theory, very few psychological studies have attempted to apply LM theory to humans. This research therefore strengthens the claim that strategies which engender an expectation of future contingency lead to LM, a condition which is accompanied by an increased incentive motivation and enhanced perception of contingent circumstances as demonstrated by the results of procedure 1. Moreover, such LM inducing strategies may also be utilised as a means of reversing LH both within the specific and generalised domain as suggested by Peterson *et al* (1993), and Thornton and Powell (1974) and shown in the results of procedure 2. Whilst this research confirms LM theory, however, it does little to extend it. Here, there are a number of issues which need to be resolved. For example, is LM influenced by attributions in the same way as LH? Secondly, does LM lead to an enhanced sense of happiness, in the same way as LH is predicted to lead to a depressed affect? Given the antithetical relationship that LM has to LH, the answer to these questions ought to be 'yes.' However, much more research needs to be generated in this field if we are not to lose sight of these issues.

Relevance to health care

From the perspective of health care, little research had been conducted regarding the therapeutic effects of informing patients about future contingencies, with the only relevant papers found by this literature review being those of Langer and Rodin (1976), and Mercer and Kane (1979). These papers, which fall outside LH paradigm in terms of their methodology, used an intervention which involved informing older institutionalised people that in future they should expect to have enhanced personal responsibility and control over their lives within the home. Subsequently, patients were found to become more active, alert, and willing to participate in nursing home events.

Whilst the results of these studies are suggestive of LM, they do not demonstrate LH alleviation. This is because the participants had not been previously exposed to LHT prior to the LM intervention, thus it is difficult to suggest that the resulting performance gains were a product of LH alleviation as opposed to the alleviation of other forms of dependence (i.e. sick role, instrumental passivity, self-induced dependence). It should also be noted that both studies suffered from design weaknesses. For instance, the LMT intervention not only involved informing participants about the contingency of future events (i.e. a speech made by the home manager), but also involved exposing participants to two new contingent events. For example, in the case of Langer and Rodin, these events were a movie (whereby patients could choose which night to see it), and a decorative plant (which they were given the responsibility of caring for). Therefore the LMT interventions of both Langer and Rodin, and Mercer and Kane were confounded in so much as they pertained to two different interventions: 1/ informing residents of the contingency of future events; and 2/ increasing the residents' exposure to contingency, making it difficult to evaluate which intervention, if not both, accounted for the resultant performance gains. It was therefore concluded at this juncture, that no health care research had effectively demonstrated the salience of LMT with regard to the alleviation of LH induced dependence.

In an attempt to address this literature gap, this research exposed participants to a preliminary LHT intervention, the aim of which was to induce and empirically evaluate LH effects prior to LMT, thus allowing the performance gains yielded by LMT to be specifically linked with the alleviation of LH. In line with LM theory, the results showed that helpless participants exposed to LMT performed significantly better on both a meal-related task (specific LH alleviation), and a psychomotor task (OAT), (generalised LH alleviation), compared with an equivalent control group. It is therefore suggested that the empowering intervention of giving patients an expectation of contingency caused LH induced dependence to be alleviated with patients becoming increasingly independent. These findings persuasively indicate the therapeutic potential of increasing older hospitalised peoples' expectation of controllability. Patients seem to function better under such circumstances and with the demonstration that LMT alleviates LH in a generalised domain, it is suggested that by increasing

expectation of control in one aspect of a patient's life, performance might be enhanced in a multitude of others.

Other findings

Another issue which is relevant to this study regards the variable 'overall duration passive.' This observational variable, which was measured during the meal related test trials, yielded significantly different results between groups throughout the experiment. In procedure 1 for instance, significant differences on this variable were found between LHT and control groups ($p<0.05$); LMT and control groups ($p<0.05$); and LHT and LMT groups ($p<0.05$), with passivity increasing from LMT to Control to LHT groups. Further differences were found between the LHT-LMT and LHT-control groups of procedure 2 ($p<0.01$), (mean difference between test trials 1 and 2), with passivity decreasing significantly in the LHT-LMT group.

Although not covered by the hypotheses outlined in the conceptual framework, 'passivity' may well have been included as a salient variable for the measurement of LH (and thus LM) within this study. This is because authors from the LH paradigm (including Seligman, Maier, and Peterson) often use the symptoms of 'increased passivity' and 'decreased instrumental responses' interchangeably to represent the motivational LH deficit. Subsequently, in an attempt to avoid methodological complications, it was decided to adopt the variable of 'instrumental responses' as a means of measuring LH (and LM) effects. For example, it was felt that it would be easier to observe behaviour (i.e. instrumental responses), than its *absence* (i.e. passivity). Nevertheless, the significant results yielded by the 'passivity' variable, which are in line with LH paradigm, provide further credence, if only tangentially, to the experimental findings.

STUDY LIMITATIONS

Study limitations relevant to the above experiment fall into three categories, sampling deficiencies, design deficiencies, and data collection deficiencies. Regarding the first of these categories, a number of sampling deficiencies may be cited including issues related to selection criteria, sampling methods, and response rates. The selection criteria for instance, were extremely limiting with regard to the

proportion of older hospitalised people who were eligible to participate. Although wholly justified given the nature of the experiment, with selection items relating to experimental control and ethical procedures, this criteria ultimately produced a sample of elite older patients (i.e. patients with no mental or visual impairment, no depression or pain, and no physically deficits in their upper body). As such, it could be said that the final sample was unrepresentative of the study sites used, l*et al*one older hospitalised people in general. Moreover, the unrepresentative nature of the study sample was compounded still further by the use of a convenience sample and participatory response rates which were only slightly higher than 50%.

Unrepresentative samples ultimately affect the external validity of a study, or the extent to which the experimental results can be generalised to samples other than those used within the research. Caution must therefore be stressed when making any generalisation from these results. However, it is worth noting that many of the sampling deficiencies mentioned above were caused, somewhat ironically, by the researchers attempts to produce well controlled, ethical research. Here the researcher was unwilling to trade sample representativeness for experimental and ethical rigor.

Regarding design deficiencies, several issues have been discussed previously in the methodology section, including issues related to external validity subsequent to the use of a pretest - posttest design in procedure 2, and the difficulty in yoking the stimulus of food between experimental groups thus reducing the level of stimulus control. However, one issue not as yet mentioned, and yet one requiring careful consideration, regards the use of a LMT intervention which exposes patients not only to an expectational change statement, but also to two contingent training meals. For instance, it could be argued that this intervention is confounded through its use of two interventions similar to the research of Langer and Rodin (1976) and Mercer and Kane (1979), i.e. informing patients of the contingency of future events; and increasing the patient's exposure to contingency. This potential criticism, however, would be unfounded for the following reasons. Firstly, the study sample was made up of patients who were independent with the activity of eating, therefore it may be assumed that mealtimes have represented a 'contingent' event for these people for a great number of years. Subsequently, the 'contingent' training meals used within this research were not *additional* contingent events, such as

the 'movie' and 'decorative plant' used in the research of Langer and Rodin (1976). Therefore, the patient's exposure to contingency was not increased, but instead remained the same. Secondly, it is indicated in the method that the contingent training meals were merely used as a vehicle to continue giving patients an expectation of contingency. For instance, if the patient asked "what do you want me to do?" the researcher would reply "you're in control now." Here, it is important to stress that no other intervention was employed. It is therefore concluded that the LMT of this study is not confounded, and consists only of the intervention of changing the individual's expectation in the direction of contingency.

Despite this rational justification of LMT, it is worth asking the question of whether the intervention could have been conducted differently. The simple answer to this is 'yes it could.' For instance, the researcher could have submitted participants to the interventional statement, then merely commenced with the test trial without including the two training meals. Whether such a change would have been better, however, is debatable. For example, although the intervention would have been made clearer, the 'Code of Conduct, Ethical Principles and Guidelines' of the British Psychological Society (1997, chapter 3; section 8.2) remarks that:

> *"Where research procedures might result in undesirable consequences for participants, the investigator has the responsibility to detect and remove or correct these consequences."*
> (British Psychological Society, 1997, p10)

This comment, which is extremely pertinent to this study, mixed with empirical evidence suggesting that LH, once induced, is not easily alleviated (Seligman, Maier & Geer, 1968), was influential in the researcher's decision to assist participants in making the expectational transition from non-contingency to contingency by sustaining the expectational change intervention throughout two contingent training meals. Here, the researcher attempted to reduce the risk that LH, the 'undesirable consequence' of LHT, would not be properly alleviated, a situation which would be ethically unacceptable.

Regarding data collection deficiencies, pertinent issues include participant reactivity to video observation, and the behavioural affects of the Clever Hans phenomenon. However, one issue, not as yet discussed, relates to the use of an 'unblinded' experimenter to conduct test trials and collate data.

The reason for this relates purely to the issue of available resources, with the author being the only human resource available on a full time basis.

The use of an unblinded researcher within the study casts the issue of experimenter bias into the spotlight. For instance, a researcher with prior knowledge of a participant's interventional status, might inadvertently influence the behavioural responses of participants during the test trial, or misinterpret test trial behaviours whilst collating the observational data. Moreover, it is important to note that these biases may occur either inside or outside of the researcher's awareness. As a result, this research employed a number of safeguards in an attempt to reduce experimenter bias. These included the documentation of, and adherence to, a detailed record of experimental procedures, and the use of test-retest and inter-rater methods of reliability testing regarding the collation of observational data (results from these tests are reported in tables 6.4 to 6.7).

CHAPTER TEN

DISCUSSION: EXPLORATORY PHASE

INTRODUCTION

This chapter will review the results of the Act Frequency Approach (AFA) conducted on the concepts of empowerment and disempowerment. It will commence with an overview of the main *experimental* findings outlining how the exploratory phase aimed to further this research. Following this, the application of the Patient Empowerment Scale (PES) on five study sites will be discussed. This will include an interpretative analysis of data from related descriptive, inferential and correlational statistics. It will also include a more detailed evaluation of the act frequencies of individual PES items on a single study site. Finally, results from the principle components analysis of empowerment and disempowerment will be discussed prior to a critical review of the exploratory phase as a whole.

BACKGROUND

Findings from the previous experiment showed that by exposing older patients to disempowering acts (or circumstances which prevent them from asserting control over their lives) they develop an expectation of future non-contingency and Learned Helplessness induced dependence in accordance with LH theory (Seligman 1975). Conversely, by exposing older patients to empowering acts (or circumstances which assist them to assert control over their lives) they develop an expectation of future contingency effectively alleviating LH, and moving them in the direction of independent functioning in accordance with LM theory (Peterson *et al*, 1993).

These findings are relevant in shaping the care of older hospitalised people in so much as they indicate that hospital staff should adopt a more empowering and less disempowering approach to practice. However, in the absence of a firm understanding of how empowerment and disempowerment are expressed in care, and with no valid means of evaluating these concepts within the natural ward setting, this recommendation is hollow and difficult to implement. Subsequently, this exploratory phase aimed to: 1/ develop a means of measuring the frequency of empowering and disempowering acts in the hospital setting; 2/ to utilise this measure as a means of evaluating the

frequency of empowering and disempowering acts to which older hospitalised people are exposed; and 3/ to generate salient models of empowerment and disempowerment as they pertain to health care. This would: 1/ enable the researcher to identify the extent to which hospital environments put patients at risk of developing LH, or facilitate LM; and 2/ lead to a greater understanding of the concepts of empowerment and disempowerment as expressed in the health care setting.

These aims were fulfilled through the researcher's development of the Patient Empowerment Scale (PES) using the Act Frequency Approach (AFA) of Buss and Craik (1983), (see Chapter 7). Having developed this scale, it was applied on five ward based study sites as a means of evaluating patient exposure to empowerment and disempowerment. Finally, data yielded by the PES were submitted to a factor analysis enabling the researcher to examine the principle components of empowerment and disempowerment and fashion associated models of these concepts.

PES FINDINGS FROM FIVE WARD SITES

Interpretation of ward PES scores

In this study, the PES was utilised to assess the frequency of empowering and disempowering care on five ward based study sites. These sites yielded an overall mean PES score of +24.73 indicating that patients were more likely to encounter circumstances consistent with the development of LM (i.e. leading to greater independence), than LH (i.e. leading to greater dependence). Individual ward scores were found to vary significantly. Of these scores, the surgical ward (site 3) yielded the highest PES with a mean of +31.62, followed by the medical wards (sites 2, 4 & 5) with scores ranging from +23.85 to +26.55. Finally, the elderly care rehabilitation ward (site 1) yielded the lowest PES with a score of just +15.70. This score was found to be significantly lower than all other study sites ($p<0.05$ to 0.01). Moreover, with a disempowerment sub-scale score of -7.45, disempowering acts seem to have occurred relatively frequently on this site, thus increasing the patient's risk of developing LH.

This variability of PES scores was evaluated by conducting an examination of the ward profiles of study sites 1 and 3, the *least* and *most* empowering wards respectively. Upon evaluating these profiles, the first thing that is noticeable is the immense difference between Barthel Index scores. For

instance, the rehabilitation ward (site 1) yielded a particularly low overall Barthel of 8.78 out of a possible 20, whilst the surgical ward (site 3) yielded a substantially higher Barthel of 18.8. This indicates that patients on the rehabilitation ward were significantly more dependent. However, rather than answering the question of why some wards expose patients to lower levels of empowerment, this difference seems to restate it. For instance, if patients on the rehabilitation ward were as dependent as the Barthel index indicates, then this ought to have led to higher levels of empowering care. The findings, however, show the relative opposite, so were there enough staff to deliver this care?

Concerning this question, the ward profiles indicate that staffing levels for the rehabilitation ward were substantially greater than those for the surgical ward (mean staff/patient ratios: rehabilitation ward = 0.22/1; surgical ward = 0.11/1). However, the apparent differences in relative skill mix between the wards were intriguing, with staff grades on the rehabilitation site being bottom heavy with junior and untrained staff (staff grades: F=2; E=2; D=6; A=6) compared with the surgical site (staff grades: F=2; E=9; D=1; A=2). Adding further to the proliferation of lower ranking staff on this site were a number of 'ward assistants.' These staff, ranked lower than health care assistants, were brought in to help with bed making, filling in menu cards, serving meals, and other housekeeping duties. As such, they would have had a reasonable amount of contact with ward patients.

Therefore, could the skill mix of the rehabilitation ward, with its high ratio of lower qualified staff, have lead to the ward showing lower levels of empowering care within the PES? Some credence to this argument is provided by Ford and Walsh (1994) who, with reference to this issue, suggest:

> *"Most nursing assistants are self-motivated and caring people, but they lack any formal education and have a narrow perspective on care stemming from limited experience. Dependence upon assistants limits the delivery of care to very narrow, standardised pathways"*
>
> (Ford & Walsh, 1994, p9)

This argument is supported in a study by Carr-Hill, Dixon, Griffith, McCaughan, and Wright (1992), which showed that high standards of care depend upon the use of a high proportion of qualified staff. Moreover, in the qualitative study of Grau, Chandler, and Saunders (1995) which explored the perceptions of nursing home resident's 'best' and 'worse' experiences of care, findings indicated that the residents were least satisfied with care provided by nursing aides, and most satisfied with care

provided by qualified staff. Therefore, one possible factor influencing levels of empowering care could relate to skill mix. Here, levels of empowerment seem to increase commensurate with the employment of higher proportions of qualified or more senior staff, a finding which seems to fit the profile data from all study sites. This may be due to qualified staff having higher levels of education and experience, as is suggested by Ford and Walsh (1994). An alternative interpretation, however, would suggest that by using higher proportions of qualified staff, junior staff would be more adequately supervised whilst on the ward (Patton-Dumbar, 1995). Of course, the reality may well involve a combination of both factors.

Interpretation of correlational statistics

With regards to correlations between PES scores and age, the elderly care rehabilitation ward (site 1), as well as the overall study sample, showed a significant negative relationship (site 1, $r=-0.70$, df 19, $p<0.01$; all sites $r=-0.24$, df 101, $p<0.05$). These findings suggest that as age increases, there is a commensurate decrease in the patient's exposure to empowering circumstances. The researcher also conducted a correlation between ward PES scores and ward Barthel index scores (as reported in table 7.1) yielding a positive relationship between these variables ($r=0.90$, df 4, $p<0.05$). This finding shows that the more functionally disabled a group of patients are, the less empowering the environment caring for them.

Taken together, these correlations appear to contradict a logical approach to caring for older people, especially those with mental and/or physical infirmities. Surely the older and more functionally impaired patients are, the *more* they should be empowered? From this perspective, the findings shown by site 4, where age is significantly associated with *increased* levels of empowerment (medical ward, $r=0.49$, df 19, $p<0.05$), would seem to represent a more positive direction for practice. In trying to make sense of these results, it is tempting to suggest that ageism, or other discriminatory attitudes, are responsible for the production of less empowering care in some hospital environments. In making such an interpretation, however, the researcher is fully aware of the notorious difficulty in interpreting correlational statistics. For instance, unlike experimental and quasi-experimental studies, correlational

studies lack active manipulation of the independent variables. Consequently, postulations regarding relationships among variables in terms of cause and effect are risky (Powers & Knapp, 1990).

Interpretation of individual act items

It is clearly beyond the scope of this thesis to consider the frequency of individual acts for all five study sites. Instead, it was decided to focus on the rehabilitation ward, which, as mentioned above, scored significantly lower on the PES than all other study sites. However, to reduce the risk of misrepresenting the dataset as a whole by focussing on just one study site, data from the surgical ward, which showed the highest PES, were used as a means of comparison.

Act evaluation involved calculating the mean act frequency scores for individual items of the empowerment and disempowerment sub-scales of the PES. These were then placed into a bar chart enabling the researcher to evaluate the most frequently occurring empowering and disempowering staff acts for each environment in question (see figures 8.1 and 8.2 for empowerment; and figures 8.3 and 8.4 for disempowerment). This, it was hoped, would provide a useful frame of reference for ward managers, who, by disseminating these findings to ward staff, might make them more aware of their collective approach to care.

An evaluation of the empowerment sub-scale relevant to the elderly care rehabilitation ward (see figure 8.1) shows that staff were fairly empowering with regards to items E09; E13; and E01; with mean scores of 1.65; 1.55; and 1.50 respectively as indicated by the peaks of the bar chart. If we now translate these items in terms of the acts which they represent, we might suggest that staff on this environment were most frequently empowering with regards to respecting patient's choices (E01); allowing patient's time to eat food and drink before clearing it away (E13); and making sure that patient's call bells were within reach (E01). However, as well as evaluating the acts occurring *most* frequently, it is also worth considering acts occurring *least* frequently. These acts are relevant in so far as they represent areas for future improvement with regard to the delivery of empowering care. On the rehabilitation ward they included items E07; E16; and E03, with mean scores of 0.55; 0.70; and 0.90 respectively as indicated by the troughs of the bar chart. Again, by translating these items in terms of

the acts which they represent, it may be suggested that staff were least frequently empowering with regard to resolving patient's complaints (E07); familiarising patients with their surroundings (E16); and working quietly at night to help patients get to sleep (E03).

As a comparison to the results from the rehabilitation site, we might consider the act frequency scores for the surgical ward (see figure 8.2). These show greater frequencies of empowering acts relevant to all items. However, despite this, there remain items which feature less prominently, for instance items E07; E18; and E15. These items indicate that staff were less frequently empowering with regard to resolving patient's complaints (E07); seeking patient's permission prior to conducting nursing tasks (E18); and providing information about patient's future care options (E15).

If we now turn our attention to acts relevant to the disempowerment sub-scale for rehabilitation (figure 8.3), we see that act frequencies are greatly diminished. Despite this, several disempowering acts are shown to occur relatively frequently, including items D03; D09 and D15 with mean scores of 1.05; 0.70; and 0.55 respectively as indicated by the peaks on the bar chart. Translating these items into acts, we might suggest that staff on this environment were most frequently disempowering with regard to being noisy at night preventing patients from sleeping (D03); busying themselves with other tasks when they realised patients needed help (D09); and responding slowly to patient's complaints of being in pain (D15).

From the perspective of the surgical ward (figure 8.4), the frequency of disempowering act items is seen to be very minimal, with eight of the twenty acts not registering at all (i.e. D02, D05, D06, D07, D18, D19, D20). Nevertheless, several peaks are shown on the bar chart including items D04; D03; D11; and D14. These acts suggest that staff on this environment were most frequently disempowering with regard to attending to patients without asking their permission (D04); being noisy at night preventing patients from sleeping (D03); disclosing private information in an area where it might be overheard by other patients (D11); and giving information at a rate too fast for patient's to understand (D14).

Caution was exercised when interpreting act frequencies to ensure that they accurately reflected the current practices of staff. For instance, despite item E07, "staff resolve your complaints," representing the *least* occurring empowering act for both rehabilitation and surgical sites, this finding does not necessarily mean that patient complaints were inadequately dealt with. Instead it could mean that patient's simply didn't make any. Deciding between these two interpretations requires an examination of the questionnaire mark sheet. Here, a response of "never" should indicate that patient's complaints were not resolved; whilst a response of "not applicable" should indicate that no complaints were made. However, in the current study, some participants circled both responses making the interpretation of this item difficult.

Part of the problem with this item (E07) is that it relies on patient action in order to provoke staff reaction, thus limiting its general applicability to all patients. This weakness also occurs with three other PES items (i.e. item D02, also pertaining to the resolution of complaints; and items E06 and D27, both pertaining to the resolution of pain). However, there are two solutions to this problem. Firstly, the researcher could make sure that all participants specify "never" or "not applicable" on the questionnaire for these items. Although another possibility would be to replace these acts with four alternatives drawn from 'proto 2' of the AFA. Of these solutions, the latter seems more attractive as it would ensure that the PES was applicable to more patients. Having reviewed the acts from 'proto 2,' appropriate alternatives might be: "Do staff promote your privacy whist performing a personal task" (Q31) and "Do staff explain procedures without using complicated medical jargon?" (Q60) for empowerment, and "Do staff place your food and drink out of reach?" (Q53) and "Do staff blame you for things that you can't help because of your illness or disability?" (Q35) for disempowerment.

Another issue relevant to interpretation concerns whether or not the act "Staff ask you to do things which you can't do because of your illness or disability" (item D12) represents a disempowering act from the perspective of rehabilitation. For instance, an argument against D12 being disempowering might suggest that part of the rehabilitation process involves challenging patients to undertake tasks which they themselves, through a lack of awareness, consider to be beyond them. From this perspective, item D12 is related to the technique of "prompting" which is often used to increase

functional awareness in mentally and/or physically impaired patients (Hudson & Macdonald, 1986). On the other hand, if we accept that the requested tasks of item D12 (i.e. "Staff ask you to do things....") is truly outside of the patient's capabilities, then we have to ask the following questions. Firstly, has the carer correctly assessed the patient's functional capabilities? Secondly, has the carer attempted to break the task down into smaller more achievable components? And finally, has the task been discussed with the patient culminating in an *agreed* plan of care? If the answer to any of these questions is no, then D12 may well be considered disempowering.

One final issue regarding the interpretation of acts relates to item D03, "Staff are noisy at night preventing patients from sleeping," which was the most frequently occurring disempowering act for the rehabilitation site. The presence of this act in hospital environments may be interpreted in several ways. For example, staff might unwittingly talk too loudly among themselves, or perhaps the ward is generally quite busy with admissions at night thus disturbing established patients. Yet another interpretation is revealed by considering the comparative differences in noise level for a patient positioned in a side room, a four-bedded bay, or a Nightingale ward. These issues make item D03 difficult to interpret, thus highlighting the importance of keeping field notes during the administration of the PES. For instance, patient remarks from the field notes of site 1 indicate that staff often 'laughed and joked' around the nurse's station at night, showing a general lack of consideration for patients trying to sleep. These types of remarks were commonly made by patients whilst completing the PES, with the presentation of PES items apparently prompting patients into relaying vivid accounts of their care.

FACTOR ANALYSIS

A factor analysis was conducted on the empowerment and disempowerment sub-scales of the PES, the results of which are reported in tables 8.21 and 8.23 respectively. Overall, six components were yielded for empowerment and seven for disempowerment, each component relating to a distinct set of sub-scale items. These items were subjected to an interpretative evaluation, the aim of which was to extract a single semantic factor for each component. Within this evaluation, attention was given not only to the meaning of items, but also its associated coefficient, with items yielding higher

coefficients being considered more likely exemplars of the component in question. Having evaluated the meaning of components relevant to empowerment and disempowerment, models of these concepts could be developed (presented in figures 10.1, empowerment; and 10.2, disempowerment). These models represent the interface between objective investigation and subjective interpretation, with the researcher attempting to balance these opposing influences in order to create a mutually workable framework.

Model of Empowerment (an overview)

According to the factor analysis, the principle components of empowerment fall into two categories, primary components, which are broad categories forming the backbone of this concept, and subsidiary components, which are more specific categories seen as relating to one or other of the primary components.

Altogether, three primary components were identified, 1/ promoting patient independence; 2/ awareness of patient needs; and 3/ promoting information exchange. Regarding the first of these components, 'promoting independence,' relevant items from the PES include the issues of familiarising patients with their surroundings (E16) and ensuring that the environment is suitable for patients to engage in activities independently (E11). It will also be noted in figure 10.1 that a related subsidiary component refers to the issue of allowing patients adequate time to complete tasks (E13). Taken together, these items provide examples of interventions which facilitate instrumental behaviour. For instance, the act of familiarising patients with their surroundings is particularly salient to this issue, especially where patients are new to a setting, or suffer from a perceptual or visual impairment (i.e. hemianopia or blindness). This simple strategy draws patient's attention to the spatial position of aspects of the environment which are relevant to an activity, thus negating the need for extensive exploration and enabling instrumental behaviour.

