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A meta-synthesis of qualitative studies exploring men's sense of masculinity post prostate cancer treatment

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Abstract

Background: There has been little psychosocial research concerning men's adaption to prostate cancer and treatment-related sexual dysfunction. Qualitative studies have explored men's sense of self following treatment, but the data has yet to be synthesised.

Objective: To report a meta-synthesis of qualitative studies exploring men's sense of masculinity following treatment for prostate cancer.

Interventions/Methods: Six databases were searched to identify relevant studies conducted and published between Jan 1990 and Aug 2016. Titles and abstracts were reviewed by two reviewers. Studies that met the inclusion criteria were selected and reviewed for quality. The extracted data was then synthesised.

Results: A total of 14 studies met the inclusion criteria and passed the quality assessment. The meta-synthesis found that men's sense of masculinity diminished following treatment for prostate cancer. Impotence, incontinence, the loss of control and physical changes caused psychological stress. Underpinning these factors were cultural influences and dominant ideals of what it means to be a man.

Conclusions: Men had entrenched ideas about what manhood entailed. The review found that men's sense of masculinity was diminished post treatment for prostate cancer. They felt that they could not exercise their manliness because of the side effects associated with prostate cancer treatment.

Implications for Practice: More support and communication throughout the process is required to better inform patients of the outcomes of treatment. Additionally, it would be beneficial to have open forums through which to encourage men to talk frankly about their masculine identities.

Introduction

Prostate cancer is the most common cancer in men.¹ An estimated 1.1 million men worldwide were diagnosed with prostate cancer in 2012, accounting for 15% of the cancers diagnosed in men.² Men aged 50 and over, men with a family history of prostate cancer, and black men are more at risk of contracting prostate cancer.¹ Prostate cancer incidence varies worldwide; the rates are highest in Australia/New Zealand and North America, and in Western and Northern Europe, because the practice of prostate specific antigen [PSA] testing and subsequent biopsy have become widespread in these regions.² The lowest rate was in the South East Asia Region.³

Over 330,000 men in the United Kingdom [UK] are both living with prostate cancer and after prostate cancer treatment.¹ A study conducted by Prostate Cancer UK¹ on behalf of the Department of Health found that while many men can live excellent lives after prostate cancer, some men do have problems that can have a significant impact on their lives and how they feel.¹ The effects from treatment are known to cause tiredness, urine leakage, hot flushes, sweats, impotence and infertility.⁴

Although these issues may impact on their quality of life, men generally suppress vulnerability, refusing to acknowledge weaknesses, reluctant to seek help, preferring to be in control both physically and emotionally, and have interest in, and focus on, penetrative sex, displaying aggressive behaviours which may be linked to dominance⁵. These conceptual ideologies of masculinity have resulted in a growing awareness of the impact treatment has on their sense of masculinity.

Evidence in the literature reveals that men affected by prostate cancer may view their masculine identity as different to that of men who are unaffected.^{6,7} Research conducted on this issue is mixed. A study undertaken by Fergus et al⁸ found that men treated for prostate cancer were negatively affected in terms of their masculine identity, but also in their sense of being a man. On the other hand, Chapple and Ziebland⁹ reported that some of the men in

their study, aged 50 and above, felt that their sense of masculinity was not affected. Many studies explored men's quality of life following treatment for prostate cancer^{10,11} and reported good quality of life outcomes in respect of their lifestyles. These studies also reported that their masculine identities were not substantially affected by the treatment. However, Steginga et al¹² found the opposite, in that young men felt that their masculine identities were eroded.