Items related to the second primary component, 'an awareness of patient needs,' indicate that staff should be aware of both the physical and emotional needs of patients. For instance, from the perspective of physical needs, staff might make themselves available when patients require assistance

(E08), work quietly at night to help patients get to sleep (E03), and treat patients quickly after they have complained of pain (E06). From an emotional needs perspective, staff might show understanding when discussing patient's problems (E14).

The final primary component of empowerment is the promotion of informational exchange. This is quite a large component, which is joined by two subsidiary components: 'promoting patient choice;' and 'discussing future care options.' Items relevant to these components may be seen as referring not only to the provision of information by staff, but also the encouragement of patients to provide feedback. With regard to the former, items include providing patients with information about their illness (E04), future care options (E15), and choices (E20). Meanwhile, the act of gaining feedback from patients is indicated by the item 'staff make sure that the information given to patients has been understood' (E12). Other items seem to relate to staff responses to feed back (i.e. 'staff listen to what patients say without interrupting,' E10), or ongoing dialogue (i.e. staff answer patient's questions clearly, E05; respect patient's choices, E09; and give encouraging remarks to patients for achieving specific health goals E02).

Although the dissemination of items relevant to individual components of empowerment in figure 10.1 provide useful examples of care, it is important to note that they are *just examples*. For example, component 1 of empowerment, 'promoting independence,' refers to an extremely complex process involving methods of assessment, goal setting, and patient teaching. Clearly then, the items presented as examples of this component (E16; E11; E01) cannot be considered to be representative of this entire process. Moreover, the utility of these items may not be suitable for all patients. Consider the item "Staff make sure that patient's have their call bells within reach (E01)," which may be assumed to advocate that patients should perform activities alone. This, however, is not necessarily the case, and would depend very much upon the carer's assessment of the patient's supervision needs. In some respects this point exemplifies the difficulties of advocating elements of care as being suitable for all, whereas in reality, care should be tailored to the individual needs of patients.

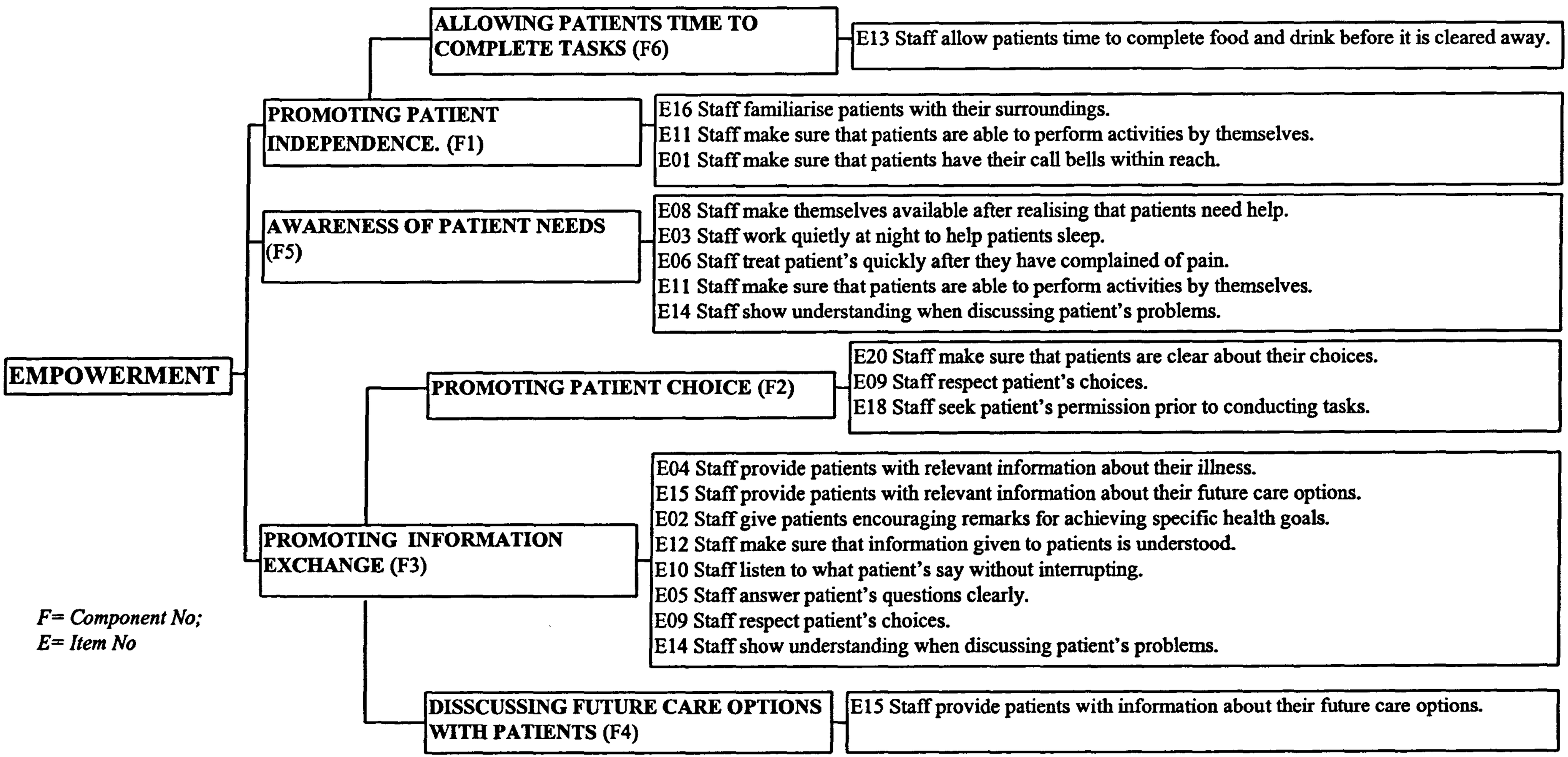


Figure 10.1 A Model of Empowering Care

However, whilst items relevant to each principle component should be considered carefully regarding their utility with certain patient groups, the components themselves, presumably due to their breadth of meaning, provide a salient framework for guiding the development of empowering strategies. As for the strategies, these will rely on the creativity and skill of the practitioner working collaboratively with patients towards the attainment relevant and achievable health care goals.

Model of Empowerment (related literature)

The concept of empowerment has become widely used in health care where it is often seen as relating to patient-centred approaches to care (Hagner & Morrone, 1995; Wright, 1995). However, as the application of this concept broadened, so too did the range of definitions attributed to it, leading to the generation of a number of papers attempting to provide a more focused interpretation (including McKay, Forbes & Bourner, 1990; Gibson, 1991; Malin & Teasdale, 1991; O'Donnell, 1993; Elliot & Turrell, 1996; Rodwell, 1996; Fulton, 1997). Of these, Gibson (1991) conducted a detailed concept analysis of empowerment as it applies to nursing, which is based on the health care literature available at the time. This culminated in the development of a model of empowerment which lists the attributes of patients (i.e. self-efficacy, motivation, learning); nurses (i.e. helper, support, counsellor); and their mutual interaction (i.e. trust, empathy, and co-operation) deemed relevant to the concept. However, in criticism of this model, it could be argued that empowerment is not expressed as an *attribute* of a person or circumstance, but instead as an *act*. For instance, a nurse may be a 'helper,' 'facilitator,' 'enabler,' or 'advocate,' but the possession of these qualities will not empower patients unless translated into a relevant activity of care. Unfortunately, it is at this most crucial of points that Gibson's model falls silent, and it is unclear how the nurse who is a 'helper,' or 'facilitator' etc. might put these qualities into action.

The issue of defining the nurse's empowering role is considered in more detail by Malin and Teasdale (1991), where it is seen as relating to the following quotation (ENB, 1989).

> *"The function of the nurse...is to directly and skilfully assist the individual... in the acquisition, development and maintenance of those skills that, given the necessary ability, would be performed unaided, and to do this in such a way as to enable independence to be gained as rapidly and fully as possible."*
>
> (ENB, 1989, Cited in Malin & Teasdale, 1991, p658).

Therefore, according to Malin and Teasdale, the nurse's role in empowering patients involves care which maximises independence, a definition which fits the findings of the *experimental* component of this thesis presented earlier. However, whilst this definition provides a solid basis from which to thoroughly explore the scope of empowerment as it pertains to nursing, Malin and Teasdale choose to focus on one aspect alone, the provision of information as a means of facilitating patient choice. This aspect of empowerment is not disputed by this thesis, indeed the 'promotion of information exchange' features prominently in the model of empowerment illustrated in figure 10.1. Nevertheless, given that the central aim of empowerment is considered to be the maximisation of independence, it is tempting to think that the scope of this role extends beyond this singular aspect. It is therefore worth considering literature related to this central aim as a means of providing a more comprehensive view of empowerment.

Regarding this issue, a paper by Davis, Laker and Ellis (1997) presents a detailed literature review on the promotion of independence in older hospitalised/institutionalised people culminating in the presentation of a series of evidence-based strategies. These strategies are shown below, with related components from the factor analysis of empowerment presented in this study (see figure 10.1) being displayed in parenthesis.

1. *Ensuring that care planning is tailored to individual needs* **(F3).**
2. *Using strategies of communication which encourage patient choice and participation in decision making* **(F2, F3, F4).**
3. *Providing adequate information in promoting patient recovery* **(F3).**
4. *Eliciting feedback from patients in relation to care given* **(F3).**
5. *Recognising patients as people with individual needs* **(F5).**
6. *Attempting to promote patient privacy and dignity wherever possible.*
7. *Using patterns of communication which avoid exerting power and control over patients* **(F2, F3).**
8. *Attempting to modify the environment to promote independence and minimise risk* **(F1).**

(Adapted from Davies, Laker & Ellis, 1997, p411 and p415)

As can be seen, the strategies for promoting independence indicated by Davies *et al* (1997), relate quite well with the principle components expressed by this study's factor analysis and model of empowerment. For example, Strategy 8, "Attempting to modify the environment to promote

independence and minimise risk," is seen as relating to component F1 of the factor analysis "Promoting patient independence," with this component being broken down further into more specific examples of empowering care (i.e. Staff familiarise patients with their surroundings. E16; Staff make sure that patients are able to perform activities by themselves. E11; and Staff make sure that patients have their call bells within reach. E01).

Although the majority of strategies indicated by Davies *et al* (1997) have parallels within the model of empowerment presented in this study, Strategy 6 "Attempting to promote patient privacy and dignity wherever possible" is not represented. This is because items relevant to this issue simply failed to achieve the objective criteria for PES inclusion (i.e. achieving Proto 1). For instance, during the *act judgement phase* of the AFA, two items existed which were relevant to the issue of privacy/dignity, i.e. "Staff promote your privacy whilst you undertake a personal activity." (Q31); and "Staff respect your request for privacy" (Q38). Unfortunately, both of these acts fell into Proto 2 following act judgement, with Q31 failing to achieve Proto 1 by the slimmest of margins. Regarding the non-inclusion of these acts, however, it will have been noted previously that Q31 has been proposed as a possible replacement for either E06 (Staff treat patients quickly after they have complained of pain) or E07 (Staff resolve patient complaints) due to the difficulties of interpreting these acts. Here, the inclusion of Q31 within the PES is given additional incentive.

Model of Disempowerment (an overview)

As with empowerment, the principle components of disempowerment also fall into two categories, primary components and subsidiary components. Altogether, three primary components were identified 1/ impeding patient collaboration in care planning; 2/ domination; and 3/ indifference to patient's needs.

Regarding the first of these components, 'impeding patient collaboration,' relevant items from the PES include the issues of staff preventing patients from making decisions about their planned care (D13), and giving patients information at a rate too fast to comprehend (D14). It will also be noted from figure 10.2, that two related subsidiary components refer to the issues of 'imposing events on

patient's (i.e. staff insisting that patients eat or drink against their wishes, D07; and moving patient's beds and lockers to different locations on the ward, also against patient's wishes, D01), and 'overriding patient's choices' (i.e. staff attending to patients without asking their permission, D04).

The second primary component of disempowerment, 'domination,' is represented by quite a large series of acts. These include acts which disregard patient's privacy (i.e. D08; D11), the use of dominant postures whilst communicating with patients (D19), and submitting patients to undesirable circumstances, such as removing food and drink from patients before they have finished (D06). Other items relate to verbal acts such as talking down to patients as though they were children (D20), using remarks which lower patient's self esteem (D18), and dismissing patient's complaints (D02).

The final primary component of disempowerment is an 'indifference to patient needs' which is joined by the subsidiary components of 'neglect' and 'withholding information.' Items relevant to the primary component include staff busying themselves when they realise patients need help (D09), being noisy at night preventing patients from sleeping (D03), responding slowly to patient's complaints of pain (D15), and disclosing information in an area where it may be overheard by other patients (D11). From the perspective of the subsidiary components of 'neglect' and 'withholding information,' the former alludes to the issue of staff failing to assist patients with tasks they cannot do (D17), and the latter to staff conducting nursing tasks without explaining their actions (D10).

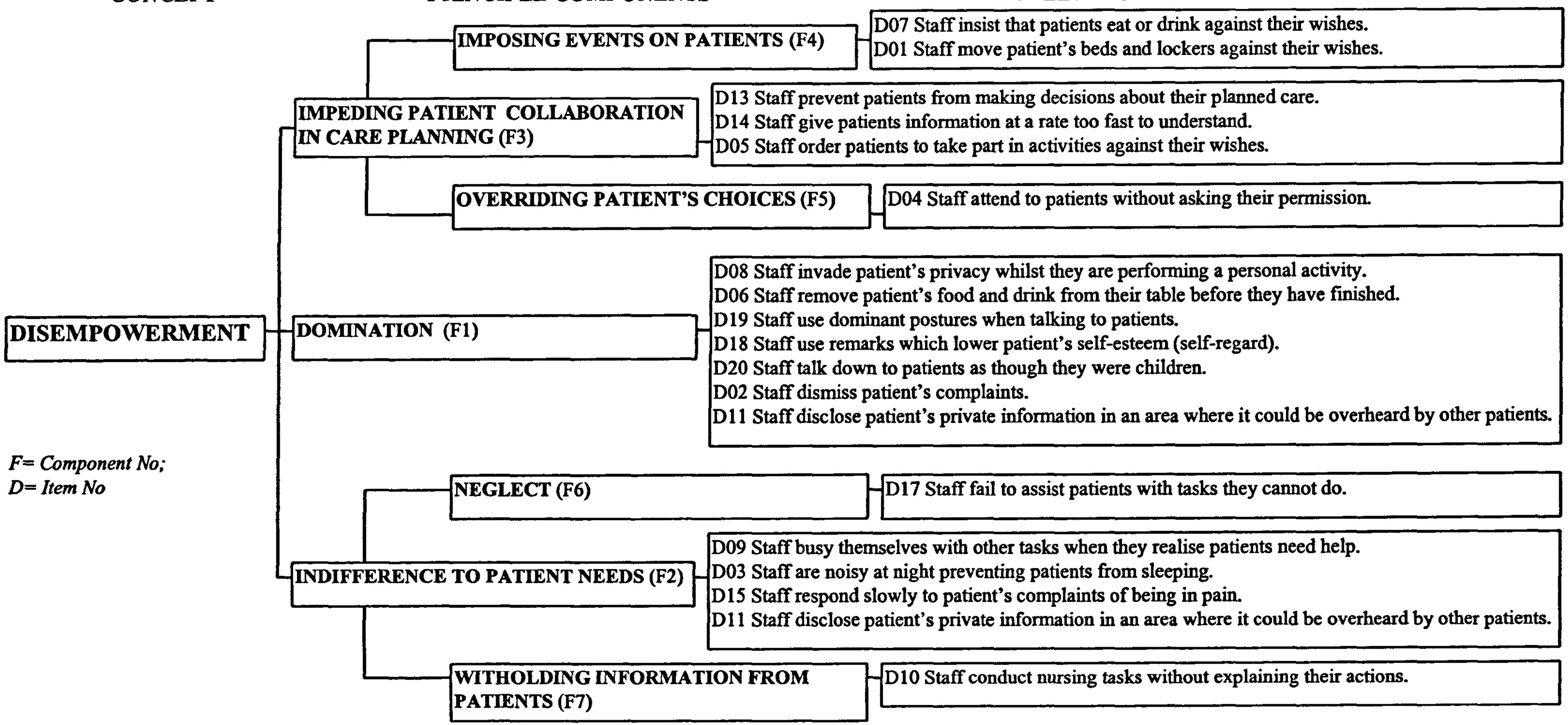


Figure 10.2 A Model of Disempowering Care

Model of Disempowerment (related literature)

In contrast to empowerment, literature on disempowerment within health care is quite scant, perhaps reflecting the taboo nature of this issue and an unwillingness to accept that sometimes health care professionals 'get it wrong.' Nevertheless, there are a number of papers providing qualitative accounts of what may be considered disempowering care (i.e. Cattermole, Jahoda & Markova, 1988; Clark & Bowling, 1990; Mountain & Bowie, 1995; Grau, Chandler & Saunders 1995; Draper, 1996; Alzheimer's Disease Society, 1997; Health Advisory Service, 1999). These accounts, when viewed in terms of individual staff acts, are strongly related to the disempowering items of the PES, examples of which are presented below with relevant PES items being shown in parenthesis:

- Forcing patients to eat and drink (Clark & Bowling, 1990), (**D07**).
- Removing food or drink from patients before they have finished (Clark & Bowling, 1990; HAS 2000, 1998), (**D06**).
- Failing to assist patients with tasks they cannot do (Clark & Bowling, 1990; HAS 2000, 1998), (**D17**).
- Reducing patient's privacy (Cattermole *et al*, 1988; Clark & Bowling, 1990; HAS 2000, 1998), (**D08, D11**).
- Ordering patients to engage in activities (Cattermole *et al*, 1988; Clark & Bowling, 1990), (**D05**).
- Refusing to listen to patient's opinions (Cattermole *et al*, 1988), (**D13**).
- Responding slowly to patient's requests for help (Grau *et al*, 1995), (**D09**).
- Dismissing patient's complaint (Grau *et al*, 1995), (**D02**).

The fact that disempowering acts extracted from the literature strongly relate to PES items, is perhaps unsurprising. After all, the literature was drawn upon as a means of securing act nominations during the initial stages of the AFA. Whilst this relationship helps to confirm the representative nature of the PES as it pertains to staff actions in the hospital environment, it does not assist in the evaluation of this study's model of disempowerment as presented in figure 10.2.

To assist in this process, the principle of 'Malignant Social Psychology' (MSP) posited by Kitwood (1990, 1997) was alluded to. MSP forms an integral part of Kitwoods' psycho-social theory of dementia, where it is argued that the social interactions between carers and patients in some hospital/institutional environments may have a "malignant" or damaging effect on older people. Using a critical incident technique, MSP has been categorised into seventeen elements illustrating the negative attitudes and actions of some carers during social interactions with dementia sufferers (see table 3.2). Consistent with the literature cited above, these elements were also found to relate to disempowering items within the PES. For instance, the element of "Infantilization: treating a patient

very patronizingly (or matronizingly) as an insensitive parent might treat a very young child" (Kitwood, 1997, p46) relates to the PES item "Staff treat patients as though they were children" (D20). However, despite the apparent relationship between MSP and disempowerment, Kitwood's failure to make the transcendent leap from individual 'act' to 'principle component,' inhibits further comparison between these concepts, thus proving unhelpful in the validation of the model of disempowerment presented in this study.

STUDY LIMITATIONS

Several issues relevant to the limitations of this exploratory phase have been amplified in previous sections of this thesis, and relate to sampling deficiencies, design problems and data collection issues. Regarding sampling deficiencies, the extent to which patient samples drawn from each study site during the administration of the PES may be considered to be representative of that site's elderly patient population is debatable. This is because the selection criteria suggested that patients should be non-cognitively impaired, a restriction which was unavoidable given the nature of the PES questionnaire. Nevertheless, on some of the wards selected, especially the elderly care rehabilitation ward, many of the patients were cognitively impaired. Therefore, in the absence of information regarding the extent to which this impaired patient group were empowered or disempowered on hospital wards, the findings from the PES may be considered limited. As a means of overcoming this problem, it is argued above that the PES could be adapted to an observational schedule.

Regarding design problems, the total PES scores for each study site were calculated by subtracting 'disempowerment sub-scale' scores (i.e. 0 to -40) from 'empowerment sub-scale' scores (i.e. 0 to +40), indicating that these two sub-scales were quantitatively equivalent. However, this procedure, which would have involved weighting all the items from the PES dependent on the findings from the 'act judgement questionnaire,' was not considered necessary. This is because the mean act judgement scores relative to items from the empowerment and disempowerment sub-scales were found to be relatively equivalent (i.e. empowerment: mean = 5.92, range = 0.60; disempowerment: mean = 5.63, range = 0.85). As such it is argued that the process of weighting PES items would add little to the

precision of the scale as a whole, but instead might lead to it becoming overly complex, thus detracting from it practicability.

A second issue relevant to design and data collection issues regards the sensitivity of the PES, and the potential for this sensitivity to be increased. This, it is believed, could be achieved by firstly increasing the number of items within the empowerment and disempowerment sub-scales, and secondly, by amending the scoring criteria. Regarding the first option, the 100 nominated acts for both empowerment and disempowerment were found to score relatively highly on the act judgement questionnaire denoting their prototypicality. Therefore, an increase in the number of items presented for each concept on the PES would be feasible. However, it must be remembered that the PES is administered to hospitalised patients who may not have the mental strength to respond to a large array of items. It would therefore seem unwise to extend the number of acts relevant to each concept much beyond the twenty acts already in existence. Regarding the second option, on the other hand, during the administration of the PES, some participants indicated that whilst they had encountered a particular act, the choice of 'sometimes' or 'often' failed to adequately reflect the low frequency of its presentation. It is therefore proposed that the three-point scale could be amended to reflect very low frequency acts by adding the category 'rarely' between 'never' and 'sometimes.'

CHAPTER ELEVEN

CONCLUSIONS

INTRODUCTION

This conclusion will commence by considering whether the study aims set out in the introduction have been met by the experimental and exploratory components of this thesis. Following this, a series of recommendations relevant to the study findings will be presented prior to considering directions for future research.

ACHIEVEMENT OF AIMS

This thesis intended to address four primary aims. Firstly, to investigate the onset of dependence in hospitalised elders from the perspective of LH theory. Secondly, to investigate the onset of independence in hospitalised elders from the perspective of LM theory. Thirdly, to investigate the alleviation of LH induced dependence in hospitalised elders from the perspective of LM theory, and finally, to develop a valid and reliable measure of disempowerment (leading to LH) and empowerment (leading to LM) in hospital environments. The following section will review the extent to which these aims have been fulfilled.

Regarding the first of these aims (the investigation of patient dependence from the perspective of LH), it was argued that the disempowering actions of hospital staff, which impede older people from asserting control over their lives, inadvertently expose patients to circumstances consistent with the development of a LH induced dependence. In fulfilling this aim, the assertion that LH is at least one determinant of extrinsic dependence affecting elderly patients has been strengthened. This claim is based on the finding that older hospitalised people previously exposed to disempowering circumstances (i.e. over-assistance during the mealtime event) developed LH effects. These effects were expressed behaviourally through a retarded incentive motivation and a decreased awareness of contingent events when they did indeed exist. As a result, patients demonstrated an increased dependence with the ADL of eating and drinking which was inadequately performed in the absence of supervision, direction or active personal assistance. Moreover, these LH effects were shown to

generalise to an alternative psychomotor task demonstrating how LH, once developed, may retard patient performance in a wide variety of circumstances.

Concerning the second aim (the investigation of patient independence from the perspective of LM theory) it was argued that the empowering actions of hospital staff, which assist patients to assert control over their lives, expose patients to circumstances consistent with the development of LM. In turn, it was proffered that LM effects should optimise independence in elderly patients within the limits of their mental and/or physical capabilities. Regarding this hypothesis, findings showed that by empowering older hospitalised people during the mealtime event (i.e. raising their expectation of control), they developed LM effects. These effects were expressed behaviourally through an enhanced incentive motivation and a increased awareness of contingent events. As a result patients demonstrated increased independence with the ADL of eating and drinking which was performed in the absence of supervision, direction or active personal assistance. However, these LM effects were not shown to generalise to an alternative psychomotor task.

Regarding the third aim (an investigation into the alleviation of LH induced dependence) it was argued that by exposing helpless patients to empowering strategies, an expectational dissonance ought to arise whereby the patient's current expectation of non-contingency is challenged by the new expectation of contingency. Theoretically, a resolution of this dissonance in the direction of LM should alleviate LH effects, once again optimising independence. Indeed, this hypothesis is born out by the experimental findings which showed that by increasing *helpless* patient's expectations of control over the mealtime task, they once again developed LM effects. As a result patients demonstrated increased independence with the ADL of eating and drinking confirming that previously induced LH effects had been alleviated. Moreover, these alleviatory effects were shown to generalise to enhance patient performance in an alternative psychomotor task, thus demonstrating how LM, once induced, may potentially alleviate LH effects in a wide variety of tasks.

These experimental findings indicated that hospital staff should adopt a more empowering and less disempowering approach to practice. Such an approach could potentially optimise patient

independence through exposing patients to circumstances consistent with the development of LM, and reduce the risk of patients developing a LH induced dependence. However, these recommendations were considered to be hollow and difficult to implement in the absence of a thorough understanding of how empowerment and disempowerment are expressed in the minutiae of care. Furthermore, with no valid means of reviewing these concepts in the natural ward setting, it was difficult to evaluate the extent to which hospital wards placed patients at risk of developing LH, or alternately facilitated LM. Consequently, the exploratory phase of this thesis aimed to develop a robust measure of these concepts from the perspective of healthcare.

In achieving this aim, the author conducted an act frequency approach to empowerment and disempowerment yielding three primary outcomes: Firstly, a list of consensually valid prototypical acts relevant to empowering and disempowering care was assembled. Secondly, a method of measuring the frequencies of these acts in hospital settings was developed (i.e. the Patient Empowerment Scale). Finally, the principle components of empowerment and disempowerment were identified and models of these concepts constructed. Through these outcomes, this thesis may be seen as relating the psychological theories of LH and LM to the domain of healthcare in such a way as to highlight their relevance to practitioners in the field of gerontology. Moreover, the Patient Empowerment Scale may be considered to be an important supplement to quality assurance methods already in existence.

RECOMMENDATIONS

1/ Hospital staff should reduce the patient's exposure to disempowering (or non-contingent) circumstances and increase their exposure to empowering (or contingent circumstances)

Findings from the experimental component of this thesis persuasively indicate that patients exposed to uncontrollable or disempowering circumstances are at risk of developing LH. This condition has the potential to retard ADL performance in the absence of supervision, direction or active personal assistance thus rendering patients dependent. Moreover, this dependence may not remain specific to the task within which LH was induced, but may generalise to affect patient performance in other activities.

LH induced dependence may be alleviated by exposing patients to controllable or empowering circumstances consistent with the development of LM. This condition has been shown to enhance ADL performance in the absence of supervision, direction, or active personal assistance thus increasing independence within the limits of a patient's psycho-physiological capabilities. Furthermore, LM effects (as with LH effects) have been shown to generalise beyond the specific task within which they were induced to enhance patient performance in other activities.

It is therefore recommended that hospital staff reduce patient's exposure to disempowering circumstances (thus preventing patients from developing LH) and increase patient's exposure to empowering circumstances (leading to the development of LM). This may be achieved by changing the attitudes of disempowering staff towards a more empowering approach to care, a circumstance which may be more easily said than done. For example, attitudes have a tendency to die hard and it may be difficult to convince a disempowering nurse that his/her codes of practice are detrimental to patients. Nevertheless, this does not preclude the possibility that carers can make genuine changes for the better, changes which would probably require an educational intervention. For instance, staff might be informed of the theoretical principles behind hospital induced dependence and the types of staff/ patient interaction which put patients at most risk. Alternately, by attending reflective groups, staff could be made more aware of the ageist beliefs or stereotypes which they hold. The assumption here is that ageism and stereotyping are instrumental in the production of disempowering behaviour, and that by making staff more aware of these attitudes, they will adopt a more empowering approach to care (Solomon 1982b). Indeed, such interventions have been found to lead to positive staff changes in a number of papers (Hickey, Rakowski, Hultsch & Fatula, 1976; Holtzman & Beck, 1978; 1979; Solomon & Vickers, 1979). Finally, feedback from the newly developed PES may not only assist hospital staff to become more aware of their collective approach to care, but also indicate constructive measures for its improvement (see recommendation 3).

Although this thesis strongly advocates empowering care, empowerment is not necessarily a panacea for all types of dependence (i.e. sick role, instrumental passivity) but instead is merely offered as a means of alleviating LH induced dependence. Even then, patients may not show signs of increased

independence, this relying very much on an individual's mindset (Gibson, 1991; Malin & Teasdale, 1991; McWilliam, Brown, Carmichael & Lehman, 1994). It is therefore recommend that carers evaluate patient's goals, aspirations, and sense of purpose within a larger life context as a means of tailoring empowering strategies to meet their individual needs (McWilliam *et al*, 1994).

It should also be noted that for some patients, the use of empowering strategies may have more negative than positive ramifications. For instance, it is argued that with increasing age, greater control over activities, circumstances, or health, may lead to the complications of stress, worry, and self blame (Averill, 1973; Brickman, Rabinowitz, Karuza, Coates, Cohn & Kidder, 1982; Rodin, 1986; Malin & Teasdale, 1991). Whilst there is little empirical evidence to support this claim, it is possible to proffer several tangible reasons why a reduced level of autonomy or control may be the preferred option for some older patients and residents. For example, some may not be used to exercising extensive control over their lives and may therefore not relish being confronted with major decisions regarding their future. Others, by embracing the 'sick role' attitude that 'doctor knows best,' may feel uncertain about making decisions relevant to a domain which they perceive themselves to know little about. Still others may find that a strict routine imposed by a hospital or nursing home provides the necessary frame of reference through which they orientate their daily lives. And finally for some, being totally 'looked after' provides a tremendous sense of comfort, a protection from the harsh reality of existence. Whether appropriate or not, the desire of some patients to relinquish their personal control is a choice which has to be respected. It may therefore be necessary for practitioners to assess the extent to which older people want autonomy over their lives if it is felt that this may lead to undue anxiety or stress.

2/ The PES will contribute to the evaluation of quality assurance relevant to the care of older hospitalised/institutionalised adults.

The HAS 2000 report (1998) and the government White Paper "Fit for the Future" (DOH, 1999c) both recommend quality assurance methods for the evaluation of elderly care. The HAS 2000 report (1998) for instance, recommend the use of their own observational measure which was adapted from the work of Dean, Proudfoot and Lindesay (1993), (discussed earlier in the literature review). This tool identifies both good and bad practice and is considered to be a useful indicator regarding the

training needs of staff. A second means of assessing the care of older people is suggested by the government's White Paper "Fit for the Future" (DOH 1999c) which outlines the required standards for residential and nursing homes. Here, it is recommended that 'the rights of individual residents,' including care relating to privacy, dignity, fulfilment, respect and choice, are evaluated through discussions (i.e. with residents, supporters, and home staff); the evaluation of relevant documentation; and casual observation by the inspecting team.

Both of these methods of quality assurance demonstrate weaknesses in their evaluation of care. Regarding the observational tool used by HAS 2000 (1998) for instance, researchers regularly experienced difficulties in seeing staff/patient interactions which often occurred behind curtains or in side rooms. There were also difficulties in hearing interactions due to the intrusion of noise from neighbouring bays (i.e. televisions or vacuum cleaners). Conversely, the more casual approach recommended by 'Fit for the Future' (DOH, 1999c) may be criticised for lacking both rigor and objectivity.

We therefore have two proposed methods of quality assurance regarding elderly care (HAS 2000, 1998; DOH 1999c), both advocated by the government, and both demonstrating weaknesses. However, this thesis would strongly argue that the PES provides a solution to some of these weaknesses. Firstly, the PES negates the need for non-participant observation, this role being assumed by patients who retrospectively evaluate the frequency of relevant acts. Subsequently, the problem of researchers being unable to see or hear staff/patient interactions is overcome. Secondly, the PES, like the observational method used by the HAS 2000 team, has the ability to identify both good and bad examples of practice. This enables the researcher to provide feedback which may potentially increase staff awareness of their collective approach to care, as well as providing a direction for improving practice. Finally, because the PES yields an overall rating regarding patient empowerment, this may be used as a baseline for future assessment. It is important to note, however, that the PES was specifically developed to measure empowering and disempowering care. Therefore, whilst such a scale is undoubtedly relevant as a quality assurance measure, its use should be combined with other

quality assurance strategies (i.e. reviewing relevant patient documentation, monitoring clinical outcomes) as a means of providing a more complete assessment of a health care.

3/ The PES will facilitate evidence based practice through feeding back results from its implementation to relevant ward staff.

The PES is offered as a means of increasing awareness of the determinants of LH and LM from the perspective of health care. For instance, by providing ward based staff with *considered* feedback from the PES, practitioners might be made more aware of their collective approach to care. This feedback might commence by providing nurses with the relevant theoretical background to the scale, specifically the relationships between empowering care and LM, and disempowering care and LH. Following this, the frequencies of individual acts from the PES might be presented. Here, empowering acts occurring *least* frequently could be highlighted as a direction for future improvement, whilst disempowering acts occurring *most* frequently could be highlighted as examples of staff/patient interactions to be avoided.

It is argued that this type of intervention will enable the researcher to make the psychological theories of LH and LM highly relevant to specific health care settings and the staff working therein, thus transcending the theory-practice gap which so often impedes the effective delivery of evidence based care (Miller, 1985; Speedy, 1989; Garbett, 1995). As such, feedback from the PES will assist hospital staff to interpret and apply knowledge based on research and development within their practice, a notion which is also highlighted by the government White Paper "Making a Difference" (DOH,1999a) as well as the HAS 2000 (1998). (NB. Findings from the PES should be disseminated to staff in groups and under conditions where they feel comfortable and unthreatened. Individual staff, even if known to be highly 'disempowering' practitioners, *should not be singled out*).

4/ Administration of the PES should be carried out by a member of staff or researcher who is independent from the ward under evaluation.

The PES should be administered by a researcher or senior member of staff who is not directly associated with a ward under evaluation. This precaution is offered as a means of reducing staff or patient biases, and to diminish potential violations of staff confidentiality. Regarding staff/patient

biases, if a member of the ward team is submitting the PES, patients may feel obliged to give a more positive image of a ward either because they do not wish to appear ungrateful, or because they fear breaches in confidentiality. Alternatively, in situations where patients are undecided as to whether an act has occurred, ward staff may inadvertently coax patients into giving a more positive answer. In this study, however, the researchers sense of detachment from the ward meant that he had less personal interest in the results of the PES, and was thus able to remain more objective in its administration and scoring. Secondly, regarding violations of staff confidentiality, during the administration of the PES in the current study most patients remained tacit with regard to identifying particularly disempowering members of staff, others, however, did not. Whilst this information was disregarded by the researcher, it may not be disregarded by senior members of ward staff who may use it in a disciplinary capacity. Regarding this issue, the PES should not be used to provide evidence against individual members of staff who may be perceived to be under-performing. Such a circumstance would only lead to staff resistance regarding the future use of the PES as an assessment tool.

FUTURE RESEARCH

The practical utilisation of research can almost never be justified on the basis of a single study, a circumstance which strongly indicates the need for replication. However, any replication of the current study should give adequate consideration to the methodological and ethical principles it employs. For example, from the perspective of methodology, the strength of this study's findings are testimony to its demonstration of LH effects prior to evaluating LH alleviation. This is important because the literature review suggests several causes of extrinsic dependence of which LH is only one (e.g. instrumental passivity, sick role). Therefore, if participants were merely submitted to LMT without previously undergoing a LHT pre-treatment, it would be difficult to say that LH had been alleviated as opposed to other forms of extrinsic dependence.

From an ethical perspective, it is vital that future researchers in this domain are aware of the potential dangers of using a non-therapeutic intervention (i.e. LHT) and take appropriate precautions where necessary. Arguably, three of the most important precautions are as follows: Firstly, the use of non-

cognitively impaired participants who are mentally capable of giving informed consent. Secondly, the use of strategies to ensure that wherever possible, LH effects once induced, are alleviated for all participants. And finally, that researchers use only positive non-contingency to induce LH thus reducing the participants risk of developing a depressed LH affect.

Altogether, the literature review suggests four potential LM inducing treatments for LH. From these, the treatment of 'providing information about the contingency of future events' (Peterson *et al*, 1993) was used as a LMT within the current study. This leaves the alternative treatments of: 1/ prompting appropriate responses (Abramson *et al*, 1978); 2/ negotiating realistic goals (Abramson *et al*, 1978); and 3/ increasing the patient's exposure to contingency (Abramson *et al*, 1978), all of which may be utilised as LMT interventions within future research. Other LM inducing interventions may be found within the items of the empowerment sub-scale of the PES.

Other issues requiring further research stem from the results of the PES. These include the negative relationship shown on some study sites between empowerment and age (indicating that the older patients were, the less likely they were to be empowered). Secondly, the positive relationship between patient functioning and overall PES score (indicating that the more functionally impaired a patient group is, the more disempowering the environment caring for them). These relationships are a cause for concern because ideally, the older and less functionally able patients are, the *more* they should be empowered. However, as these findings relate to correlational statistics, it is difficult to interpret them from the perspective of cause and effect. Therefore two questions for future research may be as follows: Does a patient's age, physical ability, or mental ability predict the level of empowering or disempowering care to which they are exposed? And if so, why?

Another issue relates to the antecedent factors that influence levels of empowering and disempowering care within hospital ward environments. Regarding this issue, this exploratory study proposes that skill mix may be one possible factor. This is based on the finding that wards with higher proportions of qualified staff seemed to perform better on the PES than wards with lower proportions of qualified staff. Indeed, it stands to reason that in circumstances where untrained staff make up the

majority of the workforce, the delivery of care will be of a generally lower standard. It is also likely that with fewer trained staff within a workforce, the delivery of this care will be largely unsupervised. This argument, however, is purely speculative and will need thorough and rigorous evaluation in the future. This will involve answering the following: Do skill mix, staff education, or clinical supervision influence levels of empowering and/or disempowering care within hospital environments? Furthermore, what other antecedent factors influence levels of empowering and disempowering care within hospital environments?

To date, the PES has only been used with non-cognitively impaired older adults, but what of its utilisation with younger age groups, or adults with cognitive impairment? Regarding younger age groups, it is feasible that the PES would provide a relatively sound measure of empowering care, although it could be argued that because the PES was developed with the older adult in mind, the items presented may be less relevant to younger patients. On the other hand, the measurement of empowering care as it pertains to cognitively impaired patients presents more of a challenge as patients may not be able to comprehend the questionnaire items. One possible solution to this would be to use the PES items within a non-participant observational schedule. Here, acts would be evaluated as to their *actual* frequency over a predetermined period, rather than using the impressionistic scale of 'never,' 'sometimes,' and 'often.' Obviously, this may render some of the items from the PES inappropriate, however, these could be replaced with more appropriate items from 'Proto 2' of the AFA. Finally, it is important to note that this scale should not be seen as a measure of empowerment for use in hospitals only, but may also be applied within other environments catering for older people (i.e. nursing homes, hospices, mental institutions etc.).

Finally, one of the principle recommendations from the exploratory study relates to the utilisation of the PES within specific ward environments and the subsequent feedback of results as a means of increasing staff awareness of their collective approach to care. This process, it is argued, is the key to transcending the theory-practice gap with regard to the application of the psychological theories of LH and LM to health care. This leads to the following research question: Does the presentation of feedback relevant to the PES increase empowering care and decrease disempowering care?

Literature Search Model for the Literature Reviews "The Theoretical and Empirical Development of Learned Helplessness" and "Learned Helplessness and People in the Institutionalised/Healthcare Setting."

THE THEORETICAL AND EMPIRICAL DEVELOPMENT OF LEARNED HELPLESSNESS (Chapter 1)

CD-ROM
PsychLIT. (1967-1999) N. V: WinSPIRS Silver Platter Information 1999.
CINAHL. (1967-1999). N. V: WinSPIRS Silver Platter Information, 1999.
Medline. (1967-1999). N. V: WinSPIRS Silver Platter Information 1999.
Main Search Terms:- (Keywords in *italics*).
Learned Helplessness/ Animal/ Human/ Original/ Reformulated/ Therapy/ Reactance/ Review/ Behaviour/ Behavior/ *Motivation/ Depression/* Elderly/ Patient/ Older/ Aging/ Ageing/ *Seligman/* Peterson/ Mikulincer.

INTERNET
Netscape Communicator version 4.03/ Infoseek search engine.
Main Search Terms:-
Learned Helplessness/ Seligman.
Learned Helplessness Forum:- (*http://www.psych.upenn.edu/~fresco/helplessness.html*).
Internet searches:- (Search terms as per CD-ROM).
BIDS ISI (JISC) Social Sciences Search (1981-1999) (*http://www.bids.ac.uk/*)
Index to Theses of Great Britain and Ireland. (1970-1998) Aslib. via University of Exeter Library. (*http://www.ex.ac.uk/~ijtilised/lib/datasets/thesis.html*).

KEY TEXTS
Seligman, M. E. P. *Helplessness.* San Francisco: Freeman, 1975.
Garber, J., and Seligman, M. E. P. *Human Helplessness: Theory and Applications.* New York, Oxford: Oxford University Press, 1993.
Peterson, C., Maier, S. F., and Seligman, M. E. P. *Learned Helplessness: A Theory for the Age of Personal Control.* New York, Oxford: Oxford University Press, 1993.
Mikulincer, M. *Human Learned Helplessness: A Coping Perspective.* New York, London: Plenum Press, 1994.

LEARNED HELPLESSNESS AND OLDER PEOPLE IN THE INSTITUTIONAL/ HEALTHCARE SETTING (Chapter 2)

CD-ROM
CINAHL. (1967-1999). N. V: WinSPIRS Silver Platter Information, 1999.
Medline. (1967-1999). N. V: WinSPIRS Silver Platter Information, 1999.
PsychLIT. (1967-1999) N. V: WinSPIRS Silver Platter Information, 1999.
AgeInfo. (1990-1998). London: Centre for Policy on Ageing, 1998
Main Search Terms:- (Keywords in *italics*).
Learned Helplessness/ Learned Mastery/ Elderly/ Patient/ Older/ Aging/ Ageing/ Hospital/ Institution/ *Dependence/ Independence/ Empowerment/ Disempowerment/* Treatment.

INTERNET
Netscape Communicator version 4.03/ Infoseek search engine.
Main Search Terms:-
Independence/ Dependence/ Empowerment/ Disempowerment/ Elder Abuse/ Department of Health/ British Gerontological Society.
Internet Searches:- (Search terms as per CD-ROM).
BIDS ISI (JISC) Social Sciences Search (1981-1999) (*http://www.bids.ac.uk/*)
Cochrane Library Database. (1967-1999) Update Software (*http://www.update Software.com/clibhome/clib.htm*) .
Department of Health (UK) (1990-1999). (*http://www.open.gov.uk/doh/dhhome.htm*)
National Aging Information Centre, Washington DC (1994-1999) (*http://www.ageinfo.org/neta/agedetal.html*).
Geronline. Netherlands Institute of Gerontology (1993-1999). (*http://194.171.25.200/geronlib/mysqlzoek.cqiT=E*)

KEY TEXTS
Baltes, M. M. *The Many Faces if Dependence in Old Age.* Cambridge. Cambridge University Press. 1996.
Kitwood, T. *Dementia Reconsidered.* Buckingham, Philadelphia: Open University Press. 1997.

Oxford Centre for Health Care
Research & Development

Staff information letter

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Professor Helen Bartlett BA MSc PhD RGN RHV
Director

Dear staff,

RE: Research being conducted on your ward.

I am currently undertaking a study into Learned Mastery and Learned Helplessness as part of a research degree in Gerontology at Oxford Brookes University. I am hoping that some of this research will be conducted on your ward, therefore it is important that you are aware of what it entails. The study is being conducted to find out if people's mealtime responses are different depending on whether they have previously been exposed to either controllable or uncontrollable conditions. All interventions and observations will be conducted under near laboratory conditions and will not include data collection from ward staff. Subject to informed consent, a sample of older hospitalised people who are non-cognitively impaired and over the age of 65 will be used in the research. If consent is given, I will arrange up to two days when the research can be conducted. The research will take place during mealtimes only (i.e. breakfast, lunch, and dinner). During the study, the food eaten by the patients will be the same as the other patients on the ward, however, unlike the other patients, a researcher will administer the food rather than a nurse. Interventions and/or observations will last up to 30 minutes.

The nurses contribution
1/ I may ask you to nominate suitable candidates in the unit (i.e. Older people 65+ who are non-cognitively impaired, independent during mealtimes).
2/ Having nominated suitable candidates I would ask you to introduce me to them.
3/ I will need to check with you to make sure that the patient is well enough to participate on the day of the research, and ensure that the timing of the intervention is convenient for you. (I would request that the patient is not disturbed during interventions or tests as this could affect the results), *unless an emergency*.

All information gained throughout the study will be handled in the strictest of confidence, and in accordance with the data protection act. The results from the study would only be known to the researcher. Finally, if you have any questions or problems, please contact me on Tel 01865 485293.

Regards
Mark Faulkner RGN

Appendix 3a STPLAN Power Calculation of Sample Size for Pair-wise Comparison of Learned Helplessness Training and Control Groups *(Procedure 1).*

Power	Group	Sample Size (n=x)		
		IR	TT	OAT
0.95	LHT	26	40	17
	CONT	43	40	29
0.90	LHT	21	33	16
	CONT	36	32	28
0.80	LHT	16	25	13
	CONT	27	24	21
0.70	LHT	13	20	10
	CONT	22	20	17

Variables:- IR= Instrumental responses (in secs); TT= Time taken to initiate instrumental responses (in secs); OAT = Object Assembly Task score

Groups:- LHT= Learned Helplessness Training; CONT= Control

▒ *= Adopted power with related sample sizes in this study.*

Appendix 3b STPLAN Power Calculation of Sample Size for Pair-wise Comparison of Learned Mastery Training and Control Groups *(Procedure 1).*

Power	Group	Sample Size (n=x)		
		IR	TT	OAT
0.95	LMT	35	9	102
	CONT	43	55	109
0.90	LMT	29	8	82
	CONT	35	45	89
0.80	LMT	22	6	62
	CONT	26	34	66
0.70	LMT	18	5	49
	CONT	21	27	53

Variables:- IR= Instrumental responses (in secs); TT= Time taken to initiate instrumental responses (in secs); OAT = Object Assembly Task score

Groups:- LMT= Learned Mastery Training; CONT= Control

▒ *= Adopted power with related sample sizes in this study.*

Appendix 3c STPLAN Power Calculation of Sample Size for Pair-wise Comparison of Learned Helplessness Training and Learned Mastery Training *(Procedure 1)*.

Power	Group	Sample Size (n=x)		
		IR	TT	OAT
0.95	LHT	7	13	9
	LMT	9	3	13
0.90	LHT	5	13	7
	LMT	8	3	11
0.80	LHT	5	13	6
	LMT	6	3	9
0.70	LHT	4	13	5
	LMT	6	3	7

Variables:- IR= Instrumental responses (in secs); TT= Time taken to initiate instrumental responses (in secs); OAT = Object Assembly Task score

Groups:- LHT= Learned Helplessness Training; LMT= Learned Mastery Training

= *Adopted power with related sample sizes in this study.*

Appendix 3d STPLAN Power Calculation of Sample Size for Pair-wise Comparison of Learned Mastery Training and Control Groups *(Procedure 2)*.

Power	Group	Sample Size (n=x)		
		IRC	TTC	OATC
0.95	LMT	10	29	10
	CONT	12	19	12
0.90	LMT	8	23	8
	CONT	11	16	11
0.80	LMT	7	17	7
	CONT	8	12	8
0.70	LMT	6	15	6
	CONT	7	10	7

Variables:- IRC= Pre & Post-test changes in instrumental responses (in secs); TTC= Pre & Post-test changes in time taken to initiate instrumental responses (in secs); OATC = Pre & Post-test changes in Object Assembly Task score.

Groups:- LMT= Learned Mastery Training; CONT= Control

= *Adopted power with related sample sizes in this study.*

APPENDIX 4

Randomisation Table (Procedures 1 and 2)

Subject #	Group	Subject #	Group	Subject #	Group	Subject #	Group	Subject #	Group	Subject #	Group
1	1 a	26	3	51	2	76	2	101	1 a	126	2
2	2	27	2	52	2	77	2	102	2	127	1 a
3	3	28	3	53	3	78	1 b	103	2	128	2
4	1 a	29	1 a	54	2	79	2	104	1 b	129	2
5	2	30	2	55	3	80	2	105	2	130	2
6	3	31	2	56	2	81	2	106	1 b	131	3
7	2	32	3	57	1 a	82	3	107	3	132	1 b
8	3	33	1 a	58	1 b	83	1 b	108	1 b	133	2
9	1 a	34	2	59	1 b	84	1 b	109	2	134	3
10	3	35	2	60	3	85	2	110	1 a	135	2
11	2	36	2	61	2	86	2	111	2	136	2
12	2	37	1 b	62	2	87	1 b	112	3	137	1 b
13	2	38	3	63	1 a	88	2	113	2	138	2
14	1 b	39	3	64	2	89	2	114	2	139	2
15	2	40	1 b	65	1 a	90	2	115	1 a	140	3
16	3	41	2	66	2	91	1 a	116	1 b	141	3
17	1 a	42	3	67	3	92	3	117	3	142	2
18	2	43	1 b	68	3	93	2	118	1 a	143	2
19	2	44	2	69	2	94	3	119	2	144	2
20	1 b	45	2	70	2	95	3	120	3	145	1 b
21	1 b	46	1 b	71	3	96	3	121	2	146	2
22	2	47	3	72	3	97	3	122	3	147	1 a
23	3	48	1 a	73	2	98	1 b	123	2	148	2
24	1 b	49	1 b	74	1 a	99	1 b	124	2	149	1 a
25	1 a	50	1 b	75	3	100	2	125	2	150	1 b

Numbers relate to groups from Procedure 1:- 1= Learned Helplessness Training; 2= Control; 3= Learned Mastery Training. Letters 'a' and 'b' relate to groups from Procedure 2:- a= Control; b= Learned Mastery Training.