Psychosocial research concerning men's adaption to prostate cancer and treatment-related sexual dysfunction has been sparse.⁸ Symptoms, such as erectile dysfunction [ED], incontinence, and tiredness, challenge the very fundamentals of masculine identity, changing how men perceive themselves as sexual beings and as men in society.¹³ Western societies revolve around socially constructed concepts of patriarchy that enable men to have privilege.¹⁴ Members of these societies who identify as men both receive the benefits of patriarchy and struggle to define what masculinity is within that social system.¹⁴ Hegemonic masculinity suggests that men comply with social norms of masculinity by subordinating women and marginalising men who fall outside of its scope.¹⁴ Whilst many men will not actually attain or maintain culturally valued modes of masculinity, they nonetheless benefit through complicity with dominate ideals.¹⁵ As hegemonic masculinity values domination, aggressiveness, competitiveness, sexual and athletic prowess, control and stoic emotional display,¹⁶ masculinity is arguably incompatible with illness.¹⁷ The side effects of treatment for prostate cancer are antithesis to the principles of hegemonic masculinity.

Given the limited evidence in this area, this review through a meta-synthesis will identify men's sense of masculinity following treatment for prostate cancer. The findings will add to the body of knowledge, where there is little known, about how men conceptualise their masculine identities post prostate cancer treatment. This study may be useful to policy makers and could aid in developing strategies and interventions tailored to meeting men's needs.

Purpose

Qualitative studies can provide the direct experiences and views of prostate cancer survivors. This enabled the authors to elucidate trigger points in the recovery period where support and communication are vital. The National Cancer Survivor Initiative [NCSI] defines two of these trigger points as occurring immediately after treatment, and then, secondly, living with the consequences of treatment.¹⁸ Prior to the inception of the NCSI in 2007, most of the focus in terms of improving cancer services was on the diagnosis and treatment of cancer.¹⁹ In contrast, one of the main aims of the NCSI was to develop services to support and enable cancer survivors to live as healthy and as good a quality of life for as long as possible.¹⁹ A cultural shift has occurred, and there is a greater focus on recovery, health and wellbeing.¹⁸ Existing models of survivorship care concern holistic assessment, information provision, and personalised care planning.¹⁸ The recommendations in this analysis can therefore be adapted and developed in order to inform and improve aftercare outcomes. We have included samples across different ethnicities and sexualities so as to attain a range of data that is not limited to a particular demography. This allowed us to decipher if the experiences of one subset group was different, or similar, to another. A qualitative meta-synthesis is an approach for synthesising findings across qualitative studies. In using this method, researchers can garner any trends in collected data, advise on improvements for clinical practice, and highlight areas in need of further research, thereby deepening the understanding of the contextual dimensions of health care.²⁰

Methods

In this synthesis, we aim to identify (a) how survivors of prostate cancer view their masculinity and sexuality in light of being treated, (b) to discern how symptoms caused by treatment have posed a threat to their masculinity, and (c) to elucidate this evidence into advising on the best possible course of action for health care practices in assisting and supporting prostate cancer survivors. As outlined by Sandelowski et al,²¹ our method

entailed a meta-synthesis of findings across studies conducted by different investigators. The systematic method was adapted from Gewurtz et al²² and incorporated the following steps: (a) identify relevant research question, (b) set inclusion and exclusion criteria, (c) identify and retrieve studies, (d) assess the quality of the studies, (e) synthesise findings from across the studies. The model by Gewurtz was subsequently used to conduct this review.

Inclusion and Exclusion criteria

This review focused solely on academic qualitative studies, primarily focus groups and individual interviews, from January 1990 to August 2016, in order to capture as much data as possible and discern any change in trends. A preliminary search found no evidence pre-1990. The authors devised their inclusion perimeters as: studies published in any country, peer reviewed research, and English language publications. Study participants were male who had been treated for prostate cancer.

As per qualitative meta-synthesis methods, the exclusion criteria were quantitative papers, mixed methods papers, editorials, abstracts, opinion pieces, conference extracts, review papers, dissertations, secondary analyses, meta-syntheses, literature reviews, non-English language papers, surveys, questionnaires, studies involving families, partners and loved ones, studies that were pre-therapy, or incorporated other types of cancer.