Oxford Radcliffe HOSPITALS

NURSING & ALLIED PROFESSIONS
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Our Ref. LC/LW/Ack/N97.065

10 December 1997

Mr Mark Faulkner
Oxford Centre of Health Care Research and Development
Oxford Brookes University
44 London Road
Oxford

Dear Mr Faulkner

Re: NAPREC N97.065 - Optimal Functioning in Dementia and the Reversal of Learned Helplessness

Your application has been given the above reference number, and it helps us enormously if you quote your reference number on correspondence or when you make telephone enquiries.

Your application will be discussed at the next meeting of the Committee on Friday, 12th December 1997, and we will write to you shortly afterwards.

Yours sincerely

L. Walter

Liz Walter
Assistant Administrator
Nursing & Allied Professions Research Ethics Committee

WTA 436

Oxford Radcliffe HOSPITALS

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Our Ref. LC/LW/Ack/N97.065

16th December 1997

Mr Mark Faulkner
Oxford Centre of Health Care Research and Development
Oxford Brookes University
44 London Road
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Dear Mr Faulkner

Re: NAPREC N97.065 - Optimal Functioning in Dementia and the Reversal of Learned Helplessness

Thank you for your recent application to the Nursing and Allied Professions Research Ethics Committee (NAPREC) your application was considered at the December meeting and the following points were raised.

1. The patient information letter requires some amendments, please find attached an annotated version of your letter. I hope that this does not appear discourteous - it is a quick way of letting you know the opinions of Committee members. Could you please incorporate the suggested changes (or replace the letter along the lines we have proposed) and let me have a final version?

2. The Committee felt that the use of the phrase 'older people with dementia' was preferable to the term 'sufferers'.

3. The Committee felt that the use of the video camera and the proposed procedure at meal time might affect the performance of participants in the research. We realise that this may be unavoidable, but do you have any views about this?

Once I have received a satisfactory response to the above queries I will be happy to give Chairman's approval.

Yours sincerely

Mr Lindsey Coombes
Chair
Nursing & Allied Professions Research Ethics Committee

WTA 435

APPENDIX 5c

Research & Development

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Professor Helen Bartlett BA MSc PhD RGN RHV
Director

7th January 1998

Mr Mark Faulkner
Research student
OCHRAD
School of Healthcare
Oxford Brookes University
44 London Road
Oxford OX3 7PD

Dear Mr Coombes,

Re: NAPREC N97.065 - Optimal Function in Dementia and the Reversal of Learned Helplessness

Thank you for your recent letter (LC/LW/Ack/N97.065) outlining the views of the ethics committee regarding the above research proposal. If you remember, there were three points raised, and I will address each of these points in turn.

1/ The patient information letter was found to require a number of small changes, (suggestions were annotated on the original draft). These changes have now been incorporated, as proposed, into the final version of the letter, which is enclosed.

2/ The committee felt that the use of the phrase "older people with dementia" was preferable to the term "sufferers." This, I felt, was a valid comment, and as such, this new description will be incorporated into the study.

3/ The committee felt that the use of the video camera and the proposed procedure at mealtimes might affect the performance of participants in the research.

Video Camera affects
Behavioural effects resulting from the procedure of observation, have been noted for many years and are termed "reactivity." Having discussed this issue with my supervisor (Prof Helen Bartlett, Head of OCHRAD), it was decided that the use of a video camera to observe behaviour would actually reduce observational reactivity rather than increase it. This view is backed up by research, for instance Wiemann (1981) assessed the potential reactivity of videotaping procedures in a study of conversational behaviour with 158 undergraduates. No significant differences in the behavioural indices of relaxation/anxiety or responsiveness due to obvious video recording procedures were found. The findings of Wiemann (1981) and others (see Carpenter & Merkel, 1988) have prompted many researchers to use video observation for the very purpose of overcoming the "constraints of laboratory situations and reactivity to proximal observers" (Pepler & Craig, 1995, p548).

Procedure affects
The issue of procedural affects on participant performance has been discussed with my advisor Mr Chris Allen (Senior Clinical Psychologist). Mr Allen felt that where participants were used to a different regime of food administration to that of the proposed research, there was always going to be a risk of performance affects. The solution to this would be to redesign (where necessary) the food administration procedures of the research to conform with the most commonly used method in the research environments, then to exclude environments whose procedures do not conform. Design changes are likely to be small, for instance, the use or non use of a tray.

I hope that these changes meet with your approval, however if you have any further requests please do not hesitate to contact me on (01865) 485293.

Yours sincerely

Mr Mark Faulkner
Research Student (OCHRAD)

Oxford Radcliffe HOSPITALS

NURSING & ALLIED PROFESSIONS
RESEARCH ETHICS COMMITTEE
THE JOHN RADCLIFFE

Manor House
Headley Way, Headington
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Tel: 01865 222692/222547
Fax: 01865 222699

Our Ref. LC/EB

21st January 1998

Mr Mark Faulkner
Oxford Centre for Health Care
Research and Development
Oxford Brookes University
44 London Road
Oxford OX3 7PD

Dear Mr. Faulkner

Re: NAPREC 97.065 Optimal Function in Dementia and the Reversal of Learned Helplessness

Thank you for letting me have the details on this project. I am happy to confirm ethical approval, and wish you every success with the study. I would be very grateful if you could send me a copy of any publication which may arise from this study.

You should inform NAPREC of any adverse reactions. In addition, if the investigators do not follow the protocol, or have protocol changes, but fail to inform NAPREC , then the Ethics Committee approval will be withdrawn and will no longer be binding.

Could I mention that NHS and University indemnity is now contingent upon NAPREC approval.

Yours sincerely

Lindsey Coombes
Chairman
Nursing and Allied Professions Research Ethics Committee

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Professor Helen Bartlett BA MSc PhD RGN RHV
Director

Dear Lindsey, 20/4/98

RE: NAPREC 97.065 Optimal functioning in dementia and the reversal of learned helplessness

I am writing to inform you that subject to my completion of a detailed literature review, I have made two changes to my proposed research. These changes are outlined below.

1/ Study Sample: Will be changed from older people with dementia to non-cognitively impaired older people. This change was due to there being insufficient literature on LH and LH reversal in the elderly per se. Thus researching the theory with dementia sufferers was a step too far ahead (please see the conceptual framework, especially the grey boxes).

2/ The addition of a psychomotor task: Here the 'Object Assembly' task of the WAIS-R will be conducted with all participants. This change has been introduced to assess if LH effects generalise to alternative tasks (see conceptual framework under "+ve events").

These changes have been discussed with my supervisor Prof. H. Bartlett.

The change of study sample has affected some of the ethical considerations, which were formally geared for the pursuit of research with a mentally incapacitated sample. Other aspects of the study remain unchanged. Please find enclosed an amended version of the ethics proposal.

Yours sincerely,

Mark Faulkner
RGN BA(Hons) MSc MBPsS

Oxford Radcliffe HOSPITAL

NURSING & ALLIED PROFESSIONS
RESEARCH ETHICS COMMITTEE

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Our Ref. LC/LAB/N97065

22nd April 1998

Mr Mark Faulkner
Oxford Centre of Health Care
Research and Development
Oxford Brookes University
44 London Road
Oxford OX3 7PD

Dear Mr Faulkner

Re: NAPREC N97.065 - Optimal Functioning in Dementia and the Reversal of Learned Helplessness

Thank you for your recent letter asking for a modification to the submitted protocol dated 20th April 1998. There seems to be no problem with this, and I am happy to give you Chairman's approval for this addendum.

You should inform NAPREC of any adverse effects or events. In addition, if the investigators do not follow the protocol, or have protocol changes, but fail to inform NAPREC, then the Ethics Committee approval will be withdrawn and will no longer be binding.

Best wishes for your continuing studies.

Yours sincerely

Alison Glacies

Mr Lindsey Coombes
Chairman
Nursing and Allied Professions Research Ethics Committee

Chairperson: Mr Lindsey Coombes

WTA 435

APPENDIX 5g

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Professor Helen Bartlett BA MSc PhD RGN RHV
Director

7th Oct 1998

Dear Lindsay,

RE: Changes to ethics proposal # 97.065 Optimal Functioning in Older Hospitalised People and the Reversal of Learned Helplessness

The assessment of hospital wards using the Patient Empowerment Scale (PES) will no longer be conducted using observation. Instead the 10 highest scoring acts for both empowerment and *disempowerment* (Act Frequency Technique) will be randomly placed in an inventory which will be administered to older hospitalised people themselves. These participants will be asked to judge empowering and disempowering acts with regards to the extent to which they have encountered them over the last week. This will be undertaken using a Likert Scale 1-7 (where '1' = never; '7' = often). Two dummy acts will be included at the start of the inventory to counter reactivity effects. Information regarding sex, age and MMSE will also be gathered and correlational analysis undertaken. The inventory will be administered to *non* cognitively impaired older hospitalised people aged 65+ in the current study sites. Number of participants will be between 20-40 per site. Split-half and test-retest reliability measures will be conducted as well as factor analysis. This will require a new invitation letter to participants which is enclosed. Please advise me whether I can continue with my research in view of this minor change.

Yours sincerely,

Mark Faulkner
Research student
OCHRAD
School of Healthcare
OBU

Appendix 3h

Oxford Radcliffe HOSPITALS

APPLIED & QUALITATIVE
(Formerly NAPREC)
RESEARCH ETHICS COMMITTEE

THE JOHN RADCLIFFE

Manor House
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Tel: 01865 222691/222758
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Our Ref. LC/LAB/N97.065

15th October 1998

Mr Mark Faulkner
Oxford Centre of Health Care
Research and Development
Oxford Brookes University
44 London Road
Oxford OX3 7PD

Dear Mark

RE: NAPREC N97.065 - Optimal functioning in Dementia and the Reversal of Learned Helplessness

Thank you for your letter of 7th October 1998 asking for modification to the submitted protocol (amendment number 2 dated 7th October)

The changes you suggest seem entirely reasonable but your invitation letter would seem to be unnecessarily complex both in language content and structure. Please could you resubmit the revised invitation letter making the language much simpler; a larger type face would also be more user-friendly for the older adult participant.

Please find attached an annotated version of your letter. I hope this does not appear to be discourteous - it is a quick way of letting you know the options of Committee members. Could you please incorporate the suggested changes (or replace the letter along the lines we have proposed) and let me have a final version. Please could you also submit the proposed questionnaire.

I will be happy to consider ethical approval for these modifications once I have received this information.

May we remind you that AQREC final approval is contingent on the appropriate Indemnity.

Yours sincerely

Dr Jenny Butler
Vice Chair
Applied and Qualitative Research Ethics Committee

Research & Development

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Professor Helen Bartlett BA MSc PhD RGN RHV
Director

18th Jan 1999

Dear Jenny,

RE Optimal Functioning in Older Hospitalised People and the Reversal of Learned Helplessness. Ref #97 065

Thanks for your advice regarding my Act Frequency assessment. I have now altered some of the wording and restructured some of the sentences. Using Fogg's Readability Test the original survey draft was found to have a reading age of 12.2 years (using 4 x 100 word sections). However, since its revision, the survey now has a reading age of 10.73. I have found this test to be extremely useful in reviewing the survey items, and thought that it would be worth your while placing it in the Ethics Committee guidelines due for review in April. This would be especially useful for researchers who have little experience in reviewing text for submission to patients (such as myself) and could lead to better proposal submissions. Wycombe Local Research Ethics Committee publish the FOGG Readability Test as part of their own guidelines, a copy of which is enclosed.

In the mean time may I thank you once again for your pertinent and constructive advice, and if you find that any other changes are necessary please let me know.

Look forward to your response,

Yours sincerely,

Mark Faulkner
OCHRAD

Oxford Radcliffe HOSPITAL

APPLIED & QUALITATIVE
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Our Ref. LC/LAB/N97.065

25th January 1999

Mr Mark Faulkner
Oxford Centre of Health Care
Research and Development
Oxford Brookes University
44 London Road
Oxford OX3 7PD

Dear Mr Faulkner Mark

RE: NAPREC N97.065 - Optimal functioning in Dementia and the Reversal of Learned Helplessness

Thank you for your letter dated 18th January 1999 enclosing your modified invitation letter. There seems to be no problem with this, and I am happy to give you Chair's approval for this addendum.

You should inform AQREC of any adverse effects or events. In addition, if the investigators do not follow the protocol, or have protocol changes, but fail to inform AQREC, then the Ethics Committee approval will be withdrawn and will no longer be binding.

Thank you also for giving me details of the FOGG Readability Test. We do revise our guidance notes periodically and will consider including such advice in the future although, interestingly enough, text that has a low FOGG score can still emerge as complex or incomprehensible to the reader. So the system is not without its faults! I am grateful to you for taking the time to forward the information to us though.

Best wishes for your continuing studies.

Yours sincerely

Jenny

Dr Jenny Butler
Chair
Applied and Qualitative Research Ethics committee

WHA 436

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Professor Helen Bartlett BA MSc PhD RGN RHV
Director

Dear X,

RE: Mealtime Related Responses.

I am asking you if you would agree to take part in a study which involves the assessment of your responses during mealtimes. I am undertaking this study to find out if people's mealtime responses are different depending on how the meal is presented.

If you agree, I would arrange *one mealtime/ three mealtimes/ four mealtimes/ six mealtimes* at your convenience, when the research can take place. These mealtimes might include breakfast, lunch, and supper. During the study, you would receive the food that you ordered on the hospital menu, similar to the other patients on the ward. However, unlike the other patients, a researcher would bring your meal tray rather than a nurse. You would also be aware of an unmanned video camera set up beside you, which would automatically record your mealtime responses during each meal. During these observations, (lasting approximately 20 minutes), I would request that you have no visitors, as this could affect some of the information gathered. As well as the observation of meals, the researcher would conduct an object assembly task. This task would assess dexterity and space relations and take no longer than 15 minutes. At the end of the research a full debriefing would be given. All information gained throughout the study will be handled in the strictest of confidence, and in accordance with the data protection act.

You are free to decide not to take part in this study, and you may withdraw at any time without affecting your normal care in any way. I suggest that you keep this letter and show it to anyone concerned with your care. If you have any questions or problems, please contact me (or ask a relative to contact me). My telephone number is 01865 485293.

Yours sincerely,

Mark Faulkner. RGN.

Nursing and Allied Professional Research Ethics Committee Number _____

Any pages, tables, figures or photographs, missing from this digital copy, have been excluded at the request of the university.

APPENDIX 15

Procedure 1 Means, Standard Deviations, and Kolmogorov-Smirnov Tests

Variable	Group	Sample Size	Mean	SD	K-S (z)	Significance p< x
Age	LHT	27	77.26	7.60		
	CONT	35	78.94	6.50	0.60	0.87
	LMT	22	79.68	7.71		
MMSE	LHT	27	25.89	2.30		
	CONT	35	25.80	2.49	1.03	0.24
	LMT	22	25.36	2.08		
TT	LHT	27	27.93	24.18		
	CONT	35	10.49	17.22	1.81	0.00
	LMT	22	3.14	3.54		
IR	LHT	27	16.63	15.88		
	CONT	35	32.86	20.67	0.72	0.67
	LMT	22	47.27	15.31		
ER	LHT	27	6.63	13.30		
	CONT	35	4.49	11.59	2.14	0.00
	LMT	22	9.14	13.96		
P	LHT	27	35.07	18.84		
	CONT	35	22.11	19.65	0.82	0.51
	LMT	22	3.14	4.27		
OT	LHT	27	1.67	3.85		
	CONT	35	0.54	1.92	2.94	0.00
	LMT	22	0.45	1.92		
OAT	LHT	27	9.07	6.16		
	CONT	35	14.83	7.41	0.50	0.96
	LMT	22	16.18	6.61		

KEY: MMSE= Mini Mental State Examination score; TT= Time taken to engage in instrumental responses; IR= Overall time engaged in instrumental responses during test trial 1; ER= Overall time engaged in exploratory responses during test trial 1; P= Overall time passive during test trial 1; OT= Overall time engaged in other responses non-meal related during test trial 1; OAT= Object Assembly Task Score; LHT= Learned Helplessness Training Group; CONT= Control Group; LMT= Learned Mastery Training Group. K-S= Kolmogorov-Smirnov test.

APPENDIX 16

Procedure 2 Means and Standard Deviations.

Variable	Group	Sample Size	Mean	SD
Age	CONT	17	77.12	7.93
	LMT	18	79.17	6.68
MMSE	CONT	17	26.29	2.34
	LMT	18	25.17	2.09
TTC	CONT	17	-6.53	17.78
	LMT	18	-26.67	22.64
IRC	CONT	17	2.41	18.93
	LMT	18	37.17	16.74
ERC	CONT	17	-3.47	24.19
	LMT	18	-5.56	10.16
PC	CONT	17	-2.24	21.63
	LMT	18	-30.33	19.88
OTC	CONT	17	3.18	12.01
	LMT	18	-1.28	3.72
OATC	CONT	17	1.14	0.61
	LMT	18	0.67	1.24

KEY: MMSE= Mini Mental State Examination score; TTC= Changes in time taken to engage in instrumental responses between test trials 1&2; IRC= Changes in overall time engaged in instrumental responses between test trials 1&2; ERC= Changes in overall time engaged in exploratory responses between test trials 1&2; PC= Changes in overall time passive between test trials 1&2; OTC= Changes in overall time engaged in other responses, non-meal related, between test trials 1& 2; OATC= Changes in Object Assembly Task scores between test trails 1 & 2; CONT= Control Group; LMT= Learned Mastery Training Group.

APPENDIX 17

Ward profile

Ward site Area 1 Speciality Rehabilitation Age range 60+

Number of beds 26 In use today 23

Nursing staff:-

1/ Number of nursing teams 2

2/ Number of staff per nursing team

AM 3 (+ 2 ward assistants)
PM 2.5 (+ 1 ward assistant)
Nocté 1.5

NB. Ward assistants are less qualifi
that HCAs and help with bed makin
filling in menu cards, serving meals
and other housekeeping tasks.

3/ Skill mix within each nursing team

1/ (Sr. SN) 1F (SN) 1E (SN) 3D (HCA) 3A
2/ (Sr. SN) 1F (SN) 1E (SN) 3D (HCA) 3A

4/ Number of patients per nursing team 13 + 13 = 26 Overall staff patient ratio (AM = 3/13 = 0.23; PM = 2.5/ 13 = 0.19; Nocté 1.5/13 = 0.11)

5/ Organisation of care (primary nursing/ team nursing) Team Nursing

6/ Nursing model (if used) Roper (ADL) For Assessment, Goal setting, Care planning.

7/ Number of students attached to the ward 5 (up to two per shift) - Supernumerary

Medical staff:-

1/ Number of medical staff attached to the ward

SHO 2
Reg -
SR 2
Con 2

2/ Number of ward rounds per week per patient
= *5 (SHO; Named nurse/ supervising nurse)*
= *1 (Consultant; SHO; Reg; Named nurse/ supervising nurse)*
= *1 (SHO; Reg; Named nurse/ supervising nurse)*

Other staff:-

1/ Number of patients seen by occupational therapy 26

2/ Number of patients seen by physiotherapy 26

3/ Number of patients seen by a dietician 10

4/ Number of patients seen by a chiropodist 2

5/ Other hospital staff whom patients may encounter:- SLT (10pts); SW (20pts); Domestic x1 (26pts); Phlebotomist (26pts); Ward assistants (26); Porters; Ward clerk; Students (NVQ, Medical).

6/ Special activities experienced by patients and number of patients who attend (i.e. relaxation groups)

a/ Social visitors (visit patient to chat)/ up to 26 patients
b/ Pat dogs (animals for the patients to stroke)/ up to 26 patients

Snapshot Barthel Index AREA 1

(Number of ward patients falling into each category)

Bowels
0= Incontinent (or needs to be given an enema) //___
1= Occasional accident (once a week) //___
2= Continent //___

Bladder
0= Incontinent, or catheterised and unable manage. //___
1= Occasional accident (max. once per 24 hours) //___
2= Continent (for over 7 days) //___

Grooming
0= Needs help with personal care //___
1= Independent face/hair/ teeth/shaving //___

Toilet use
0= Dependent //___
1= Needs some help, but can do something alone //___
2= Independent //___

Feeding
0= Unable //___
1= Needs help cutting, spreading butter etc. //___
2= Independent. //___

Transfer (from bed to chair and back)
0= Unable - no sitting balance //___
1= Major help (one or two people, physical), can sit //___
2= Minor help (verbal or physical) //___
3= Independent //___

Mobility
0= Immobile //___
1= Wheelchair independent including corners etc. //___
2= Walks with help of one person (verbal or physical) //___
3= Independent //___

Dressing
0= Dependent //___
1= Needs help but can do about half unaided //___
2= Independent (including buttons, zips, laces, etc.) //___

Orientation
0= Constantly disorientated requiring major supervision (persistent wandering) // 9 x 0 = 0
1= Occasionally disorientated requiring minor supervision (looses way to bed/ toilet) // 7 x 1 = 7
2= Fully orientated // 7 x 2 = 14

Bathing
0= Dependent // 23 x 0 = 0
1= Independent // 0 x 1 = 0

$\Sigma = 181 + 21 = 202$

$\Rightarrow 202 + 23 =$ mean **8.78** (out of 20)

Barthel regularly updated by the nursing for Bowels, Bladder, Grooming, Toilet use, Feeding, Transfer, Mobility, and Dressing, yielding a score out of 17 for all patients. Data was therefore only gathered for the two remaining categories of Orientation and Bathing yielding a series of total scores out of 20. Total scores were then summed and divided by the number of patients on the ward (n=23) yielding the mean score for the ward at this time.

Considered to be a fair representation of patient dependency on the ward

Ward profile

Includes bronchoscopys and other day cases

Ward site Area 2 Speciality Chest I (medical) Age range 18+

Number of beds 16 In use today 16

Nursing staff:-

1/ Number of nursing teams 2

2/ Number of staff per nursing team AM 1.5
PM 1.5
Nocté 1

3/ Skill mix within each nursing team

1/ (Sr. SN) 1F (SN) 3E (SN) 3D (HCA) 2A
2/ (Sr. SN) 1F (SN) 3E (SN) 3D (HCA) 2A

4/ Number of patients per nursing team 8 + 8 = 16 Overall staff patient ratio (AM = 3/16 = 0.18; PM = 3/16 = 0.18; Nocté = 2/16 = 0.12)

5/ Organisation of care (primary nursing/ team nursing) Team Nursing

6/ Nursing model (if used) Roper (ADL) For Assessment, Goal setting, Care planning.

7/ Number of students attached to the ward 4 - Supernumerary Agency use:- 1 trained per shift

Medical staff:-

1/ Number of medical staff attached to the ward

SHO 3
Reg 1
SR 1.4
Con 4

2/ Number of ward rounds per week per patient = 2

Other staff:-

1/ Number of patients seen by occupational therapy 5

2/ Number of patients seen by physiotherapy 10

3/ Number of patients seen by a dietician 8

4/ Number of patients seen by a chiropodist 1

5/ Other hospital staff whom patients may encounter:- SLT (1pts); SW (8pts); Domestic x1 (16pts); Phlebotomist (16pts); Porters; Ward clerk; Students (Nursing, Medical).

6/ Special activities experienced by patients and number of patients who attend (i.e. relaxation groups)

OT therapy groups (to help people breath). N=6

APPENDIX 17 (cont)

Snapshot Barthel Index AREA 2

(Number of ward patients falling into each category)

Bowels	
0= Incontinent (or needs to be given an enema)	//2*0 = 0
1= Occasional accident (once a week)	//
2= Continent	//14*2 = 28
Bladder	
0= Incontinent, or catheterised and unable manage.	//1*0 =0
1= Occasional accident (max. once per 24 hours)	//1*1 = 1
2= Continent (for over 7 days)	//14*2 =28
Grooming	
0= Needs help with personal care	//8*0 = 0
1= Independent face/hair/ teeth/shaving	//8*1 = 8
Toilet use	
0= Dependent	//3*0 =0
1= Needs some help, but can do something alone	//4*1 =4
2= Independent	//9*2 =18
Feeding	
0= Unable	//0*0 = 0
1= Needs help cutting, spreading butter etc.	//3*1 = 3
2= Independent.	//13*2 =26
Transfer (from bed to chair and back)	
0= Unable - no sitting balance	//0*0 =0
1= Major help (one or two people, physical), can sit	//2*1 = 2
2= Minor help (verbal or physical)	//4*2 = 8
3= Independent	//10*3 = 30
Mobility	
0= Immobile	//2*0 = 0
1= Wheelchair independent including corners etc.	//0*1 =0
2= Walks with help of one person (verbal or physical)	//3*2 = 6
3= Independent	//11*3 = 33
Dressing	
0= Dependent	//2*0 =0
1= Needs help but can do about half unaided	//5*1 =5
2= Independent (including buttons, zips, laces, etc.)	//9*2 = 18
Orientation	
0= Constantly disorientated requiring major supervision (persistent wandering)	// 0*0 = 0
1= Occasionally disorientated requiring minor supervision (looses way to bed/ toilet)	// 1*1 =1
2= Fully orientated	// 15*2 =30
Bathing	
0= Dependent	// 13*0 =0
1= Independent	// 3*1 =3

$\sum = 252$ (n=16)

$\Rightarrow$ 252 ÷ 16 = mean **15.75** (out of 20)

Considered to be a fair representation of patient dependency on the ward

Ward profile

Ward site *Surgical A3* Speciality *Urology* Age range *18-90+*

Number of beds *26 (6 beds closed due to staff shortages)*
In use today *20 (Aged 65+ = 15)*

Nursing staff:-

1/ Number of nursing teams *3 (2 teams split into 3 during shifts due to staff shortages)*

2/ Number of staff per nursing team *AM 1*
PM 1
Nocté 1

3/ Skill mix within each nursing team

1/ (Sr. SN) 1F (SN) 5E (SN) 1D (HCA) 1A
2/ (Sr. SN) 1F (SN) 4E (SN) (HCA) 1A

4/ Number of patients per nursing team *9 + 9 + 8 = 26* *Overall staff patient ratio 3/26 = 0.11*

5/ Organisation of care (primary nursing/ team nursing) *Team nursing (all patients have a named nurse)*

6/ Nursing model (if used) *Ropers (ADL) for assessment purposes only*

7/ Number of students attached to the ward *1 student per shift (supernumerary)*

Medical staff:-

1/ Number of medical staff attached to the ward

2 Nurse practitioners (instead of HOs)
SHO 2
Reg 4
Con 4

2/ Number of ward rounds per week per patient
= 5 (SHO; Reg; Nurse Practitioner; Named nurse/ supervising nurse)
= 1 (Consultant; SHO; Reg; Nurse Practitioner; Named nurse/ supervising nurse)
All patients seen by senior medical officer (Registrar or Consultant) following major surgery.

Other staff:-

1/ Number of patients seen by occupational therapy *2 patients per week*

2/ Number of patients seen by physiotherapy *10 patients per week (Chest/ Walking getting patient out of bed post surgery)*

3/ Number of patients seen by a dietician *3 patients per week*

4/ Number of patients seen by a chiropodist *None (usually, although service is available)*

5/ Other hospital staff who may encounter patients *Domestic (=2); Ward clerks; ECG tech/ phlebotomists; Porters (Theatre & X-ray); Pharmacist; Chaplain; Social Worker.*

6/ Special activities experienced by patients and number of patients who attend (i.e. relaxation groups)
None

Snapshot Barthel Index AREA 3

(Number of ward patients falling into each category)

Bowels	
0= Incontinent (or needs to be given an enema)	//
1= Occasional accident (once a week)	//
2= Continent	// 20x2
Bladder	
0= Incontinent, or catheterised and unable manage.	// 2x0
1= Occasional accident (max. once per 24 hours)	//
2= Continent (for over 7 days)	// 18x2
Grooming	
0= Needs help with personal care	// 5x0
1= Independent face/hair/ teeth/shaving	// 15x1
Toilet use	
0= Dependent	//
1= Needs some help, but can do something alone	// 3x1
2= Independent	// 17x2
Feeding	
0= Unable	//
1= Needs help cutting, spreading butter etc.	// 2x1
2= Independent.	// 18x2
Transfer (from bed to chair and back)	
0= Unable - no sitting balance	//
1= Major help (one or two people, physical), can sit	// 1x1
2= Minor help (verbal or physical)	// 1x2
3= Independent	// 18x3
Mobility	
0= Immobile	//
1= Wheelchair independent including corners etc.	//
2= Walks with help of one person (verbal or physical)	// 2x2
3= Independent	// 18x3
Dressing	
0= Dependent	//
1= Needs help but can do about half unaided	// 2x1
2= Independent (including buttons, zips, laces, etc.)	// 18x2
Orientation (used instead of 'steps')	
0= Constantly disorientated requiring major supervision (persistent wandering)	//
1= Occasionally disorientated requiring minor supervision (looses way to bed/ toilet)	// 1x1
2= Fully orientated	// 19x2
Bathing	
0= Dependent	//
1= Independent	// 1x18

$\Sigma = 376 + 20$

$\Rightarrow$ mean of **18.8** (out of 20)

Considered to be a fair representation of patient dependency on the ward with the exception of the first few hours post surgery

Ward profile

NB. Ward considered to be better organised and calmer than Chest I (Area 2), with greater staff stability.

Ward site Area 4 Speciality Chest II (medical) Age range 18+

Number of beds 20 In use today 20

Nursing staff:-

1/ Number of nursing teams 2

2/ Number of staff per nursing team AM 2
PM 1.5
Nocté 1.5

3/ Skill mix within each nursing team

1/ (Sr. SN) 1F (SN) 3E (SN) 3D (HCA) 2A
2/ (Sr. SN) 1F (SN) 3E (SN) 3D (HCA) 2A

4/ Number of patients per nursing team 10 + 10 = 20 Overall staff patient ratio (AM = 4/20 = 0.2; PM = 3/20 = 0.15; Nocté = 3/20 = 0.15)

5/ Organisation of care (primary nursing/ team nursing) Team Nursing

6/ Nursing model (if used) Roper (ADL) For Assessment, Goal setting, Care planning.

7/ Number of students attached to the ward 5 - Supernumerary Agency use:- 1 trained per shift

Medical staff:-

1/ Number of medical staff attached to the ward

SHO 3
Reg 1
SR 1.4
Con 4

2/ Number of ward rounds per week per patient = 2

Other staff:-

1/ Number of patients seen by occupational therapy 7

2/ Number of patients seen by physiotherapy 12

3/ Number of patients seen by a dietician 10

4/ Number of patients seen by a chiropodist 1

5/ Other hospital staff whom patients may encounter:- SLT (1pts); SW (10pts); Domestic x1 (16pts); Phlebotomist (16pts); Porters; Ward clerk; Students (Nursing, Medical).

6/ Special activities experienced by patients and number of patients who attend (i.e. relaxation groups)

OT therapy groups (to help people breath). N=6

Snapshot Barthel Index ARGA 4

(Number of ward patients falling into each category)

Bowels	
0= Incontinent (or needs to be given an enema)	//2*0 = 0
1= Occasional accident (once a week)	//
2= Continent	//18*2 = 36
Bladder	
0= Incontinent, or catheterised and unable manage.	//
1= Occasional accident (max. once per 24 hours)	//1*1 = 1
2= Continent (for over 7 days)	//19*2 =38
Grooming	
0= Needs help with personal care	//12*0= 0
1= Independent face/hair/ teeth/shaving	//8*1 = 8
Toilet use	
0= Dependent	//4*0 =0
1= Needs some help, but can do something alone	//4*1 =4
2= Independent	//12*2=24
Feeding	
0= Unable	//0*0 = 0
1= Needs help cutting, spreading butter etc.	//3*1 = 3
2= Independent.	//17*2 =34
Transfer (from bed to chair and back)	
0= Unable - no sitting balance	//1*0 =0
1= Major help (one or two people, physical), can sit	//2*1 = 2
2= Minor help (verbal or physical)	//0*2 = 0
3= Independent	//17*3 = 51
Mobility	
0= Immobile	//2*0 = 0
1= Wheelchair independent including corners etc.	//0*1 =0
2= Walks with help of one person (verbal or physical)	//2*2 = 4
3= Independent	//16*3 = 48
Dressing	
0= Dependent	//2*0 =0
1= Needs help but can do about half unaided	//12*1=12
2= Independent (including buttons, zips, laces, etc.)	// 6*2= 12
Orientation	
0= Constantly disorientated requiring major supervision (persistent wandering)	// 0*0 = 0
1= Occasionally disorientated requiring minor supervision (looses way to bed/ toilet)	// 1*1 =1
2= Fully orientated	// 19*2 =38
Bathing	
0= Dependent	// 15*0 =0
1= Independent	// 5*1 =5

$\sum = 321$ (n=20)

$\Rightarrow$ 321 ÷ 20 = mean **16.05** (out of 20)

Considered to be a fair representation of patient dependency on the ward

Ward profile

Ward site Area 5 Speciality General medical (JRII) Age range 18+

Number of beds 23 In use today 23

Nursing staff:-

1/ Number of nursing teams 3

2/ Number of staff per nursing team

AM 2 + 2 + 2
PM 1 + 1 + 1
Nocté 1 + 1 + 1

3/ Skill mix within each nursing team

1/ (Sr. SN) 1F (SN) 3E (SN) 2D (HCA) 1.75A
2/ (Sr. SN) 1F (SN) 2E (SN) 3.5D (HCA) 1A
2/ (Sr. SN) 1F (SN) 3E (SN) 2.3D (HCA) 1.2A

4/ Number of patients per nursing team 8 + 8 + 7 = 23 Overall staff patient ratio (AM = 6/23 = 0.26; PM = 3/23 = 0.13; Nocté 3/23 = 0.13)

5/ Organisation of care (primary nursing/ team nursing) Primary Nursing

6/ Nursing model (if used) Focus centred care plan (Alison Binay, JRII).

7/ Number of students attached to the ward 3 - Supernumerary Agency use 2 per day

Medical staff:-

1/ Number of medical staff attached to the ward

HO 10
SHO 9
Reg 5
Con 6

2/ Number of ward rounds per week per patient = 2 (plus other impromptu rounds)

Other staff:-

1/ Number of patients seen by occupational therapy 10

2/ Number of patients seen by physiotherapy 14

3/ Number of patients seen by a dietician 8

4/ Number of patients seen by a chiropodist 0

5/ Other hospital staff whom patients may encounter:- SLT (6pts); SW (12pts); Domestic x1 (23pts); Phlebotomist (23pts); Porters; Ward clerk; X-ray staff; Students (Nursing, Medical).

6/ Special activities experienced by patients and number of patients who attend (i.e. relaxation groups)

None

APPENDIX 17 (cont)

Snapshot Barthel Index Area 5.

(Number of ward patients falling into each category)

Bowels	
0= Incontinent (or needs to be given an enema)	// 4 * 0 =0
1= Occasional accident (once a week)	// 1 * 1=1
2= Continent	// 18 * 2=36
Bladder	
0= Incontinent, or catheterised and unable manage.	// 4 * 0=0
1= Occasional accident (max. once per 24 hours)	// 6 * 1=6
2= Continent (for over 7 days)	// 13 * 2=26
Grooming	
0= Needs help with personal care	// 12 * 0=0
1= Independent face/hair/ teeth/shaving	// 11 * 1=11
Toilet use	
0= Dependent	// 6 * 0=0
1= Needs some help, but can do something alone	// 9 * 1=9
2= Independent	// 8 * 2=16
Feeding	
0= Unable	// 1 * 0=0
1= Needs help cutting, spreading butter etc.	// 3 * 1=3
2= Independent.	// 19 * 2=38
Transfer (from bed to chair and back)	
0= Unable - no sitting balance	// 3 * 0=0
1= Major help (one or two people, physical), can sit	// 7 * 1=7
2= Minor help (verbal or physical)	// 7 * 2=14
3= Independent	// 6 * 3=18
Mobility	
0= Immobile	// 7 * 0=0
1= Wheelchair independent including corners etc.	// 3 * 1=3
2= Walks with help of one person (verbal or physical)	// 6 * 2=12
3= Independent	// 7 * 3=21
Dressing	
0= Dependent	// 5 * 0=0
1= Needs help but can do about half unaided	// 9 * 1=9
2= Independent (including buttons, zips, laces, etc.)	// 9 * 2=18
Orientation	
0= Constantly disorientated requiring major supervision (persistent wandering)	// 3 * 0 = 0
1= Occasionally disorientated requiring minor supervision (looses way to bed/ toilet)	// 5 * 1 = 5
2= Fully orientated	// 15 * 2 = 30
Bathing	
0= Dependent	// 20 * 0 = 0
1= Independent	// 3 * 1 = 3

$\Sigma = 286$

$\Rightarrow$ 286 ÷ 23 = mean **12.43** (out of 20)

Considered to be a fair representation of patient dependency on the ward

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Professor Helen Bartlett BA MSc PhD RGN RHV
Director

Dear X

RE: Study of Empowering and Disempowering Nursing Actions.

I am asking you if you would help me with a study which involves judging nursing actions. This will take you between 20 to 30 minutes to complete.

If you agree, I would provide you with a form listing *x* number of nursing actions and ask you to judge these with regards to the extent to which they represent actions which lead to control or non control as though you were experiencing them yourself. You would be asked to judge these actions on a scale of 1 - 7. There would be no right or wrong answers, just your opinion on each action. Full instructions would be given on the form. Your responses would be confidential and not shown or discussed with any member of staff involved with your care.

As a consequence of this study it is hoped to develop a scale which may be used to assess the controllability/ uncontrollability of nursing interactions with older hospitalised patients.

You need not take part in this study, and you may leave it at any time.

If you have any questions or problems, please contact me. My telephone number is 01865 485293.

Yours sincerely,

*Nursing and Allied Professional Research Ethics Committee Number*_____

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Professor Helen Bartlett BA MSc PhD RGI
Director

Dear

I am asking you if you would help me with a survey which is looking at the number of times that certain nursing actions occur within the ward setting. This involves answering a 40 item survey taking you around 10 to 15 minutes to complete.

If you agreed, I would provide you with a form listing 40 nursing actions and ask you to rate them as to how often you have encountered them during your last three days on the ward. Your ratings would use the three point scale of '*Never*,' '*Sometimes*,' or '*Often*.'

There are no right or wrong answers, just what you have encountered as to each action. Your responses would not be discussed with any member of staff involved with your care. Also, your name would not be attached to any forms.

You do not have to take part in this survey if you don't want to, and you can withdraw from it at any time, without it affecting your care in any way.

If you have any questions or problems, please contact me. My telephone number is 01865 485293.

Yours sincerely,

Mark Faulkner RGN

Act Frequency Scale Development (part 1)

Empowerment

Instructions

Think of the three most empowering nurses you know. Nurses whose interventions typically leave patients in full control over activities in their lives.

With these individuals in mind, write down five specific acts or behaviours that they have performed which reflect or exemplify their *empowering* nature. Do not write synonyms or adjectives pertaining to empowerment. Instead your suggestions should describe the specific things that nurses *do* whilst in direct contact with patients. For instance, a nurse wishing to empower a patient might 'tell them a humorous tale'

Write each act or behaviour as a simple phrase or sentence in the spaces provided overleaf.

Data Sheet (Empowerment)

Act or behaviour
(Short phrase or sentence)

1. _____

2. _____

3. _____

4. _____

5. _____

Act Frequency Scale Development (part 2)

Disempowerment

Instructions

Think of the three most disempowering nurses you know. Nurses whose interventions typically leave patients with no control over activities in their lives.

With these individuals in mind, write down five specific acts or behaviours that they have performed which reflect or exemplify their *disempowering* nature. Do not write synonyms or adjectives pertaining to disempowerment. Instead your suggestions should describe the specific things that nurses *do* whilst in direct contact with patients. For instance, a nurse wishing to disempower a patient might 'tell them a humorous tale'

Write each act or behaviour as a simple phrase or sentence in the spaces provided overleaf.

Data Sheet (Disempowerment)

Act or behaviour
(Short phrase or sentence)

1. _____

2. _____

3. _____

4. _____

5. _____

_____

Act Frequency Technique

Act Nominations (Nurse Nominations)

Empowering Act Original Nomination	Empowering Act Abridged Nomination	Disempowering Opposite (if appropriate)
1 Allowing a resident to stay in bed until they want to get up. Having breakfast later.	X Allows patients to make decisions regarding their day to day activities.	
1 Giving a patient the option to have an injection by explaining the pros and cons.	X Provides patients with information regarding what relevant investigations and procedures entail.	
1 Minimum disruption to a gentleman who likes to be left alone in his room. 'Handover' information to care staff. i.e. only go in if necessary.	Respects a patient's request for privacy.	Ignores a patient's request for privacy.
1 Allowing a patient to go home and find out for themselves whether they can or cannot cope without service provision in or out of hospital.	X Enables patients to make informed choices regarding their planned care.	
1 Not stopping a resident sitting in the nurses office who thought they were the manager themselves (dementia).	N/A *Act refers specifically to mentally impaired patients. Falls outside the scope of this research.*	
2 Establishing a rapport with the patient by introducing herself at the beginning of each shift and offering them coffee, drinks as required.	Key staff introduce themselves to patients at the start of each shift.	Key staff fail to introduce themselves to patients at the start of each shift
2 Opening channels of communication, listening attentively and rendering of advice or health talk.	Staff offer relevant advice during communication with patients.	Staff fail to offer relevant advice during communication with patients.
2 Explaining of all procedures and specific instructions related to patient care.	a/ X Provides patients with information regarding what relevant investigations or procedure will entail. b/ Provides patients with specific instructions related to relevant investigations and procedures.	Staff fail to provide specific instructions related to relevant investigations and procedures.
2 Encouraging patients to take part in their care.	X Encourages active patient participation.	
2 Treating of each patient as an individual, and giving them the opportunity to contribute in decision making regarding their health and care.	X Enables patients to make informed choices regarding their planned care. X Treats patients as individuals who have unique needs.	
3 Show an interest in the patient beyond his/ her care needs by talking about things/ people that are important to the patient.	Shows an interest in patient's lives in general, not just their treatment.	Restricts conversation to a patient's treatment only.
3 Encouraging the patient to take responsibility for their own needs e.g. hygiene, and do it for themselves in their own time	a/ X Encourages patients to take part in their own care. b/ Allows patient's time to complete tasks themselves.	Hurries patients to complete tasks.

APPENDIX 21a (cont)

Nurse Nominations

Empowering Act Original Nomination	Empowering Act Abridged Nomination	Disempowering Opposite (if appropriate)
3 Ask the patient what they would like the nurse to do for them during the shift.	Asking patients if they require help with anything during the shift.	
3 Arrange for or enable the patient to leave the ward for a period. e.g. to buy something in the shop or leave the hospital for a specific purpose.	Arrange for patients to leave the ward for short periods should they wish.	Patients are not allowed to leave the ward environment.
3 Make it clear that the patient doesn't have to sit around in their night clothes all the time. Ask the family to bring in day clothes.	Allows patients to wear what they like whilst in hospital. Ensures that patients are aware of the choices they can make.	Patients are restricted with regards to what they wear in hospital.
4 Giving positive feedback i.e. acknowledge progress.	Offers encouraging remarks regarding the achievement of a specific health related goal.	Fails to acknowledge the progress made by patients.
4 Allow patients time to complete tasks themselves	X Allows patients time to complete tasks themselves.	
4 To negotiate with the patient the level of input they require from the nurse.	Negotiates the level of input that a patient requires.	
4 To offer encouraging remarks.	X Offers encouraging remarks regarding the achievement of a specific health related goal.	
4 The nurse spending time with the patient to hear their story and therefore gain insight into their perspective.	X Shows an interest in patient's lives in general, not just their treatment.	
5 To know the patient: Through admission criteria etc.	N/A *This is not an act*	
5 Establish a rapport and to be able to communicate effectively	X Shows an interest in patient's lives in general, not just their treatment.	
5 Always exhibiting a caring attitude towards patients	N/A *Act not specific enough*	
5 Sensitive to their needs, laugh when appropriate.	X Treats patients as individuals with unique needs.	
5 Good at listening to patient: and allow them to talk.	X Staff listen attentively to the patient during communication.	
6 Allow individuals to wear their own everyday clothes if possible.	X Allows patients to wear what they like whilst in hospital.	
6 Discuss options of care and allow them to choose.	X Enables patients to make informed choices regarding their care.	

APPENDIX 21a (cont)

Nurse Nominations

Empowering Act Original Nomination	Empowering Act Abridged Nomination	Disempowering Opposite (if appropriate)
6 Acceptance of patients 'informed' choice, and respect for their decision.	X Respects patient's choices.	
6 Allow individuals to choose own diet	X Enables patients to make choices with regards to their preferred foods and drinks.	
6 Encourage individuals to feed themselves where appropriate.	Encourages individuals to feed themselves where appropriate.	
7 Ask patient's opinion	N/A *Act not specific enough*	
7 Ask permission from client for a routine intervention.	X Gains informed consent from a patient prior to undertaking an investigation or procedure.	
7 Give choices and wait for reply	a/ Allows patients time to make a choice b/ X Asks questions one at a time and waits for an answer before asking another question.	Pressures patients to make choices quickly.
7 Offered to help the woman to get off the bed.	X Assists patients with tasks they cannot do.	
7 Ask the client what they are going to do.	X Uses open questions when presenting patients with a choice.	
8 Offer them a choice of tea or coffee.	X Enables patients to make choices with regards to their preferred foods and drinks (provision of a menu).	
8 Offer a choice of clothing.	X Allows patients to wear what they like whilst in hospital.	
8 Do you feel like getting out of bed yet?	Allows patients to choose when they wish to get up in the morning.	
8 How do you feel about.....?	N/A Act not specific enough	
8 Yes you've done that really well today - that's a big improvement.	X Offers encouraging remarks regarding the achievement of a specific health related goal.	
9 Asking questions but not bending over them - ensuring level eye contact or positions (such as sitting) that give the message of having time for them.	a/ X Communicates with patients at eye level or below. b/ Sits beside a patient whilst communicating.	
9 Taking time to listen - paying attention (eye contact and posture)	X Staff listen attentively to patients whilst communicating.	

APPENDIX 21b

Nurse Nominations

Disempowering Acts Original Nomination	Disempowering Act Abridged Nomination	Empowering Opposite (if appropriate)
1 Standing over a patient feeding them, instead of sitting on a chair at eye level.	X Communicates with patients at an eye level above that of the patient.	
1 Forcing a lady to go into a bath against her wishes.	X Orders patients to engage in an activity against their wishes.	
1 Answering questions on behalf of the resident and not giving them time to speak for themselves.	Answering questions on behalf of patients in their presence when they are able to speak for themselves.	Allows patients to answer questions directed at them for themselves.
1 Obtaining medication/ prescription before discussing the options with the resident.	Altering a patient's medication without discussing this with them.	Changes in patient's medication are discussed with patients beforehand.
1 Pulling the bed clothes off and starting a task dressing without prior explanation from the patient.	X Staff conduct a physical intervention without explaining their actions.	
2 Failure to maintain nurse patient relationship.	Staff only communicate with patients if undertaking a care related task.	Staff communicate with patients irrespective of whether or not they are performing a care related task.
2 Refusal to listen to patient's complaints or failure to act on them.	a/ X Fails to assist a patient with a task they cannot do. b/ Ignores a patient's request for help.	
2 Economical with information about patient care.	X Investigations and treatments are undertaken without informing patients of what they entail.	
2 Carrying out all procedures for patients to save time.	X Over assisting patients with an activity of living.	
2 Neglecting an individuals autonomy.	X Fails to recognise the extent to which a patient wishes to be involved in care planning and delivery.	
3 Collects wash gear from the locker whilst suggesting it is time they had a wash or bath.	X Fails to gain informed consent prior to undertaking an investigation or procedure.	
3 Refusing to help a patient into bed at the time that they want to do it. (for good nursing reasons)	X Fails to assist a patient with a task they cannot do.	
3 Giving the patients their tablets with no explanation as to what they are or what they are for.	Gives patients new medication without explaining what it is for.	
3 Insisting patients eat/drink when they don't want to.	Insisting patients eat or drink when they don't want to.	Patients are allowed to choose when to eat or drink.
3 Removing a patient's cigarettes for 'safety' reasons.	Remove personal belongings (medicine, money) in the interest of safety and security.	Patients are given the option of looking after their own personal belongings including medicine and money.

APPENDIX 21b (cont)

Nurse Nominations

Disempowering Act Original Nomination	Disempowering Act Abridged Nomination	Empowering Opposite (if appropriate)
4 Feeding a patient when they have some ability to be involved in the task themselves.	X Over assisting patients with an activity of living.	
4 Interjecting, when the patient is speaking, with the nurse meeting her agenda.	Interrupting patients when they are talking to another member of staff.	Avoids interrupting patients whilst talking to another member of staff.
4 Not allowing the patient enough time to complete a task.	Not allowing a patient enough time to complete a task.	
4 Leaving a drink/food out of reach when the patient has limited mobility to get for themselves.	Leaving food and drink out of reach when the patient has limited mobility.	Placing food and drink within reach when a patient has limited mobility.
4 Placing furniture in the way as obstacles - with the intention of preventing a person who is unsteady on their feet from falling.	X Physically preventing patients from engaging in an activity.	
5 Loosing eye to eye contact.	Communicating with no eye to eye contact.	
5 Not having time to talk/ communicate with patient.	Staff only communicate with patients if undertaking a care related task.	
5 Spare time of nurse used to gossip with colleagues	Spare time of nurse used to gossip with colleagues.	
5 When meals are served, help is often not given to patients i.e. cutting up large pieces of food etc.	X Fails to assist a patient with a task they cannot do.	
5 Harsh attitude of nurse, lack of interpersonal skills.	N/A *Act not specific enough.*	
6 Discussion of care with relatives ignoring patients.	Discusses patient's care with relatives ignoring the patient.	Includes patients in discussions with relatives.
6 Helping patient with dressing.	X Over assisting patients with an activity of living.	
6 Helping patient with personal care	X Over assisting patients with an activity of living.	
6 No choice over care	X Does not enable patients to make informed choices regarding their planned care.	
6 Helping with food and drink	X Over assisting patients with an activity of living.	
7 Ignore the patient	Ignores a patients request for help.	
7 Dress her in a dressing gown backwards.	Dresses a patient in inappropriate clothing.	