Search strategy

The search strategy was developed in conjunction with a librarian, and included keywords that would be transferable across a number of databases. Some of these keywords included truncation to allow for a wider gauge of results. Original academic research articles were sourced using the keywords *prostat* neoplasms OR prostat* cancer AND Man* OR men OR masculin* OR male* AND Identit* OR self* AND aftercare OR needs OR experience* AND impotence OR dysfunction*. Once finalised, the search terms were input on CINAHL, Cochrane, Medline, PsycINFO, PubMed and Web of Science.

A total of 510 articles were identified as being potentially appropriate for this review. The titles and abstracts were reviewed by the researchers. Following this, 471 papers were rejected for failing to meet the inclusion criteria. The remaining articles were extracted for full-text review. A further 9 were excluded for failing to meet the inclusion criteria, leaving 12 papers. Both authors reviewed the reference lists of the 12 papers, and a further 2 papers were handpicked because they met the inclusion criteria. A total combination of 14 studies underwent quality appraisal as described below. See Figure 1 for the full review process.

Quality Appraisal

All 14 studies selected for full-text review were appraised by the authors using the criteria from the validated Critical Appraisal Skills Programme [CASP]. The CASP tool assesses the usefulness of qualitative studies through ten questions.²³ These appraisal questions consisted of the following: (A) was there a clear statement of aims? (B) Is a qualitative methodology appropriate? (C) Was the research design appropriate to address the aims of the research? (D) Was the recruitment strategy appropriate to the aims of the research? (E) Was the data collected in a way that addressed the research issue? (F) Has the relationship between researcher and participants been considered? (G) Have ethical issues been taken into consideration? (H) Was the data analysis sufficiently rigorous? (I) Is there a clear statement of findings? (J) How valuable is the research? Both reviewers assessed each study separately and provided a total rating out of 10 (Yes=1, No=0). These ratings were then combined to give an average score as displayed in Table 1. The letters mentioned above correspond with the letters listed in the table. Studies were to be grouped into three categories: 1-5 = low quality, 6-7 = medium quality, 8-10 = high quality. All of the studies rated as high quality and so were acceptable for analysis.

Table 1. Methodological Assessment

Study	Criteria											Total	%
		A	B	C	D	E	F	G	H	I	J		
Arrington (2003)		Y	Y	Y	Y	Y	N	Y	Y	Y	Y	9/10	90
Chapple & Ziebland (2002)		Y	Y	Y	Y	Y	N	Y	Y	Y	Y	9/10	90
Ervik & Asplund (2012)		Y	Y	Y	Y	Y	N	Y	Y	Y	Y	9/10	90
Fergus <i>et al</i> (2002)		Y	Y	Y	Y	Y	N	N	Y	Y	Y	8/10	80
Gannon <i>et al</i> (2010)		Y	Y	Y	Y	Y	N	Y	Y	Y	Y	9/10	90
Grunfield <i>et al</i> (2013)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10/10	100
Hanly <i>et al</i> (2014)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10/10	100
Hedestig <i>et al</i> (2005a)		Y	Y	Y	Y	Y	Y	N	Y	Y	Y	9/10	90
Hedestig <i>et al</i> (2005b)		Y	Y	Y	Y	Y	N	Y	Y	Y	Y	9/10	90
Kelly (2008)		Y	Y	Y	Y	Y	N	Y	Y	Y	Y	9/10	90
Letts <i>et al</i> (2010)		Y	Y	Y	Y	Y	N	N	Y	Y	Y	8/10	80
Maliski <i>et al</i> (2008)		Y	Y	Y	Y	Y	N	Y	Y	Y	Y	9/10	90
Oliffe (2005)		Y	Y	Y	Y	Y	N	Y	Y	Y	Y	9/10	90
O'Shaughnessy & Laws (2009)		Y	Y	Y	Y	Y	N	Y	Y	Y	Y	9/10	90

Data extraction and synthesis of findings

Noblit and Hare's meta-ethnographic approach was adopted to analyse and synthesise the data.²⁴ Each study was read and re-read independently by the authors to gain an overall understanding of the study's findings. The characteristics of these studies can be seen in Table 2. Both authors met to discuss theme formation and to reach a consensus on what themes were clearly identifiable. The following process was undertaken together by both authors. Data were extracted from the studies and amalgamated into a table. The tabulation of the qualitative findings within a single matrix supported the fusion of narrative data.²⁵ A meta-ethnographic approach enabled the authors to develop a greater understanding from the synthesis of findings across the studies.²⁴ This entailed identifying whether data corresponded, contrasted, or identified different aspects of the topic,²⁴ providing a basis on which to establish commonalities arising from the studies by establishing first order concepts, second order themes, and the construct of a third order synthesis.²² Both authors discussed the emerging concepts with each other in order to develop more refined second order themes. After completion, these concepts were aggregated and grouped into 8 subthemes. In the final stage, both authors reflected on and discussed these 8 subthemes further, dividing them up under 4 main themes to form the third order synthesis. Table 3 displays these 8 subthemes, and their corresponding themes, and to which studies they apply.

Table 2. Characteristics of the Qualitative Studies

Title	Author (s), year, country	Aim	Methods	Sample size	Results
"I don't want to be an artificial man": narrative reconstruction of sexuality among prostate cancer survivors.	Arrington, M I. (2003), USA	To explore the ways in which prostate cancer survivors constructed stories of their illness experiences and consequences for their sexual identities.	Individual interviews	16 men	A choice between a treatment option, and the post-treatment changes in survivors' sex lives, whether described as the end of the sex life or the beginning of a modified one.
Prostate Cancer: embodies experience and perceptions of masculinity	Chapple, A., & Ziebland, S. (2002), UK	To look at the way in which prostate cancer and its treatment affects men's bodies, their roles and sense of masculinity.	Individual interviews	52 White, Black & Indian men aged 50-85	Many men are reluctant to consult doctors. Side effects of treatment reduced some men's sense of masculinity.
Dealing with a troublesome body: A qualitative interview study of men's experiences living with prostate cancer treated with endocrine therapy.	Ervik, B., & Asplund, K. (2012), Norway	To show how men with prostate cancer experience bodily changes and how these alterations influence daily life.	Individual interviews	10 men aged 58-83	Experiences of men with prostate cancer may lead to feelings of loss of identity on an existential level.
Sexual dysfunction and the preservation of manhood: experiences of men with prostate cancer	Fergus, K D., Gray, R E., & Fitch, M I. (2002), Canada	To explore the experiences of men living with sexual dysfunction as a consequence of having been treated for prostate cancer.	Individual interviews	18 Caucasian heterosexual, black, and gay men	Men's performances of sexuality and masculinity were highly interwoven; the loss of sexual functioning constituted a focal disruption for participants; and in some instances, posed a significant

					threat to their masculine identities.
Re-constructing masculinity following radical prostatectomy for prostate cancer	Gannon, K., Guerro-Blanco, M., Patel, A., & Abel, P. (2010), UK	To identify the way in which prostate cancer survivors constructed their masculinity.	Individual interviews	5 British/Irish, 1 African, & 1 Asian heterosexual men aged 58-70	Stereotypically masculine qualities of emotional control and rationality were drawn on in describing their reaction to the diagnosis and treatment of cancer but they also experienced a new-found sense of physical vulnerability.
"The Only Way I Know How to Live Is to Work": A qualitative study of work following treatment for prostate cancer	Grunfield, E A., <i>et al.</i> (2013), UK	To explore the meaning of work among prostate cancer survivors and to describe the linkages between masculinity and work following prostate cancer treatment	Semi-structured interviews	50 White, Black & Asian/Chinese men	A degree of embarrassment and concern about residual side effects and whether these would present a challenge within the workplace was apparent.
The struggle towards 'the New Normal': a qualitative insight into psychosexual adjustment to prostate cancer.	Hanly, N., Mireskandari, S., & Juraskova, I. (2014), Australia	To explore factors influencing psychosocial adjustment, self-perception, and unmet information and support needs of prostate cancer patients and their partners.	Semi-structured interviews	20 heterosexual men & 1 gay man aged 50-69	Coming to terms with the significant impact of treatment had involved making lifestyle changes, coping with emotional struggles and striving to accept and integrate their post-treatment "new normal" self and sexual life.