APPENDIX 21b (cont)

Nurse Nominations

Disempowering Act Original Nomination	Disempowering Act Abridged Nomination	Empowering Opposite (if appropriate)
7 Take over doing up the buttons of her dress.	X Over assisting patients with an activity of living.	
7 Not look straight in the eyes when talking to patient.	Avoids eye contact when talking to a patient.	Retains eye contact whilst communicating with a patient.
7 Leaving without saying goodbye.	Leaving a patient half way through a procedure or investigation without explaining where you are going, or how long you will be.	Staff explain where they are going and how long they will be if leaving a patient mid-way through a procedure.
8 "*Here's your tea*"	N/A *Act not specific enough*	
8 Choose the clothes for the patient rather than offer a choice.	Offers patients no choice with regards to what they wear on the ward.	Patients allowed to where their own clothes.
8 Escort a patient to the loo (who hasn't asked to go) or even worse automatically put them on a commode chair straight after a meal.	X Fails to gain informed consent prior to undertaking an investigation or procedure.	
8 "Time to get up now." Equally "time for bed"	X Fails to gain informed consent prior to undertaking an investigation or procedure.	
8 Still not quite right yet is it?	N/A *Act not specific enough.*	
9 Doing their hair for them and other activities such as washing body parts that patients can do themselves.	X Over assisting patients with an activity of living.	
9 Making discouraging remakes to a patient who is attempting to be independent with an activity.	Making discouraging remarks to a patient who is attempting to be independent with an activity.	Encouraging patients who are attempting to be independent with an activity.
9 Taking them to the day room when they want to stay in their own space.	Relocating patients against their wishes.	
9 *Insisting* that patients engage in social interactions such as eating at communal meal tables, when they don't want to or are embarrassed by factors such as loss of control over drinks, loss of hearing or need for privacy at mealtimes.	A/ X Orders patients to engage in an activity against their wishes. B/ X Relocating patients against their wishes.	

Act Frequency Technique

Act Nominations (Literature Sources)

Disempowering Act	Empowering Act (opposite if appropriate)	References
1/ Physically prevents patients from engaging in an activity.		Stirling & Mc Hugh (1998); O'Keeffe, Jack, & Lye (1996); Hopton (1995). Clark & Bowling (1990)
2/ Use excessive amounts of touch whilst communicating.		Ray (1996).
3/ Orders patients to engage in an activity against their wishes.	Allows patients to choose whether or not to engage in an activity.	Hewson (1995); Clark & Bowling (1990).
4/ Verbally prevents patients from engaging in an activity.		Hewson (1995).
5/ Interrupts patients whilst engaged in an activity.		Hewson (1995).
6/ Prompts an activity that a patient is already fully aware of, and about to undertake independently.		Hewson (1995).
7/ Uses closed questions. (i.e. Do you want a cup of tea?)		Hewson (1995).
9/ Questions patient's choices.	Respects patient's choices.	Hewson (1995).
10/ Repeats instructions when patients disagree with them.		Hewson (1995).
11/ Directs the subject matter of conversations with patients.	Does not direct the subject matter of conversations.	Hewson (1995).
12/ Fires multiple questions at patients without waiting for them to answer the first.	Asks questions one at a time and waits for an answer before asking another question.	Hewson (1995).
13/ Tells patients when to engage in a personal activity.	Gives patients choice over when to engage in a personal activity	Clark & Bowling (1990).
14/ Switches lights on and off without consulting patients.	Gives patients choice over when lights are switched on or off.	Hewson (1995).
15/ Conducts physical interventions without communicating with patients.	Communicates with patients whilst conducting physical interventions.	Hewson (1995); Clark & Bowling (1990).
16/ Fails to immediately treat a patient complaining of pain.	Immediately treats a patient complaining of pain.	Briggs & Dean (1998).
17/ Fails to assist a patient with a task they cannot do.	Assists patients with tasks they cannot do.	Kirwood (1990), (1997); Clark & Bowling (1990).

Act Nominations (Literature Sources) (cont)

Disempowering Act	Empowering Act (opposite if appropriate)	References
18/ Discusses the care or treatment of patients in their presence without including them in the conversation.	Includes patients in discussions regarding care and treatment.	Hewson (1995).
19/ Uses leading questions. (i.e. You would like a cup of tea, wouldn't you?)		Hewson (1995).
20/ Talks down to patients, as if they were children.	Talks to patients as though they were equals.	Hewson (1995); Kitwood (1990), (1997).
21/ Uses a dominant posture whilst communicating (i.e. places hands on hips)	Does not use a dominant posture whilst communicating .	Hewson (1995).
22/ Wakes patients from their sleep without warning to conduct a procedure or intervention.	Avoids disturbing patients whilst they are asleep.	Clark & Bowling (1990).
23/ Switches on radio or television without consulting patients.	Consults patients prior to switching on radio or television.	Clark & Bowling (1990).
24/ Responds slowly to patient's call bells	Responds quickly to patient's call bells.	Clark & Bowling (1990)
25/ Removes food or drink from patients before they have finished.	Allows time for patients to finish their food and drink before clearing it away.	Clark & Bowling (1990).
26/ Asks a patient to do something that they cannot do due to their illness or disability.	Assesses the abilities and disabilities of patients prior to prompting an activity.	Grau, Chandler, & Saunders (1995).
27/ Invades patient's privacy whilst performing a personal activity.	Attempts to promote patient's privacy whilst performing a personal activity.	Grau, Chandler, & Saunders (1995). Cattermole, Jahoda, & Markova (1988)
28/ Imposes the routines of the ward rather than shaping them to the individual needs of patients.	Shapes the ward routines to the individual needs of patients.	Grau, Chandler, & Saunders (1995). Wade (1983).
29/ Over assisting patients with an activity of living.	Providing assistance with an activity of living only when required, and based on an assessment of the patients capabilities.	Baltes (1996).
30/ Wears a uniform.	Wears every day clothes.	Cattermole, Jahoda & Markova (1988)
31/ Automatically calls patients by their Christian name.	Asks patients how they would like to be addressed.	Davies, Laker, Ellis (1997).

Act Nominations (Literature Sources) (cont)

Disempowering Act	Empowering Act (opposite if appropriate)	References
32/ Deceives patients in order to manipulate them into compliance.	Provides accurate answers to patient's question in order to facilitate informed choice.	Kitwood (1990, 1997).
33/ Inducing fear in a person, through the use of threats.		Kitwood (1990, 1997). Hewson (1995)
34/ Providing information at a rate too fast for a person to understand.	Checks to see if information presented to patients has been understood.	Kitwood (1990, 1997).
35/ Presenting choices at a rate too fast for patients to understand.	Checks to see that patients are clear about the choices available.	Kitwood (1990, 1997).
36/ Blaming patients for actions (or failures of action) that arise from their lack of ability.	Supports patients whose actions (or failures of action) arise from their lack of ability.	Kitwood (1997).
37/ Blaming patients for actions (or failures of action) that arise from their misunderstanding of a situation.	Reinterprets a situation for patients whose actions (or failures of action) arise from their misunderstanding of a situation.	Kitwood (1997).
38/ Making remarks to patients which are damaging to their self-esteem.	Making remarks which boost patients self- esteem.	Kitwood (1997).
39/ Making jokes at a patients expense.		Kitwood (1997).

Act Nominations (Literature Sources) (cont)

Empowering Act	Disempowering Act (opposite if appropriate)	References
1/ Provides patients with information regarding when investigations or procedures will take place.		Morrissey (1998); Pasacreta (1998); Brown (1997); Withington & Renoden (1997). Davies, Laker, Ellis (1997).
2/ Provides patients with information regarding what relevant investigations and procedures will entail.	Investigations and treatments are undertaken without informing patients of what they entail.	Morrissey (1998); Pasacreta (1998); Brown (1997); Withington & Renoden (1997). Davies, Laker, Ellis (1997).
3/ Enables patients to make informed choices regarding their planned care.	Does not enable patients to make informed choices regarding their planned care.	Pasacreta (1998). Davies, Laker, Ellis (1997).
4/ Informs patients which aspects of their care they are responsible for.	Does not allow patients to take any responsibility for their own care.	Langer and Rodin (1976).
5/ Informs patients that he/she is their named nurse, and will thus be specifically responsible for their care.	Patients not informed as to who is their named nurse.	Turner (1997). Davies, Laker, & Ellis (1997); Griffith & Evans (1995); Davies (1994). Pearson, Durand, & Punton (1988)
6/ Enables patients to make choices with regards to their preferred foods and drinks (provision of a menu)	Patients given no choice regarding preferred foods and drinks (i.e. provision of a menu).	Parkin (1997).
7/ Communicates with patients at the patient eye level or below.	Communicates with patients at an eye level above that of the patient.	Ray (1996).
8/ Increases the number of events over which patients have control.	Decreases the number of events over which patients have control.	Langer & Rodin (1976); Schulz (1976).
9/ Treats patients as individuals, who have unique needs.	Fails to respond to the unique needs of individual patients.	Davies, Laker & Ellis (1997); Miller (1985).
10/ Seeks feed back from patients regarding their care.		Davies, Laker & Ellis (1997). Thomas (1994).
11/ Involves visitors and relatives in a patients care.		Davies, Laker & Ellis (1997). Wade (1983).
12/ Allows patients to make decisions regarding their day to day activities.	Prevents patients from making decisions regarding their day to day activities.	Davies, Laker & Ellis (1997).
13/ Recognises the extent to which a patient wishes to be involved in care planning and delivery.	Fails to recognise the extent to which a patient wishes to be involved in care planning and delivery.	Davies, Laker & Ellis (1997).
14/ Encourages active patient participation.	Discourages active patient participation.	Davies, Laker & Ellis (1997); Wilson-Barnett & Fordham (1983).
15/ Gains informed consent from patients prior to undertaking an investigation or procedure.	Fails to gain informed consent prior to undertaking an investigation or procedure.	Davies, Laker & Ellis (1997); Brearley (1990).

Act Nominations (Literature Sources) (cont)

Empowering Act	Disempowering Act (opposite if appropriate)	References
16/ Explains his/her actions to patients during healthcare interventions.	Does not explain his/her actions during healthcare interventions.	Davies, Laker & Ellis (1997); Thomas (1994).

APPENDIX 22a

Act Frequency Technique (Act Nominations Compiled) — Empowerment

Empowerment	Abridged Nomination *(from the patients perspective)*	Source (Literature = L Questionnaire = Q)
1/ Provides patients with information regarding when investigations or procedures will take place.	You are told when a relevant investigation or procedure will take place.	LQ
2/ Provides patients with information regarding what relevant investigations and procedures will entail.	You are given information about a relevant investigation or procedure telling you what it entails.	LQ
3/ Enables patients to make informed choices regarding their planned care.	You are encouraged to make informed choices regarding your planned care.	LQ
4/ Gives patients a choice regarding whether or not they wish to be responsible for certain aspects of their own care.	You are given the choice over whether you wish to be responsible for certain aspects of your own care.	L
5/ Informs patients that he/she is their named nurse, and will thus be specifically responsible for their care.	You are told who your named nurse is (i.e. a nurse who is specifically responsible for your care). .	L
6/ Enables patients to make choices with regards to their preferred foods and drinks (provision of a menu)	You are encouraged to make choices with regards to your preferred foods and drinks (i.e. through the provision of a menu).	LQ
7/ Communicates with patients at the patient eye level or below.	Staff communicate with you at eye level or below.	LQ
8/ Treats patients as individuals, who have unique needs.	Staff respect your individual needs.	LQ
9/ Seeks feedback from patients regarding their care.	You are encouraged to provide feedback regarding an aspect of your care.	LQ
10/ Involves visitors and relatives in a patients care.	Your relatives and visitors are encouraged to be involved in your care.	LQ
11/ Allows patients to make decisions regarding their day to day activities.	You are encouraged to make decisions regarding your day to day activities.	LQ
12/ Recognises the extent to which a patient wishes to be involved in care planning and delivery.	Staff recognise the extent to which you wish to be involved in your care.	L

APPENDIX 22a (cont)

Empowerment	Abridged Nomination *(from the patients perspective)*	Source (Literature = L Questionnaire = Q)
13/ Gains informed consent from patients prior to undertaking an investigation or procedure.	Staff seek your informed consent prior to undertaking an investigation or procedure.	LQ
14/ Explains his/her actions to patients during healthcare interventions.	Staff explain their actions throughout an intervention or procedure.	LQ
15/ Provides clear answers to patient's question in order to facilitate informed choice.	Your questions are answered clearly in order to facilitate informed choice.	LQ
16/ Checks to see if information presented to patients has been understood.	Staff check to make sure that the information that they have given to you has been understood.	LQ
17/ Checks to see that patients are clear about the choices available.	Staff ensure that you are clear about the choices available to you.	LQ
18/ Supports patients whose actions (or failures of action) arise from their illness or disability.	You are supported when your actions, or failure to act, has arisen from your illness or disability.	LQ
19/ Reinterprets a situation for patients whose actions (or failures of action) arise from their misunderstanding of a situation.	Staff reinterpret a situation where your actions, or failure to act, has occurred as a result of a misunderstanding.	L
20/ Uses open questions when presenting patients with a choice (i.e. What would you like to drink?).	Staff use open questions when presenting you with a choice (i.e. What would you like to drink?).	LQ
21/ Respects patient's choices.	Your choices are respected.	LQ
22/ Does not direct the subject matter of conversations.	Staff allow you to direct the subject matter of a conversation.	L
23/ Asks questions one at a time and waits for an answer before asking another question.	Staff allow you time to answer each question asked before progressing to the next.	LQ
24/ Gives patients choice over when to engage in a personal activity	You are encouraged to choose *when* you would like to engage in a particular activity.	LQ
25/ Gives patients choice over when lights are switched on or off.	You are given a choice over when lights are switched on or off.	L

APPENDIX 22a (cont)

Empowerment	Abridged Nomination *(from the patients perspective)*	Source (Literature = L Questionnaire = Q)
26/ Immediately treats a patient complaining of pain.	You are treated immediately after you have complained of pain.	LQ
27/ Assists patients with tasks they cannot do.	You are assisted with a task that you cannot do.	LQ
28/ Includes patients in discussions regarding care and treatment.	You are included in a discussion between members of staff regarding your treatment.	LQ
29/ Talks to patients as though they were equals.	Staff treat you as an equal.	LQ
30/ Avoids disturbing patients whilst they are resting.	Staff avoid disturbing you whilst you are resting	LQ
31/ Consults patients prior to switching on radio or television.	You are consulted before a television or radio is switched on or off.	LQ
32/ Responds quickly to patient's call bells.	Your patients call bell is responded to quickly.	L
33/ Allows time for patients to finish their food and drink before clearing it away.	You are allowed time to finish food and drink prior to it being cleared away.	LQ
34/ Assesses the abilities and disabilities of patients prior to prompting an activity.	You are prompted to undertake activities which you are capable of performing.	L
35/ Attempts to promote patient's privacy whilst they are performing a personal activity.	Staff promote your privacy whilst you undertake a personal activity.	L
36/ Shapes the ward routines to the individual needs of patients.	Ward routines are shaped to your individual needs.	LQ
37/ Providing assistance with an activity of living only when required, and based on an assessment of the patients capabilities.	Staff help you with an activity only when necessary.	LQ
38/ Wears every day clothes.	Staff wear every day clothes.	L
39/ Asks patients how they would like to be addressed.	You are asked how you would like to be addressed during communications. (i.e. Mr Smith; William; or Bob etc.).	LQ
40/ Making remarks which boast patient's self-esteem.	Staff make remarks which boost your self-esteem.	L
41/ Encourages active patient participation	Staff encourage you to actively participate in your care.	L

APPENDIX 22b

Act Frequency Technique (Act Nominations Compiled) — Disempowerment

Disempowerment	Abridged Nomination *(from the patients perspective)*	Source (Literature = L Questionnaire = Q)
1/ Physically prevents patients from engaging in an activity.	You are physically prevented from engaging in an activity against your wishes.	LQ
2/ Uses excessive amounts of touch whilst communicating.	Staff use excessive amounts of touch whilst communicating with you.	L
3/ Orders patients to engage in an activity against their wishes.	You are ordered to engage in an activity against your wishes.	LQ
4/ Verbally prevents patients from engaging in an activity.	You are ordered *not* to engage in an activity against your wishes.	L
5/ Interrupts patients whilst engaged in an activity.	You are interrupted whilst engaged in an activity.	LQ
6/ Prompts an activity that a patient is already fully aware of, and about to undertake independently.	You are told to undertake an activity which you are fully aware of, and about to undertake independently.	LQ
7/ Uses closed questions when presenting you with a choice (i.e. Do you want a cup of tea?)	Staff use closed questions when presenting you with a choice (i.e. Do you want a cup of tea?).	LQ
8/ Questions patient's choices.	Staff question a choice that you have made.	L
9/ Repeats instructions when patients disagree with them.	Staff repeat an instruction which you have previously disagreed with.	L
10/ Directs the subject matter of conversations with patients.	Staff direct the subject matter of a conversation with you.	LQ
11/ Fires multiple questions at patients without waiting for them to answer the first.	Staff fire multiple questions at you without waiting for you to answer the first.	LQ
12/ Tells patients when they can engage in a personal activity.	You are given a time zone telling you when you can, or cannot, engage in a personal activity.	LQ
13/ Switches lights on and off without consulting patients.	Staff switch a light on or off without consulting you.	L
14/ Fails to immediately treat a patient complaining of pain.	Staff respond slowly to your complaint of being in pain.	LQ

APPENDIX 22b (cont)

Disempowerment	Abridged Nomination *(from the patients perspective)*	Source (Literature = L Questionnaire = Q)
15/ Fails to assist a patient with a task they cannot do.	Staff fail to assist you with a task you cannot do.	LQ
16/ Discusses the care or treatment of patients in their presence without including them in the conversation.	Staff discuss your care or treatment in your presence without including you in the conversation.	LQ
17/ Uses leading questions when presenting a choice. (i.e. You would like a cup of tea, wouldn't you?)	Staff use leading questions when presenting you with a choice. (i.e. You would like a cup of tea, wouldn't you?)	LQ
18/ Talks down to patients, as if they were children.	Staff talk down to you as though you were a child.	LQ
19/ Uses a dominant posture whilst communicating (i.e. places hands on hips).	Staff use dominant postures whilst communicating with you (i.e. placing hands on hips).	L
20/ Wakes patients from their sleep without warning to conduct a procedure or intervention.	You are woken from your sleep without warning and submitted to a procedure or investigation.	LQ
21/ Switches on radio or television without consulting patients.	A television or radio is switched on or off without consulting you.	LQ
22/ Responds slowly to patient's call bells	Staff respond slowly to your call bell.	LQ
23/ Removes food or drink from patients before they have finished.	Food or drink is removed from your table before you have finished it.	L
24/ Asks a patient to do something that they cannot do due to their illness or disability.	You are asked to do something that you cannot do because of your illness or disability.	L
25/ Invades the patient's privacy whilst performing a personal activity.	Your privacy is invaded whilst you are performing a personal activity.	LQ
26/ Imposes the routines of the ward rather than shaping them to the individual needs of the patient.	Staff impose ward routines on you despite them not suiting your individual needs.	LQ
27/ Over assisting patients with an activity of living.	You are assisted with an activity you can normally carry out independently.	LQ
28/ Wears a uniform whilst in contact with patients.	Staff wear uniforms.	L
29/ Automatically calls patients by their Christian name.	You are automatically addressed by your Christian name.	L

APPENDIX 22b (cont)

Disempowerment	Abridged Nomination *(from the patients perspective)*	Source (Literature = L Questionnaire = Q)
30/ Deceives patients in order to manipulate them into compliance.	You are deceived into complying with an aspect of your care.	L
31/ Using threats in order to gain compliance. (i.e. "If you don't sit down you'll fall and hurt yourself ")	Staff use threats in order to gain your compliance regarding an aspect of your care. (i.e. "If you don't sit down you'll fall and hurt yourself")	LQ
32/ Providing information at a rate too fast for a person to understand.	You are provided with information at a rate too fast for you to understand.	LQ
33/ Presenting choices at a rate too fast for patients to understand.	You are presented with choices at a rate too fast for you to understand.	L
34/ Blaming patients for actions (or failures of action) that arise from their lack of ability.	You are blamed for actions (or failures of action) that arise from illness or disability.	LQ
35/ Blaming patients for actions (or failures of action) that arise from their misunderstanding of a situation.	You are blamed for actions (or failures of action) that arise from your misunderstanding of a situation.	L
36/ Making remarks to patients which are damaging to their self-esteem.	Staff make remarks which are damaging to your self esteem.	LQ
37/ Making jokes at a patient's expense.	Staff make jokes at your expense.	L
38/ Investigations and treatments are undertaken without informing patients of what they entail.	An investigation or treatment is performed without you being told what it entails.	LQ
39/ Does not enable patients to make informed choices regarding their planned care.	You are discouraged from making decisions regarding your planned care.	LQ
40/ Patients not informed as to who is their named nurse.	You are not informed who your named nurse is (i.e. nurse who is solely responsible and accountable for your care).	L
41/ Patients given no choice regarding preferred foods and drinks (i.e. provision of a menu).	You are given no choice regarding your preferred foods or drinks.	LQ
42/ Communicates with patients at an eye level above that of the patient.	Staff communicate with you at an eye level above your own.	LQ

APPENDIX 23a

Act Frequency Technique

Act Nominations (by Thematic Grouping).

Empowerment

Provision of Information

Empowering Act	Criteria for Removal or Merger
1 You are told when a relevant investigation or procedure will take place.	
2 You are given information about a relevant investigation or procedure telling you what it entails.	This act may only occur once on admission (there is usually only one named nurse per patient). Act #5 is therefore removed.
5 You are told who your named nurse is (i.e. a nurse who is specifically responsible for your care).	
14 Staff explain their actions throughout an intervention or procedure.	
16 Staff check to make sure that the information that they have given to you has been understood.	This act may only occur once. Act #66 is therefore removed.
43 Relevant staff introduce themselves to you at the start of the shift.	
44 You are provided with specific instructions related to relevant investigations and procedures.	
66 You are provided with information regarding visiting hours, and the ward telephone number.	Act #77 and Act #96 are similar. Act #77 alludes to two different types of 'information,' information regarding the ward and information regarding the patients illness, it is therefore ambiguous. It may also only occur once, i.e. during admission. Act #77 is therefore removed
69 Staff explain investigations and procedures in terms of how they will 'feel.'	
76 You are provided with information regarding which staff you will see during the day.	
77 You are provided with leaflets about the ward and your specific illness.	
78 Staff permit you to read your care plan and other nursing documents should you wish.	
82 You are consulted before a change is made in your medication.	
89 Staff explain where they are going and how long they will be if leaving you mid-way through a procedure.	Patients may not know if investigations are reported promptly. Act #93 is therefore removed.
93 Staff inform you of the results of relevant investigations promptly.	
95 You are included in a group health promotion discussion.	
96 Staff provide you with relevant information regarding your illness.	
100 Staff provide you with information regarding your future care options.	
103 Staff inform you of self help groups in the community.	This act may only occur once. Act #103 is therefore removed.
106 Staff provide you with scenarios of how previous patients coped with the healthcare problems that you are currently facing.	

APPENDIX 23a (cont)

Communication

Empowering Act	Criteria for Removal or Merger
7 Staff communicate with you at eye level or below.	
22 Staff allow you to direct the subject matter of a conversation.	
23 Staff allow you time to answer each question asked before progressing to the next.	
28 You are included in a discussion between members of staff regarding your treatment.	
45 Staff show an interest in your life in general, not just your treatment.	Acts #45 and #104 are very similar. Act #45 is preferred because of its broader utility. Act #104 is removed.
50 You receive encouraging remarks for achieving a specific health related goal.	
55 Staff seek feedback from you regarding information which they have given.	
68 Staff explain procedures and treatments without using complicated medical jargon.	
81 You are permitted to answer questions directed at you without interruption.	These two acts are fairly similar. Act #107 is preferred due to it's broader utility. Act #81 is therefore removed.
83 Staff communicate with you irrespective of whether they are performing a care related task.	
87 You are included in discussions with relatives regarding your care.	
88 Staff retain eye contact whilst communicating with you.	
98 Staff maintain contact with you throughout the day.	
104 Staff ask you about your hobbies and interests	
107 Staff listen to what you have to say without interrupting.	
109 Staff demonstrate empathy when discussing your problems.	
112 Staff offer their own experiences to illustrate a point where relevant.	

APPENDIX 23a (cont)

Provision of Choice

Empowering Act	Criteria for Removal or Merger
3 You are encouraged to make informed choices regarding your planned care.	
4 You are given the choice over whether you wish to be responsible for certain aspects of your own care.	
6 You are encouraged to make choices with regards to your preferred foods and drinks (i.e. through the provision of a menu).	
11 You are encouraged to make decisions regarding your day to day activities.	
15 Your questions are answered clearly in order to facilitate informed choice.	
17 Staff ensure that you are clear about the choices available to you.	
20 Staff use open questions when presenting you with a choice (i.e. What would you like to drink?).	
21 Your choices are respected.	
24 You are encouraged to choose when you would like to engage in a particular activity.	Act #24 and Act #74 are similar. Act #24 is preferred as it's sentence structure is clearer. Act #74 is therefore removed
25 You are given a choice over when lights are switched on or off.	
39 You are asked how you would like to be addressed during communications. (i.e. Mr Smith; William; or Bob etc.).	
49 You are permitted to wear what you like whilst on the ward.	
53 You are allowed time to make a choice.	
54 You are encouraged to choose when to get up in the morning.	
58 You are encouraged to chose where you have your meals.	
67 Staff enable you to make choices regarding your preferred social activities.	Acts #67 and #72 are very similar. Act #72 is preferred because of its broader utility. Act #67 is therefore removed.
72 You are encouraged to choose whether or not to participate in an event or activity.	
73 You are encouraged to choose when to go to bed.	
74 Staff negotiate a time which is convenient for you to participate in an event or activity.	
92 Staff are flexible regarding when you take your medication.	
101 Staff support a decision you have made regarding your care, despite this involving an element of risk.	Act #101 is similar to Act #21. Whilst Act #101 adds the dimension of risk. Participants answers will depend very much upon how they define 'risk.' Participants would also have to assess whether staff perceived this risk, a situation which may be difficult to *observe*. Act #101 is therefore removed.
102 Staff allow you to choose whether or not to follow the wards routine.	