Living after radical Prostatectomy for localized prostate cancer: A qualitative analysis of patient narratives.	Hedestig, O., <i>et al.</i> (2005), Sweden	To illuminate the experience of living after radical prostatectomy for localized prostate cancer.	Individual interviews	10 men aged 61-69	Men suffered from worry, anxiety, and distress, and longed for life as they had lived it prior to diagnosis.
Living after External Beam Radiotherapy of Localized Prostate Cancer	Hedestig, O., <i>et al.</i> (2005), Sweden	To gain a deeper understanding of how men live after external beam radiotherapy of localized prostate carcinoma.	Individual interviews	10 men aged 61-69	The experience of living after EBRT could be understood as striving to reach a sense of control and becoming reconciled with a new way of life.
Changed men: the embodied impact of prostate cancer	Kelly, D. (2008) UK	To illustrate how the men confronted existential threat alongside physical changes, and the way each change resulted in a new outlook on life and its priorities following cancer.	Individual interviews	14 men including 5 heterosexual White men, 3 Black men, & 1 gay man	Men questioned their priorities in life, and focused on the future with new insights and hopes. Some men reflected on their future in a fatalistic way and seemed to accept that they would succumb to their cancer eventually.
Exploring the Impact of Prostate Cancer on Men's Sexual Well-Being.	Letts, C., Tamlyn, K., & Byers, S. (2010), Canada	To better understand the impact of prostate cancer and its treatment on a broad range of aspects of men's sexual well-being.	Individual interviews	19 heterosexual men aged 49-74	Men described negative changes that were distressing to them in erections, orgasmic consistency, and sexual satisfaction, and believed their sex lives were over.
Renegotiating masculine identity after prostate cancer treatment	Maliski, S L., Rivera, S., Connor, S., Lopez, G., Litwin, M S. (2008), USA	To develop a descriptive model of how low income Latino and African American men attribute	Semi-structured interviews	60 Latino & 35 African American/Black men	Men constructed masculine identities that were influenced by early experience, challenged by several factors

		meaning and adapt to prostate cancer treatment-related symptoms relative to masculine identity.			including prostate cancer treatment, and underwent a renegotiation process that resulted in the maintenance of their identity as men.
Constructions of masculinity following prostatectomy-induced impotence.	Oliffe, J. (2005), Australia	To explore participants' experiences of impotence following prostatectomy	Semi-structured interviews	15 Anglo-Australian heterosexual men aged 46-74	Participants rationalised forgoing potency as a way of living longer. Diverse complex reactions accompanied impotence.
Australian men's long term experiences following prostatectomy: A qualitative descriptive study.	O'Shaughnessy, P., & Laws, T. (2009-10), Australia	To describe men's long term recovery following prostatectomy for the purpose of identifying the effects of unresolved post surgical morbidity.	Focus group interviews	11 men	Incontinence and impotence were a major source of emotional tension affecting the men's social interactions and sense of self-worth.

Table 3. Subthemes identified across studies

Themes	Subthemes	Arrington Chapple		Ervik	Fergus	Gannon	Grunfield Hanly		Hedestig	Hedestig	Kelly	Letts	Maliski	Oliffe	O'Shaughnessy
		2003	2002	2012	2002	2010	2013	2014	2005a	2005b	2008	2010	2008	2005	2010
Impact on Manhood	Gender Identity	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓
	Impotence	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Physical Effects	Incontinence	✓	✓	✓			✓	✓	✓	✓	✓		✓		✓
	Physicality		✓	✓		✓			✓		✓		✓		✓
Mental Wellbeing	Emotive Responses		✓	✓			✓	✓	✓	✓	✓			✓	✓
	Fears & Anxieties	✓		✓	✓	✓	✓	✓	✓	✓		✓	✓		
Psychosocial Adjustment	Support	✓	✓	✓			✓	✓	✓	✓		✓	✓	✓	✓
	Coping		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	

Findings

An analysis of the findings yielded 8 subthemes. These were grouped appropriately into 4 major themes: Impact on Manhood, Physical Effects, Mental Wellbeing and Psychosocial Adjustment. The process of aligning these themes, and their accompanying subthemes, into a theoretical model can be seen in more detail in Figure 2. In essence, there are three theoretical stages that the men went through in renegotiating their masculine identities. The first two themes concerned the physical alterations made to their bodies. These changes subsequently affected their mental wellbeing. Finally, each man adjusted or overcame their issues by developing various coping strategies. Each theme is discussed in detail using the data extracted from the qualitative studies and supported by quotations where necessary.

Impact on Manhood

Men in this meta-synthesis experienced threats to their masculinity following treatment for prostate cancer. The subthemes for impact on manhood were gender identity and impotence.

Gender Identity

The resulting physical and mental alterations that were brought on by the treatment challenged the fundamental principles of what is considered to be masculine. Hedestig et al²⁶ determined that there was a change in self-esteem with regard to masculinity, and a feeling of shame. Chapple et al^{9(pp826)} found that the men interviewed deemed it as not being 'macho' to seek help for health problems, and were therefore reluctant to consult doctors. Age, health status, and values all played a role in how prostate cancer survivors viewed themselves⁶. Men's bodies were now less valuable in a social and personal sense as they failed to conform to many conventional standards of masculinity²⁷. O'Shaughnessy & Laws²⁸ noted that there was frustration at establishing a new sexual relationship. In another study,

African American/black men talked of sexual prowess and maintaining a front of strong silence and indifference.²⁹ This study also identified emotional strength as a valued masculine attribute - to face it like a man and maintain a public masculine image by talking as if they were still sexually active.²⁹ Masculinity was associated with being a breadwinner.⁹ Independence, potency, and control are major components of masculinity - sickness threatened independence and thus masculine identity.⁶ This led one survivor to liken himself to "a baby".^{6(pp47)} Masculine restraint and an implicit stoicism were favourably contrasted with female emotionality.⁵ However, the side effects of endocrine therapy led some men to suffer side effects associated with feminisation.³⁰ These included hot flushes and breast growth.³⁰ In their study, Chapple & Ziebland⁹ found that hormonal treatment resulted in changes to body shape, hot flushes, mood changes, enlarged breasts and sickness. Being healthy and demonstrating success and strength in overcoming their illness was seen as a return to masculine norms.³¹ Some men began to question fundamental assumptions about masculinity and life itself.²⁷ Letts et al³² interviewed men aged 49 and above, and most believed that the sexual changes they experienced had no impact on their masculinity.

Impotence

For the majority of men in the studies, ED and the loss of libido were the most distressing changes and the worst side effects they had experienced.^{6,27,30,32} Problems ranged from decreased ejaculations, less intense orgasms, the inability to maintain erections sufficiently for penetration, and/or a diminished libido.⁸ The loss of sexual function and potency led to the feeling of having been left "mutilated,"^{7(pp681)} "incomplete,"^{29(pp1616)} "unmanly, invisible or worthless."^{28(pp104)} Sexual performance was viewed as a symbolic expression of manhood, verifiable through procreation, the provision and receipt of erotic pleasure, the objectification of sexually desired others and competition with other men.⁸ Sexuality was described by the men in one study^{8(pp310)} as an incredibly powerful, primal desire, likened to an addiction. Sex is in the mind, and the bloodstream-brain response played a crucial role in upholding their experience of themselves as men.⁸ Thus, they considered themselves to be dead sexually if