Act Frequency Technique

Act Nominations (by Thematic Grouping).

Disempowerment

Non Provision of Information

Disempowering Act	Criteria for Removal or Merger
32 You are provided with information at a rate too fast for you to understand.	
38 An investigation or treatment is performed without you being told what it entails.	
40 You are not informed who your named nurse is (i.e. nurse who is solely responsible and accountable for your care).	Act #40 is not observable. Act #40 is therefore removed
50 Your medication is altered without this being discussed with you.	
60 Staff leave you half way through a procedure or investigation without explaining where they're going, or how long they'll be.	Act #60 is not observable. Act #60 is therefore removed
68 Staff withhold the result of an investigation.	
74 You are not informed about the visiting hours and telephone number of the ward.	Act #74 is not observable. Act #74 is therefore removed
80 Staff withhold information regarding a procedure or investigation.	Act #80 is not observable. Act #80 is therefore removed
82 Relevant staff fail to introduce themselves to you at the start of the shift.	
83 Staff fail to provide you with specific instructions prior to undertaking relevant investigations and procedures.	
94 Staff fail to orientate you to the ward environment.	Act #94 is not observable. Act #94 is therefore removed
95 Staff fail to orientate you to the wards day to day routine.	Act #95 is not observable. Act #95 is therefore removed

Disempowerment

Unsuitable Environment for Independent Activity

Disempowering Act	Criteria for Removal or Merger
23 Food or drink is removed from your table before you have finished it.	
26 Staff impose ward routines on you despite them not suiting your individual needs.	
27 You are assisted with an activity you can normally carry out independently.	Acts #27 and #43 are similar. Act #27 is preferred as it's sentence structure is clearer. Act #43 is removed.
43 An activity which you have previously performed independently is now undertaken by a member of staff.	
46 You are discouraged from being actively involved in your care.	
52 Staff insist that you eat or drink when you don't want to.	
55 You are not allowed enough time to complete a task.	
56 Food and drink are left out of reach despite your limited mobility.	
62 Staff make discouraging remarks regarding your attempts to remain independent with an activity.	
89 Your nurse call bell is placed out of reach.	
91 Staff leave personal items (brush, washing utensils) out of your reach whilst you are attending to your hygiene.	
93 You are prevented from administering your own medication.	
96 Staff dictate when you get up in the morning.	
97 Staff dictate when you go to bed	

Disempowerment

Failure to Respond to Patients

Disempowering Act	Criteria for Removal or Merger
14 Staff respond slowly to your complaint of being in pain.	
15 Staff fail to assist you with a task you cannot do.	
22 Staff respond slowly to your call bell.	
44 Your unique needs as an individual are not catered for by hospital staff.	Act #44 is not observable. Act #44 is therefore removed
45 Staff fail to recognise the extent to which you wish to be involved in the planning and delivery of your care	
59 Your request for help is ignored by staff.	
64 Staff fail to recognise your need for privacy.	
77 Staff forget to undertake a task you have requested.	
81 Your request for privacy is ignored.	
86 Staff fail to acknowledge the progress you have made with your health goals.	
104 Staff busy themselves when they realise you require help.	

APPENDIX 24a

Act Judgement Questionnaire

Empowerment

Patients age: _____Patients gender:_____

Instructions:-

In this study, you are asked to make judgements about a series of nursing actions - things that nurses might do. Please use the seven point scale provided to indicate the extent to which each action would *increase* your feelings of control within the hospital environment.

Here:-

"7" means that an action would *considerably* increase your feelings of control;

"4" means that an action would *moderately* increase your feelings of control; and

"1" means that and action would *not* increase in your feelings of control.

Use other numbers on the 7-point scale to indicate intermediate judgements.

Try the following two nursing actions:-

1/ You are given information regarding visiting hours.

Would this increase your feelings of control?

Not at all Moderately Considerably

1-------2-------3-------4-------5-------6-------7

2/ Staff tell you about relevant self help groups in the community.

Would this increase your feelings of control?

Not at all Moderately Considerably

1-------2-------3-------4-------5-------6-------7

Empowerment

	Nursing Actions	Would this increase your feelings of control? Not at all Moderately Considerably
X	You are given information regarding visiting hours.....	1------2------3------4------5------6------7
X	*Staff tell you about relevant self help groups in the community....*	1------2------3------4------5------6------7
1	You are told when a relevant investigation or procedure will take place.	1------2------3------4------5------6------7
2	You are given information about a relevant investigation or procedure telling you what it entails.....	1------2------3------4------5------6------7
3	You are encouraged to make informed choices regarding your planned care.....	1------2------3------4------5------6------7
4	You are given the choice over whether you wish to be responsible for certain aspects of your own care.....	1------2------3------4------5------6------7
5	You are encouraged to make choices with regards to your preferred foods and drinks (i.e. through the provision of a menu).....	1------2------3------4------5------6------7
6	Staff communicate with you at eye level or below.....	1------2------3------4------5------6------7
7	You are encouraged to provide feedback regarding an aspect of your care.....	1------2------3------4------5------6------7
8	Your relatives and visitors are encouraged to be involved in your care...	1------2------3------4------5------6------7
9	You are encouraged to make decisions regarding your day to day activities.....	1------2------3------4------5------6------7
10	Staff recognise the extent to which you wish to be involved in your care.	1------2------3------4------5------6------7
11	Staff seek your informed consent prior to undertaking an investigation or procedure.....	1------2------3------4------5------6------7
12	Staff explain their actions throughout an intervention or procedure.....	1------2------3------4------5------6------7
13	A question you have asked about your care is answered clearly in order to facilitate informed choice.....	1------2------3------4------5------6------7
14	Staff check to make sure that the information that they have given to you has been understood.....	1------2------3------4------5------6------7
15	Staff make sure that you are clear about the choices available to you...	1------2------3------4------5------6------7
16	You are supported when your actions, or failure to act, has arisen from your illness or disability.....	1------2------3------4------5------6------7
17	Staff reinterpret a situation where your actions, or failure to act, has occurred as a result of a misunderstanding.....	1------2------3------4------5------6------7

Empowerment

	Nursing Actions	Would this increase your feelings of control? Not at all Moderately Considerably
18	Staff allow you to direct the subject matter of a conversation.....	1-------2-------3-------4-------5-------6-------7
19	Your choices are respected.....	1-------2-------3-------4-------5-------6-------7
20	Staff allow you time to answer each question asked before progressing to the next.....	1-------2-------3-------4-------5-------6-------7
21	You are encouraged to choose *when* you would like to take part in a particular activity.....	1-------2-------3-------4-------5-------6-------7
22	You are given a choice over when lights are switched on or off.....	1-------2-------3-------4-------5-------6-------7
23	You are treated immediately after you have complained of pain.....	1-------2-------3-------4-------5-------6-------7
24	You are assisted with a task that you cannot do.....	1-------2-------3-------4-------5-------6-------7
25	You are included in a discussion between members of staff regarding your treatment.....	1-------2-------3-------4-------5-------6-------7
26	Staff avoid disturbing you whilst you are resting.....	1-------2-------3-------4-------5-------6-------7
27	You are consulted before a television or radio is switched on or off.....	1-------2-------3-------4-------5-------6-------7
28	Your patients call bell is responded to quickly.....	1-------2-------3-------4-------5-------6-------7
29	You are allowed time to finish food and drink before it is cleared away.....	1-------2-------3-------4-------5-------6-------7
30	You are prompted to undertake activities which you are capable of performing.....	1-------2-------3-------4-------5-------6-------7
31	Staff promote your privacy whilst you undertake a personal activity....	1-------2-------3-------4-------5-------6-------7
32	Ward routines are shaped to your individual needs.....	1-------2-------3-------4-------5-------6-------7
33	Staff help you with an activity only when necessary.....	1-------2-------3-------4-------5-------6-------7
34	Staff wear every day clothes.....	1-------2-------3-------4-------5-------6-------7
35	You are asked how you would like to be addressed during communications. (i.e. Mr Smith; William; or Bob etc.).....	1-------2-------3-------4-------5-------6-------7
36	Staff make remarks which boost your self-esteem (self-regard).....	1-------2-------3-------4-------5-------6-------7
37	Staff encourage you to actively participate in your care.....	1-------2-------3-------4-------5-------6-------7
38	Staff respect your request for privacy.....	1-------2-------3-------4-------5-------6-------7
39	Relevant staff introduce themselves to you at the start of the shift.	1-------2-------3-------4-------5-------6-------7

Empowerment

	Nursing Actions	Would this increase your feelings of control? Not at all Moderately Considerably
40	You are encouraged to complete tasks by yourself.....	1-------2-------3-------4-------5-------6-------7
41	You are asked if you require help with anything during the shift.....	1-------2-------3-------4-------5-------6-------7
42	Staff arrange for you to leave the ward for a short period.....	1-------2-------3-------4-------5-------6-------7
43	You are allowed to wear what you like whilst on the ward.....	1-------2-------3-------4-------5-------6-------7
44	You receive encouraging remarks for achieving a specific health related goal.....	1-------2-------3-------4-------5-------6-------7
45	Staff ask you how much help you will need with a task.....	1-------2-------3-------4-------5-------6-------7
46	You are encouraged to feed yourself during meals.....	1-------2-------3-------4-------5-------6-------7
47	You are allowed time to make a choice.....	1-------2-------3-------4-------5-------6-------7
48	You are encouraged to choose when to get up in the morning.....	1-------2-------3-------4-------5-------6-------7
49	Staff seek feedback from you regarding information which they have given.....	1-------2-------3-------4-------5-------6-------7
50	You are positioned on the ward so that you can see staff and are able to ask for assistance.....	1-------2-------3-------4-------5-------6-------7
51	Staff make sure that your nurse call bell is always within reach.....	1-------2-------3-------4-------5-------6-------7
52	You are encouraged to choose where you have your meals.....	1-------2-------3-------4-------5-------6-------7
53	Staff make sure that personal items (brush, washing utensils) are within reach whilst you are washing and dressing.....	1-------2-------3-------4-------5-------6-------7
54	You are allowed to give your own medication under supervision.....	1-------2-------3-------4-------5-------6-------7
55	You are encouraged to adopt a similar routine to when you were at home.	1-------2-------3-------4-------5-------6-------7
56	Staff make sure that your environment is suitable for you to undertake an activity independently.....	1-------2-------3-------4-------5-------6-------7
57	You are familiarised with the ward environment.....	1-------2-------3-------4-------5-------6-------7
58	You are familiarised with the day to day routine of the ward.....	1-------2-------3-------4-------5-------6-------7
59	You are allowed to move freely around the ward.....	1-------2-------3-------4-------5-------6-------7
60	Staff explain procedures and treatments without using complicated medical jargon.....	1-------2-------3-------4-------5-------6-------7

Empowerment

	Nursing Actions	Would this increase your feelings of control? Not at all Moderately Considerably
61	Staff work quietly at night to help you get to sleep.....	1-------2-------3-------4-------5-------6-------7
62	Staff remember to do a task you have requested.....	1-------2-------3-------4-------5-------6-------7
63	You are encouraged to choose whether or not to participate in an event or activity.....	1-------2-------3-------4-------5-------6-------7
64	You are encouraged to choose when to go to bed.....	1-------2-------3-------4-------5-------6-------7
65	Staff allow you to undertake an activity without interruption.....	1-------2-------3-------4-------5-------6-------7
66	You are told which staff you will see during the day.....	1-------2-------3-------4-------5-------6-------7
67	Staff allow you to read your care plan and other nursing documents should you wish.....	1-------2-------3-------4-------5-------6-------7
68	You are allowed to carry out a simple investigation which contributes to your care (i.e. monitor fluid intake and output).....	1-------2-------3-------4-------5-------6-------7
69	Staff put you in touch with relevant non- medical specialists (i.e. Dietician; Physiotherapist; Occupational therapist; Chiropodist).	1-------2-------3-------4-------5-------6-------7
70	You are consulted before a change is made in your medication.....	1-------2-------3-------4-------5-------6-------7
71	Staff communicate with you irrespective of whether they are performing a care related task.....	1-------2-------3-------4-------5-------6-------7
72	You are allowed to eat or drink whenever you wish.....	1-------2-------3-------4-------5-------6-------7
73	You are given the option of looking after your own personal belongings.....	1-------2-------3-------4-------5-------6-------7
74	Staff place food and drink within your reach.	1-------2-------3-------4-------5-------6-------7
75	You are included in discussions with relatives regarding your care.....	1-------2-------3-------4-------5-------6-------7
76	Staff retain eye contact whilst communicating with you.....	1-------2-------3-------4-------5-------6-------7
77	Staff explain where they are going and how long they will be if leaving you mid-way through a procedure.....	1-------2-------3-------4-------5-------6-------7
78	Staff ask your permission before tidying your personal belongings.....	1-------2-------3-------4-------5-------6-------7
79	Staff are flexible regarding when you take your medication.....	1-------2-------3-------4-------5-------6-------7
80	You are included in a group health promotion discussion.....	1-------2-------3-------4-------5-------6-------7
81	Staff provide you with relevant information regarding your illness.....	1-------2-------3-------4-------5-------6-------7

Empowerment

	Nursing Actions	Would this increase your feelings of control? Not at all Moderately Considerably
82	Staff maintain contact with you throughout the day.....	1-------2-------3-------4-------5-------6-------7
83	Staff support you through their presence but allow you to undertake an activity independently.....	1-------2-------3-------4-------5-------6-------7
84	Staff provide you with information regarding your future care options...	1-------2-------3-------4-------5-------6-------7
85	Staff allow you to choose whether or not to follow the wards routine....	1-------2-------3-------4-------5-------6-------7
86	Staff allow you time to complete tasks.....	1-------2-------3-------4-------5-------6-------7
87	Staff provide you with scenarios of how previous patients coped with the healthcare problems that you are currently facing.....	1-------2-------3-------4-------5-------6-------7
88	Staff listen to what you have to say without interrupting.....	1-------2-------3-------4-------5-------6-------7
89	Staff provide for your religious and cultural needs.....	1-------2-------3-------4-------5-------6-------7
90	Staff demonstrate empathy (understanding) when discussing your problems.....	1-------2-------3-------4-------5-------6-------7
91	Staff resolve a complaint that you have made.....	1-------2-------3-------4-------5-------6-------7
92	Staff make themselves available upon realising that you need help.....	1-------2-------3-------4-------5-------6-------7
93	Staff offer their own experiences to illustrate a point where relevant.....	1-------2-------3-------4-------5-------6-------7
94	Staff use open questions when presenting you with a choice (i.e. What would you like to drink?).....	1-------2-------3-------4-------5-------6-------7
95	You are provided with specific instructions related to relevant investigations and procedures.....	1-------2-------3-------4-------5-------6-------7
96	Staff show an interest in your life in general, not just your treatment.....	1-------2-------3-------4-------5-------6-------7
97	Staff explain investigations and procedures in terms of how they will 'feel.'.....	1-------2-------3-------4-------5-------6-------7
98	Staff ask your permission before approaching others who know you (i.e. family, warden, GP) regarding your care.....	1-------2-------3-------4-------5-------6-------7

APPENDIX 24b

Act Frequency Technique

Act Judgement Questionnaire

Disempowerment

Patients age: _____Patients gender:_____

Instructions:-

In this study, you are asked to make judgements about a series of nursing acts - things that nurses might do. Please use the seven point scale provided to indicate the extent to which each action would *decrease* your feelings of control within the hospital environment.

Here:-

"7" means that an act would *considerably* decrease your feelings of control;

"4" means that an act would *moderately* decrease your feelings of control; and

"1" means that and act would *not* decrease in your feelings of control.

Use other numbers on the 7-point scale to indicate intermediate judgements.

Try the following two nursing actions:-

1/ Staff fail to familiarise you with the ward layout.

Would this decrease your feelings of control?

Not at all Moderately Considerably

1-------2-------3-------4-------5-------6-------7

2/ An activity which you have previously performed independently is now undertaken by a member of staff.

Would this decrease your feelings of control?

Not at all Moderately Considerably

1-------2-------3-------4-------5-------6-------7

Disempowerment

Nursing Actions	Would this decrease your feelings of control Not at all Moderately Considerabl
X Staff fail to familiarise you to the ward environment.....	1-------2-------3-------4-------5-------6-------7
X An activity which you have previously performed independently is now undertaken by a member of staff.....	1-------2-------3-------4-------5-------6-------7
1 You are physically prevented from engaging in an activity against your wishes.....	1-------2-------3-------4-------5-------6-------7
2 Staff use excessive amounts of touch whilst communicating with you....	1-------2-------3-------4-------5-------6-------7
3 You are ordered to take part in an activity against your wishes.....	1-------2-------3-------4-------5-------6-------7
4 You are ordered *not* to take part in an activity against your wishes.....	1-------2-------3-------4-------5-------6-------7
5 You are interrupted whilst undertaking an activity.....	1-------2-------3-------4-------5-------6-------7
6 You are told to undertake an activity which you are fully aware of, and about to undertake independently.....	1-------2-------3-------4-------5-------6-------7
7 Staff use closed questions when presenting you with a choice (i.e. Do you want a cup of tea?).....	1-------2-------3-------4-------5-------6-------7
8 Staff question a choice that you have made.....	1-------2-------3-------4-------5-------6-------7
9 Staff repeat an instruction which you have previously disagreed with....	1-------2-------3-------4-------5-------6-------7
10 Staff direct the subject matter of a conversation with you.....	1-------2-------3-------4-------5-------6-------7
11 Staff fire multiple questions at you without waiting for you to answer the first.....	1-------2-------3-------4-------5-------6-------7
12 You are given a time zone telling you when you can, or cannot, take part in a personal activity.....	1-------2-------3-------4-------5-------6-------7
13 Staff switch a light on or off without consulting you.....	1-------2-------3-------4-------5-------6-------7
14 Staff respond slowly to your complaint of being in pain.	1-------2-------3-------4-------5-------6-------7
15 You are deceived into complying with an aspect of your care.....	1-------2-------3-------4-------5-------6-------7
16 Staff use threats in order to gain your compliance regarding an aspect of your care. (i.e. "If you don't sit down you'll fall and hurt yourself")...	1-------2-------3-------4-------5-------6-------7
17 You are provided with information at a rate too fast for you to understand.....	1-------2-------3-------4-------5-------6-------7
18 You are presented with choices at a rate too fast for you to understand...	1-------2-------3-------4-------5-------6-------7

Disempowerment

	Nursing Actions	Would this decrease your feelings of control Not at all Moderately Considerabl
19	Staff fail to assist you with a task you cannot do.....	1-------2-------3-------4-------5-------6-------7
20	Staff discuss your care or treatment in your presence without including you in the conversation.....	1-------2-------3-------4-------5-------6-------7
21	Staff use leading questions when presenting you with a choice. (i.e. You would like a cup of tea, wouldn't you?).....	1-------2-------3-------4-------5-------6-------7
22	Staff talk down to you as though you were a child.....	1-------2-------3-------4-------5-------6-------7
23	Staff use dominant postures whilst communicating with you (i.e. placing hands on hips).....	1-------2-------3-------4-------5-------6-------7
24	You are woken from your sleep without warning and submitted to a procedure or investigation.....	1-------2-------3-------4-------5-------6-------7
25	A television or radio is switched on or off without consulting you.....	1-------2-------3-------4-------5-------6-------7
26	Staff respond slowly to your call bell.....	1-------2-------3-------4-------5-------6-------7
27	Food or drink is removed from your table before you have finished it....	1-------2-------3-------4-------5-------6-------7
28	You are asked to do something that you cannot do because of your illness or disability.....	1-------2-------3-------4-------5-------6-------7
29	Your privacy is invaded whilst you are performing a personal activity...	1-------2-------3-------4-------5-------6-------7
30	Staff impose ward routines on you despite them not suiting your individual needs.....	1-------2-------3-------4-------5-------6-------7
31	You are assisted with an activity you can normally carry out independently.....	1-------2-------3-------4-------5-------6-------7
32	Staff wear uniforms.....	1-------2-------3-------4-------5-------6-------7
33	You are automatically addressed by your Christian name.....	1-------2-------3-------4-------5-------6-------7
34	You are blamed for actions (or failures of action) that arise from illness or disability.....	1-------2-------3-------4-------5-------6-------7
35	You are blamed for actions (or failures of action) that arise from your misunderstanding of a situation.....	1-------2-------3-------4-------5-------6-------7
36	Staff make remarks which are damaging to your self esteem (self regard).....	1-------2-------3-------4-------5-------6-------7
37	Staff make jokes at your expense.....	1-------2-------3-------4-------5-------6-------7
38	An investigation or treatment is performed without you being told what it entails.....	1-------2-------3-------4-------5-------6-------7
39	You are discouraged from making decisions regarding your planned care.....	1-------2-------3-------4-------5-------6-------7

APPENDIX 24b (cont)

Disempowerment

	Nursing Actions	Would this decrease your feelings of control Not at all Moderately Considerabl
40	You are given no choice regarding your preferred foods or drinks.....	1-------2-------3-------4-------5-------6-------7
41	Staff communicate with you at an eye level above your own.....	1-------2-------3-------4-------5-------6-------7
42	Staff fail to recognise the extent to which you wish to be involved in the planning and delivery of your care.....	1-------2-------3-------4-------5-------6-------7
43	You are discouraged from being actively involved in your care.....	1-------2-------3-------4-------5-------6-------7
44	Staff fail to gain informed consent from you prior to undertaking an investigation or procedure.....	1-------2-------3-------4-------5-------6-------7
45	Staff conduct a physical intervention without explaining their actions...	1-------2-------3-------4-------5-------6-------7
46	Questions are answered for you in your presence by a member of staff...	1-------2-------3-------4-------5-------6-------7
47	Your medication is altered without this being discussed with you.....	1-------2-------3-------4-------5-------6-------7
48	Staff only communicate with you whilst undertaking a care related task.	1-------2-------3-------4-------5-------6-------7
49	Staff insist that you eat or drink when you don't want to.....	1-------2-------3-------4-------5-------6-------7
50	Personal belongings are removed from you by staff in the interests of safety or security.	1-------2-------3-------4-------5-------6-------7
51	You are interrupted whilst communicating with another member of staff.....	1-------2-------3-------4-------5-------6-------7
52	You are not allowed enough time to complete a task.....	1-------2-------3-------4-------5-------6-------7
53	Food and drink are left out of reach despite your limited mobility.....	1-------2-------3-------4-------5-------6-------7
54	Staff avoid eye to eye contact.....	1-------2-------3-------4-------5-------6-------7
55	Your care is discussed with your relatives in your absence.....	1-------2-------3-------4-------5-------6-------7
56	Your request for help is ignored by staff.....	1-------2-------3-------4-------5-------6-------7
57	Staff leave you half way through a procedure or investigation without explaining where they're going, or how long they'll be.....	1-------2-------3-------4-------5-------6-------7
58	You are given no choice with regards to what you can or cannot wear whilst on the ward.....	1-------2-------3-------4-------5-------6-------7
59	Staff make discouraging remarks regarding your attempts to remain independent with an activity.....	1-------2-------3-------4-------5-------6-------7
60	Your bed and locker are relocated on the ward against your wishes.....	1-------2-------3-------4-------5-------6-------7

APPENDIX 24b (cont)

Disempowerment

	Nursing Actions	Would this decrease your feelings of control Not at all Moderately Considerabl
61	Staff fail to recognise your need for privacy.....	1-------2-------3-------4-------5-------6-------7
62	Staff tidy your personal belongings without asking your permission.....	1-------2-------3-------4-------5-------6-------7
63	You are spoken to in a load voice as though you are deaf.....	1-------2-------3-------4-------5-------6-------7
64	You are given no choice as to when your medication is taken.....	1-------2-------3-------4-------5-------6-------7
65	Staff disclose personal information in an area where it may be overheard by other patients.....	1-------2-------3-------4-------5-------6-------7
66	Staff forget to undertake a task you have requested.....	1-------2-------3-------4-------5-------6-------7
67	You are given no choice regarding whether or not to participate in an activity.....	1-------2-------3-------4-------5-------6-------7
68	Staff perform treatments and investigations randomly throughout the day without giving you warning.....	1-------2-------3-------4-------5-------6-------7
69	You are given no choice regarding your preferred social activities.....	1-------2-------3-------4-------5-------6-------7
70	Staff use complicated medical jargon when explaining things to you.....	1-------2-------3-------4-------5-------6-------7
71	A member of staff calls over a colleague to confirm a decision related to your care which you disagree with.....	1-------2-------3-------4-------5-------6-------7
72	Staff are noisy at night preventing you from sleeping.....	1-------2-------3-------4-------5-------6-------7
73	You are prevented from walking freely around the ward.....	1-------2-------3-------4-------5-------6-------7
74	Your request for privacy is ignored.....	1-------2-------3-------4-------5-------6-------7
75	Relevant staff fail to introduce themselves to you at the start of the shift.	1-------2-------3-------4-------5-------6-------7
76	Staff fail to provide you with specific instructions prior to undertaking relevant investigations and procedures.	1-------2-------3-------4-------5-------6-------7
77	Staff restrict their conversations to matters related to treatment only.....	1-------2-------3-------4-------5-------6-------7
78	You are restricted from leaving the ward environment.....	1-------2-------3-------4-------5-------6-------7
79	Staff fail to acknowledge the progress you have made with your health goals.....	1-------2-------3-------4-------5-------6-------7
80	You are pressured to make choices quickly.....	1-------2-------3-------4-------5-------6-------7
81	You are positioned on the ward where you cannot easily see the staff to ask for assistance.....	1-------2-------3-------4-------5-------6-------7
82	Your nurse call bell is placed out of reach.....	1-------2-------3-------4-------5-------6-------7

Disempowerment

	Nursing Actions	Would this decrease your feelings of control Not at all Moderately Considerabl
83	You are given no choice with regards to where you eat your meals.....	1-------2-------3-------4-------5-------6-------7
84	Staff leave personal items (brush, washing utensils) out of your reach whilst you are attending to your hygiene.....	1-------2-------3-------4-------5-------6-------7
85	Staff use terms of endearment (such as "love" or "sweetheart") when addressing you.....	1-------2-------3-------4-------5-------6-------7
86	You are prevented from giving your own medication.....	1-------2-------3-------4-------5-------6-------7
87	Staff dictate when you get up in the morning.....	1-------2-------3-------4-------5-------6-------7
88	Staff dictate when you go to bed.....	1-------2-------3-------4-------5-------6-------7
89	Staff play on your emotions in order to gain compliance, i.e. "If you don't do as I ask, the doctor will blame me".....	1-------2-------3-------4-------5-------6-------7
90	Staff avoid communicating with you.....	1-------2-------3-------4-------5-------6-------7
91	Staff restrict you from walking because they think you're at risk of falling.....	1-------2-------3-------4-------5-------6-------7
92	A member of staff chats with a colleague whilst assisting you with your personal care.....	1-------2-------3-------4-------5-------6-------7
93	Staff make decisions on your behalf without consulting you first.....	1-------2-------3-------4-------5-------6-------7
94	Your beliefs and ideas are rejected.....	1-------2-------3-------4-------5-------6-------7
95	Staff busy themselves with other tasks when they realise you need help.....	1-------2-------3-------4-------5-------6-------7
96	Staff scold you for not complying with an aspect of your care.....	1-------2-------3-------4-------5-------6-------7
97	Staff disregard your religious and cultural beliefs.....	1-------2-------3-------4-------5-------6-------7
98	Staff dismiss your complaints.....	1-------2-------3-------4-------5-------6-------7

Any pages, tables, figures or photographs, missing from this digital copy, have been excluded at the request of the university.

Act Frequency Technique

Act Frequency Guide

Empowerment

Would this **increase** your feelings of control?

Not at all Moderately Considerably

1---------2---------3---------4---------5---------6---------7

Act Frequency Technique

Act Frequency Guide

Disempowerment

Would this **decrease** your feelings of control?

Not at all Moderately Considerably

1--------2--------3--------4--------5--------6--------7

APPENDIX 27a

Empowering Acts in Proto 1 (Numbers 1-20)

No	Empowering Acts	Act No	Mean
1	You are treated immediately after you have complained of pain.	23	6.3500
2	Staff make themselves available after realising that you need help.	92	6.1500
3	Staff make sure that your nurse call bell is always within reach.	51	6.1000
4	A question you have asked about your care is answered clearly to facilitate an informed choice.	13	6.1000
5	Staff provide you with information regarding your future care options.	84	6.0000
6	Staff listen to what you have to say without interruption.	88	5.9500
7	Staff provide you with relevant information regarding your illness.	81	5.9500
8	Staff check to make sure that the information they have given to you has been understood.	14	5.9000
9	You receive encouraging remarks for achieving a specific health related goal.	44	5.9000
10	You are allowed time to finish food and drink before it is cleared away.	29	5.8500
11	Staff resolve a complaint that you have made.	91	5.8500
12	Staff work quietly at night to help you get to sleep.	61	5.8500
13	Staff allow you time to answer each question asked before progressing to the next.	20	5.8500
14	Staff demonstrate empathy (understanding) when discussing your problems.	90	5.8500
15	Staff make sure you are clear about the choices available to you.	15	5.8000
16	Staff seek your informed consent prior to undertaking an investigation or procedure.	11	5.8000
17	Staff make sure that your environment is suitable for you to undertake an activity independently.	56	5.8000
18	Staff explain their actions throughout an intervention or procedure.	12	5.8000
19	Your choices are respected.	19	5.7500
20	You are familiarised with the ward environment.	57	5.7500

Examples of Empowering Acts in Proto's 2-5

No	Empowering Acts	Act No	Mean
	Proto 2		
1	Staff ask your permission before approaching others who know you regarding your care.	98	5.7000
2	Staff maintain contact with you throughout the day.	82	5.7000
3	Staff promote your privacy whilst you undertake a personal activity.	31	5.7000
4	Staff explain procedures and treatments without using complicated medical jargon.	60	5.7000
	Proto 3		
1	Staff explain investigations and procedures in terms of how they will 'feel.'	97	5.4500
2	Staff use open questions when presenting you with a choice (i.e. What would you like to drink?).	94	5.4500
3	You are told which staff you will see during the day.	66	5.4500
4	You are encouraged to choose when to go to bed.	64	5.4500
	Proto 4		
1	Staff encourage you to actively participate in your care.	37	5.2500
2	Staff avoid disturbing you whilst you are sleeping.	26	5.2500
3	You are given the option of looking after your own personal belongings.	73	5.2500
4	Staff seek feedback from you regarding information which they have given.	49	5.2500
	Proto 5		
1	You are encouraged to make decisions regarding your day to day activities.	09	5.0000
2	Staff allow you to read your care plan and other nursing documents should you wish.	67	5.0000
3	You are consulted before a television or radio is switched on or off.	27	5.0000
4	Staff offer their own experiences to illustrate a point where relevant.	93	4.9500

APPENDIX 27b

Dismpowering Acts in Proto 1 (Numbers 1-20)

No	Disempowering Acts	Act No	Mean
1	Staff talk down to you as though you are a child.	22	6.3000
2	Food or drink is removed from your table before you have finished it.	27	5.9000
3	Staff busy themselves with other tasks when they realise you need help.	95	5.8500
4	Staff fail to assist you with a task you cannot do.	19	5.7000
5	Staff insist that you eat or drink when you don't want to.	49	5.6500
6	Your privacy is invaded whilst you are performing a personal activity.	29	5.6500
7	You are ordered to take part in an activity against your wishes.	03	5.6500
8	Staff disclose personal information in an area where it may be overheard by other patients.	65	5.6500
9	Staff use dominant postures whilst communicating with you (i.e. placing hands on hips).	23	5.6000
10	Staff dismiss your complaints.	98	5.6000
11	Staff conduct a physical intervention without explaining their actions.	45	5.6000
12	You are discouraged from making decisions regarding your planned care.	39	5.5500
13	You are asked to do something which you cannot do because of your illness or disability.	28	5.5500
14	Staff respond slowly to your complaints of being in pain.	14	5.5000
15	Your bed and locker are relocated on the ward against your wishes.	60	5.5000
16	Staff are noisy at night preventing you from sleeping.	72	5.4500
17	Staff make remarks which are damaging to your self-esteem (self regard).	36	5.4500
18	Staff fail to gain informed consent from you prior to undertaking an intervention or procedure.	44	5.4500
19	An investigation or treatment is performed without you being told what it entails.	38	5.4500
20	You are provided with information at a rate too fast for you to understand.	17	5.4500

Examples of Disempowering Acts in Proto's 2-5

No	Disempowering Acts	Act No	Mean
	Proto 2		
1	Your request for privacy is ignored.	74	5.4000
2	Food an drink are left out of reach.	53	5.4000
3	You are blamed for actions (or failures of action) that arise from your illness or disability.	35	5.4000
4	You are presented with choices at a rate too fast to understand.	18	5.4000
	Proto 3		
1	You are given no choice regarding whether or not to participate in an activity.	67	5.1500
2	You are given no choice with regards to what you can or cannot wear whilst on the ward.	58	5.1500
3	Questions are answered for you in your presence by a member of staff.	46	5.1500
4	Staff impose ward routines on you despite them not suiting your individual needs.	30	5.1500
	Proto 4		
1	You are restricted from leaving the ward environment.	78	4.9000
2	Staff avoid eye to eye contact.	54	4.9000
3	You are given no choice regarding your preferred foods and drinks.	40	4.9000
4	You are deceived into complying with an aspect of your care.	15	4.9000
	Proto 5		
1	A member of staff chats with a colleague whilst assisting you with your personal care.	92	4.4500
2	Staff communicate with you at an eye level above your own	41	4.4500
3	You are prevented from walking freely around the ward.	73	4.4000
4	Staff question a choice that you have made.	08	4.4000

APPENDIX 28a

Descriptives Empowerment

Descriptive Statistics

	N	Minimum	Maximum	Mean
Q23	20	3.00	7.00	6.3500
Q92	20	4.00	7.00	6.1500
Q51	20	3.00	7.00	6.1000
Q13	20	5.00	7.00	6.1000
Q84	20	4.00	7.00	6.0000
Q88	20	2.00	7.00	5.9500
Q81	20	5.00	7.00	5.9500
Q14	20	4.00	7.00	5.9000
Q44	20	4.00	7.00	5.9000
Q29	20	4.00	7.00	5.8500
Q91	20	4.00	7.00	5.8500
Q61	20	1.00	7.00	5.8500
Q20	20	4.00	7.00	5.8500
Q90	20	3.00	7.00	5.8500
Q15	20	2.00	7.00	5.8000
Q11	20	4.00	7.00	5.8000
Q56	20	2.00	7.00	5.8000
Q12	20	3.00	7.00	5.8000
Q19	20	2.00	7.00	5.7500
Q57	20	4.00	7.00	5.7500
Q98	20	3.00	7.00	5.7000
Q82	20	4.00	7.00	5.7000
Q31	20	4.00	7.00	5.7000
Q60	20	4.00	7.00	5.7000
Q24	20	4.00	7.00	5.7000
Q50	20	4.00	7.00	5.7000
Q89	20	3.00	7.00	5.6500
Q74	20	3.00	7.00	5.6500
Q39	20	3.00	7.00	5.6500
Q83	20	4.00	7.00	5.6500
Q62	20	4.00	7.00	5.6000
Q59	20	4.00	7.00	5.6000
Q28	20	3.00	7.00	5.6000
Q69	20	2.00	7.00	5.6000
Q41	20	3.00	7.00	5.6000
Q45	20	4.00	7.00	5.5500
Q16	20	3.00	7.00	5.5500
Q53	20	3.00	7.00	5.5500
Q86	20	2.00	7.00	5.5000
Q76	20	3.00	7.00	5.5000
Q38	20	3.00	7.00	5.5000
Q97	20	3.00	7.00	5.4500
Q94	20	3.00	7.00	5.4500
Q66	20	3.00	7.00	5.4500
Q64	20	3.00	7.00	5.4500
Q58	20	4.00	7.00	5.4500
Q47	20	3.00	7.00	5.4500
Q72	20	3.00	7.00	5.4000
Q10	20	2.00	7.00	5.4000
Q70	20	2.00	7.00	5.4000
Q78	20	3.00	7.00	5.3500
Q46	20	2.00	7.00	5.3500
Q96	20	2.00	7.00	5.3500
Q75	20	2.00	7.00	5.3500
Q54	20	1.00	7.00	5.3500
Q30	20	2.00	7.00	5.3500
Q55	20	2.00	7.00	5.3000

APPENDIX 28a (cont)

Descriptive Statistics

	N	Minimum	Maximum	Mean
Q25	20	3.00	7.00	5.3000
Q03	20	3.00	7.00	5.3000
Q21	20	3.00	7.00	5.3000
Q37	20	3.00	7.00	5.2500
Q26	20	2.00	7.00	5.2500
Q73	20	2.00	7.00	5.2500
Q49	20	3.00	7.00	5.2500
Q43	20	2.00	7.00	5.2500
Q40	20	2.00	7.00	5.2000
Q32	20	2.00	7.00	5.2000
Q77	20	2.00	7.00	5.2000
Q65	20	3.00	7.00	5.2000
Q35	20	2.00	7.00	5.2000
Q95	20	1.00	7.00	5.2000
Q48	20	2.00	7.00	5.1500
Q42	20	2.00	7.00	5.1000
Q17	20	2.00	7.00	5.1000
Q05	20	1.00	7.00	5.1000
Q71	20	1.00	7.00	5.0500
Q36	20	2.00	7.00	5.0500
Q07	20	1.00	7.00	5.0500
Q06	20	3.00	7.00	5.0500
Q08	20	2.00	7.00	5.0500
Q09	20	2.00	7.00	5.0000
Q67	20	2.00	7.00	5.0000
Q27	20	3.00	7.00	5.0000
Q93	20	1.00	7.00	4.9500
Q68	20	2.00	7.00	4.9000
Q87	20	1.00	7.00	4.8500
Q52	20	1.00	7.00	4.8500
Q22	20	1.00	7.00	4.8500
Q04	20	2.00	7.00	4.8500
Q85	20	1.00	7.00	4.8000
Q02	20	1.00	7.00	4.7500
Q63	20	2.00	7.00	4.7000
Q18	20	2.00	7.00	4.6500
Q79	20	1.00	7.00	4.6500
Q33	20	3.00	7.00	4.6000
Q01	20	1.00	7.00	4.5500
Q80	20	1.00	7.00	4.4000
Q34	20	1.00	7.00	3.1000
Valid N (listwise)	20			

Descriptives Disempowerment

Descriptive Statistics

	N	Minimum	Maximum	Mean
Q22	20	2.00	7.00	6.3000
Q27	20	2.00	7.00	5.9000
Q95	20	2.00	7.00	5.8500
Q19	20	1.00	7.00	5.7000
Q49	20	2.00	7.00	5.6500
Q29	20	2.00	7.00	5.6500
Q03	20	2.00	7.00	5.6500
Q65	20	2.00	7.00	5.6500
Q23	20	2.00	7.00	5.6000
Q98	20	2.00	7.00	5.6000
Q45	20	2.00	7.00	5.6000
Q39	20	2.00	7.00	5.5500
Q28	20	1.00	7.00	5.5500
Q14	20	2.00	7.00	5.5000
Q60	20	2.00	7.00	5.5000
Q72	20	2.00	7.00	5.4500
Q36	20	1.00	7.00	5.4500
Q44	20	2.00	7.00	5.4500
Q38	20	1.00	7.00	5.4500
Q17	20	2.00	7.00	5.4500
Q74	20	2.00	7.00	5.4000
Q53	20	2.00	7.00	5.4000
Q35	20	2.00	7.00	5.4000
Q18	20	1.00	7.00	5.4000
Q61	20	1.00	7.00	5.3500
Q34	20	1.00	7.00	5.3500
Q59	20	2.00	7.00	5.3500
Q01	20	2.00	7.00	5.3500
Q93	20	2.00	7.00	5.3000
Q84	20	2.00	7.00	5.3000
Q82	20	1.00	7.00	5.3000
Q71	20	2.00	7.00	5.2500
Q56	20	1.00	7.00	5.2500
Q76	20	3.00	7.00	5.2500
Q37	20	1.00	7.00	5.2500
Q63	20	1.00	7.00	5.2000
Q97	20	1.00	7.00	5.2000
Q66	20	2.00	7.00	5.2000
Q47	20	1.00	7.00	5.2000
Q26	20	2.00	7.00	5.2000
Q67	20	2.00	7.00	5.1500
Q58	20	2.00	7.00	5.1500
Q46	20	1.00	7.00	5.1500
Q30	20	1.00	7.00	5.1500
Q57	20	2.00	7.00	5.1500
Q81	20	2.00	7.00	5.1000
Q25	20	1.00	7.00	5.1000
Q94	20	1.00	7.00	5.1000
Q80	20	2.00	7.00	5.1000
Q70	20	1.00	7.00	5.1000
Q52	20	3.00	7.00	5.1000
Q09	20	2.00	7.00	5.1000
Q04	20	2.00	7.00	5.0500
Q79	20	1.00	7.00	5.0500
Q24	20	1.00	7.00	5.0500
Q11	20	1.00	7.00	5.0500
Q31	20	1.00	7.00	5.0500

APPENDIX 28b (cont)

Descriptive Statistics

	N	Minimum	Maximum	Mean
Q43	20	1.00	7.00	5.0000
Q68	20	2.00	7.00	4.9500
Q48	20	1.00	7.00	4.9500
Q16	20	1.00	7.00	4.9500
Q20	20	1.00	7.00	4.9500
Q78	20	2.00	7.00	4.9000
Q54	20	2.00	7.00	4.9000
Q40	20	1.00	7.00	4.9000
Q15	20	2.00	7.00	4.9000
Q55	20	1.00	7.00	4.9000
Q96	20	2.00	7.00	4.8500
Q69	20	1.00	7.00	4.8500
Q88	20	1.00	7.00	4.8500
Q90	20	1.00	7.00	4.7500
Q21	20	2.00	7.00	4.7500
Q87	20	1.00	7.00	4.7000
Q62	20	1.00	7.00	4.7000
Q75	20	2.00	7.00	4.6500
Q89	20	1.00	7.00	4.6000
Q13	20	1.00	7.00	4.6000
Q51	20	2.00	7.00	4.6000
Q83	20	1.00	7.00	4.5500
Q86	20	1.00	7.00	4.5000
Q92	20	1.00	7.00	4.4500
Q41	20	1.00	7.00	4.4500
Q73	20	2.00	7.00	4.4000
Q08	20	1.00	7.00	4.4000
Q05	20	2.00	7.00	4.4000
Q42	20	1.00	7.00	4.3000
Q12	20	1.00	7.00	4.3000
Q77	20	2.00	7.00	4.2500
Q10	20	2.00	7.00	4.2500
Q06	20	1.00	7.00	4.0000
Q91	20	1.00	7.00	3.9500
Q02	20	1.00	7.00	3.9000
Q50	20	1.00	7.00	3.7000
Q64	20	1.00	7.00	3.6500
Q07	20	1.00	6.00	3.5500
Q85	20	1.00	7.00	3.1000
Q33	20	1.00	6.00	2.5000
Q32	20	1.00	7.00	2.1500
Valid N (listwise)	20			

Randomisation of Numbers 1-40 using Randomiser v5. xls

1	23
2	29
3	32
4	27
5	15
6	10
7	24
8	21
9	16
10	18
11	7
12	2
13	5
14	6
15	31
16	22
17	3
18	11
19	39
20	8
21	26
22	37
23	28
24	13
25	12
26	20
27	14
28	30
29	34
30	25
31	40
32	19
33	33
34	4
35	17
36	36
37	9
38	38
39	35
40	1

APPENDIX 30a

Act Frequency Assessment

Date of completion: ____/_____/ 19__ Ward Area:_____

Patient's Age:____ Patient's Gender: ____

Instructions:- In this study, you are asked to make judgements about a series of staff actions - things that hospital staff do. Please use the three point scale provided to indicate how often you have encountered each action during your last three days on this ward (i.e. circle the relevant word).

Here:-

Never/NA means that you have *never* encountered a particular action, or that it is *not applicable*.

Sometimes means that you have *sometimes* encountered a particular action.

Often means that you have *often* encountered a particular action.

1. Do staff avoid disturbing you whilst you are resting?

Never (N/A) Sometimes Often

---

2. Do staff encourage you to actively participate in your care?

Never (N/A) Sometimes Often

It is very important that you answer the questions overleaf as honestly as possible based on your actual experiences on this ward. All information gathered is confidential and will therefore not affect your care in any way.

APPENDIX 30a (cont)

Act Frequency Assessment

Actions	How often have you encountered this action during your last three days on this ward? (Circle a relevant word)
1. Do staff make sure that your nurse call bell is within reach?	Never (N/A) Sometimes Often
2. Do staff give you encouraging remarks for achieving specific health goals?	Never (N/A) Sometimes Often
3. Do staff work quietly at night to help you get to sleep?	Never (N/A) Sometimes Often
4. Do staff provide you with relevant information about your illness?	Never (N/A) Sometimes Often
5. Do staff move your bed and locker to different parts of the ward against your wishes?	Never (N/A) Sometimes Often
6. Do staff dismiss your complaints?	Never (N/A) Sometimes Often
7. Do staff answer the questions you ask about your care clearly?	Never (N/A) Sometimes Often
8. Do staff treat you quickly after you have complained of pain?	Never (N/A) Sometimes Often
9. Are staff noisy at night stopping you from sleeping?	Never (N/A) Sometimes Often
10. Do staff attend to you without asking your permission.	Never (N/A) Sometimes Often

APPENDIX 30a (cont)

Actions	How often have you encountered this action during your last three days on this ward? (Circle an relevant word)
11. Do staff order you to take part in activities against your wishes?	Never Sometimes Often (N/A)
12. Do staff remove food or drink from your table before you have finished?	Never Sometimes Often (N/A)
13. Do staff insist that you eat or drink when you don't want to?	Never Sometimes Often (N/A)
14. Do staff invade your privacy whilst you are performing a personal activity?	Never Sometimes Often (N/A)
15. Do staff resolve your complaints?	Never Sometimes Often (N/A)
16. Do staff make themselves available after realising that you need help?	Never Sometimes Often (N/A)
17. Do staff busy themselves with other tasks when they realise you need help?	Never Sometimes Often (N/A)
18. Do staff conduct nursing tasks without explaining their actions?	Never Sometimes Often (N/A)
19. Do staff respect your choices?	Never Sometimes Often (N/A)
20. Do staff disclose private information in an area where it may be overheard by other patients?	Never Sometimes Often (N/A)

Actions	How often have you encountered this action during your last three days on this ward? (Circle an relevant word)
21. Do staff listen to what you have to say without interrupting?	Never Sometimes Often (N/A)
22. Do staff make sure that you are able to perform activities by yourself?	Never Sometimes Often (N/A)
23. Do staff check to make sure that information given to you has been understood?	Never Sometimes Often (N/A)
24. Do staff ask you to do things which you can't do because of your illness or disability?	Never Sometimes Often (N/A)
25. Do staff prevent you from making decisions about your planned care?	Never Sometimes Often (N/A)
26. Do staff give information at a rate too fast for you to understand?	Never Sometimes Often (N/A)
27. Do staff respond slowly to your complaints of being in pain?	Never Sometimes Often (N/A)
28. Do staff allow you time to finish food or drink before it is cleared away?	Never Sometimes Often (N/A)
29. Do staff show understanding when discussing your problems?	Never Sometimes Often (N/A)
30. Do staff provide you with information about your future care options?	Never Sometimes Often (N/A)

APPENDIX 30a (cont)

Actions	How often have you encountered this action during your last three days on this ward? (Circle an relevant word)
31. Do staff familiarise you with your surroundings?	Never (N/A) Sometimes Often
32. Do staff dispense treatments without telling you what they entail?	Never (N/A) Sometimes Often
33. Do staff allow you time to answer questions?	Never (N/A) Sometimes Often
34. Do staff fail to assist you with tasks you cannot do?	Never (N/A) Sometimes Often
35. Do staff make remarks which lower your self-esteem (self regard)?	Never (N/A) Sometimes Often
36. Do staff seek your permission prior to conducting nursing tasks?	Never (N/A) Sometimes Often
37. Do staff use dominant postures when talking to you (i.e. placing hands on hips)?	Never (N/A) Sometimes Often
38. Do staff explain their actions throughout nursing tasks?	Never (N/A) Sometimes Often
39. Do staff make sure that you are clear about your choices?	Never (N/A) Sometimes Often
40. Do staff talk down to you as though you were a child?	Never (N/A) Sometimes Often

APPENDIX 30b

Act Frequency Assessment

Guide to Empowering and Disempowering questions:

Empowerment	Disempowerment
1	5
2	6
3	9
4	10
7	11
8	12
15	13
16	14
19	17
21	18
22	20
23	24
28	25
29	26
30	27
31	32
33	34
36	35
38	37
39	40

Act Frequency Technique

Act Frequency Guide

How often have you encountered this action during your last three days on this ward?

Never **Sometimes** **Often**

N/A

0----------1----------2

APPENDIX 31

Means, Standard Deviations, and Kolmogorov-Smirnov Test Results from the Patient Empowerment Scale

Variable	Research Site	Sample Size (n = x)	Mean	SD	K-S (z)	Sig (p < x)
Age	1	20	82.20	6.35	0.71	0.71
	2	20	74.75	7.81	0.62	0.83
	3	21	74.43	7.56	0.70	0.71
	4	20	77.10	7.28	0.53	0.95
	5	21	74.90	8.38	0.71	0.69
	All	102	76.64	7.92	--	--
Act Frequency - Empowerment	1	20	23.15	7.30	0.86	0.45
	2	20	28.25	7.83	1.06	0.21
	3	21	34.19	5.17	0.67	0.61
	4	20	30.95	5.51	0.81	0.53
	5	21	30.81	6.42	0.45	0.99
	All	102	29.53	7.37	--	--
Act Frequency - Disempowerment	1	20	7.45	5.92	0.72	0.68
	2	20	4.4	3.60	0.68	0.75
	3	21	2.57	2.73	1.11	0.17
	4	20	4.40	4.12	0.76	0.61
	5	21	5.14	5.83	1.06	0.21
	All	102	4.77	4.80	--	--
Patient Empowerment Scale	1	20	15.70	8.37	0.51	0.97
	2	20	23.85	10.01	0.74	0.64
	3	21	31.62	6.56	0.76	0.61
	4	20	26.55	8.41	0.81	0.53
	5	21	25.67	10.63	0.80	0.54
	All	102	24.75	10.16	--	--

KEY:- SD = Standard Deviation; K-S (z) = Kolmogorov Smirnov (z).

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