they were unable to exercise their masculinity.⁸ Gannon et al⁵ found that there was an acute and ongoing sense of loss to engage in penetrative sex and to react to erotic stimuli. The waning ability to maintain an erection detracted from the patients' manliness.⁷ Some were unconcerned, some felt frustrated or angry, others experienced depression.³² One man had made a suicide plan.³² There was anger and embitterment due to lack of preparedness.⁸ Men who reported poor communication and a lack of response from their physicians were left distressed and angry about the lack of information regarding sexual changes they might experience following treatment.³² One man felt he was a eunuch and not a man anymore.³⁰ Another believed he now held a hermaphrodite status.⁹ Some were willing to accept ED if that was the price to pay for prolonging their lives.³⁰ However, for others the re-establishment of erectile function was a significant aspect of recovery.³³ This meant acknowledging ED and using aids and alternative means of intimacy.²⁹

Some men stated that a decline in sexual desire and arousal was seen as a stumbling block, hindering possible future relationships, and having a negative impact on any current relationships.³² Moreover, a reduction in the length of the penis and infertility due to dry ejaculations⁵ created a sense of inferiority over not quite measuring up compared to other men.⁸ This was found to be even more pronounced for gay men whose sexual partners were sexually functioning men with whom they could visibly compare.⁸ The inability to sustain an erection reduced confidence²⁸ and an unwillingness to expose one's waning sexual function.²⁶ Unlike previously where erections were spontaneous, men now consciously thought about what was happening during arousal and about how long their erections would last.³⁴ Their opinions consisted of not feeling like a "whole man," a "weak man," "half human," "cut down", and "mutilated."^{7(pp681)} Life came with a price tag and the price to be paid was sexual functioning.⁸ Some were willing to accept ED if that was the price to pay for prolonging their lives.³⁰ Impotence was accepted by men with advanced age whose sexual prowess had diminished with age,³³ and so ED was viewed as a gradual transition.²⁹ They characterised themselves as sexual beings who defined sex in ways that did not require an

erection.⁶ Although older men deemed it no longer a problem, there was agreement that it was a problem for younger men.⁹ Young manhood was seen as the time when sexual performance was critical, both as an enactment of masculinity and to conceive children, therefore treatment was seen as accelerating age by ending youth.²⁹ However, for older men impotence was accepted by affirming that the task of fathering a child had been achieved.²⁷ Latino men expressed acceptance of ED and adjusted to not having intimate relations easier than that of both African American/black men and white men.²⁹

Physical Effects

Following analysis, the theme of physical effects included incontinence and physicality, both of which affected men's bodies.

Incontinence

For men, suffering from incontinence represented a loss of control⁶ and thus the male role was threatened by these urinary symptoms.⁹ Re-occurring problems involved loss of control of the stool reflex and leakage from the bowel,²⁶ poor urine stream, hesitancy, terminal dripping, retention and uraemia.⁹ Anal bleeding was also quite common.⁹ Men described themselves as "being like a baby", requiring infantile dependence on family members or loved ones,^{29(pp1614)} needing diapers,³⁰ and having to wear pads and dark clothing to disguise wet patches and leakage-related embarrassment,³⁴ making it impossible to have a normal social life.⁷ Losing control of urine was seen as disrespectful to others who witnessed the problem and played heavily on one man's psyche.²⁸ There was constant checking to make sure urine had not leaked into their clothes.³¹ Men were left acutely embarrassed and anxious.²⁸ There was worry that the odour would be smelt⁷ and that urine leakage could also occur during arousal or at orgasm.³⁴ Fear of involuntary leakage during sexual activity made it impossible to even think about sex.²⁹ Ultimately, the condition was summed up as an "abnormal masculine state" that impacted on their lives.^{28(pp102)}

Physicality

Chapple & Ziebland⁹ described the male role as being threatened by a lack of energy. Study participants stated that after treatment for prostate cancer, they experienced tiredness, limpness, and decreased muscle strength.³⁰ Men reported that everything was going in “slow motion.”^{30(pp107)} Their waning physical strength was seen as a loss and this culminated in them experiencing grief as a result.⁷ In their study, Maliski et al²⁹ found that physical strength allowed men to feel competent. Work was a venue in which physical strength was displayed, especially for Latino men.²⁹ Treatment affected their ability to work.⁹ Prostate cancer was thus a challenge to men's sense of being a man by limiting their ability to provide for their families, and to feel strong and independent.²⁹ The loss of physical strength contributed to feeling impotent.²⁹ Moreover, men became sedentary and less active, leading to an increase in body weight.²⁸ Others had to give up the sport they once enjoyed.⁹ Some were reduced to small jobs around the house that were ascribed to as women's work.²⁹ A new attentiveness to their bodies arose,³⁰ and every little itch became a subject for insecurity which often caused worries that their cancer had returned and had spread.³⁰ The body was now viewed as a valuable commodity that had to be maintained.²⁷ There was an increased vigilance and attention to self.⁵ Men developed a newfound sense of vulnerability and a greater sense of caution.⁵

Mental Wellbeing

In this analysis, the main theme of mental wellbeing encompassed emotive responses and fears and anxieties, and how these impacted on men's psychological wellbeing.

Emotive Responses

After treatment for prostate cancer, men experienced a wide range of thoughts, feelings, and emotions. For some, there was difficulty comprehending they had cancer,³⁰ or a sense of

ambiguity at having survived.²⁷ This uncertainty often gave way to the reality of their new situation. There was a general opinion that their quality of life had changed for the worst,³¹ and a longing for life as experienced before the diagnosis.⁷ Most men were reluctant to share their feelings with others,³² and kept their innermost thoughts to themselves.⁷ One study noted that men did not want to appear weak in the eyes of their peers.³¹ Consequently, a sense of being alone became prevalent,⁷ with men feeling emotionally isolated²⁷ and alone in their decision making.²⁶ Their self-perception and self-esteem were significantly affected, leading to feelings of inadequacy and embarrassment due to urinary leakage, erectile dysfunction and smaller genitalia.³⁴ Some men felt they should have received more information about side-effects, the likelihood of reoccurrence and available management strategies.³⁴ One man said that his consultant's attitude made him feel terrible⁹. Another likened himself to being treated like "a piece of meat", and believed he was given false hope.^{32(pp503)} Hedestig et al²⁶ noted that the men he interviewed felt a loss of control and exposure from the side effects of the treatment. Chapple et al⁹ found that the men in their study were unable to mentally cope with the lack of control. This resulted in destructive behaviour such as drinking alcohol excessively.³⁴ Additionally, men also experienced a sense of grief and bewilderment over why it had to be them.⁷ Some men constantly dwelled on their issues, which led to the development of clinical depression,^{8,28} expressing considerable anger and frustration toward the medical system for failing them.²⁷ Men with progressive disease reported greater emotional impact and more difficulties adjusting to their new condition.³⁴ Despite the severe emotional distress, Kelly²⁷ observed that, having survived, gratitude was often expressed when the fates of those not so fortunate was considered. Oliffe³³ adds to this notion by reporting that the men in his study were glad to be alive.

Fears & Anxieties

Arrington⁶ established that treatment of prostate cancer scared men because of changes to their identity. A plethora of negative thoughts often accompanied this transition. Most

experienced “shock, anger, depression, disappointment, a sense of loss,”^{26(pp7)} “frustration and despair.”^{32(pp499)} Thoughts about the future were associated with “worry, anxiety, or sadness.”^{7(pp683)} Being affected by prostate cancer evoked fears about whether the disease would end their life,²⁶ or explode to other parts of their body,³⁰ perpetuating a feeling of gloominess inside²⁶ and anxiety at the possibility of dying alone.³¹ Maliski et al²⁹ found that there was the added fear of losing their partner. This fear of being alone also encompassed single men. In one study, a gay man was troubled by the idea of disappointing a prospective lover, and becoming the object of ridicule and slanderous gossip.⁸ Thus, there was a great reluctance to share their diagnosis and treatment with their peers for fear of embarrassment or stigmatisation, and concern about appearing to be seeking sympathy or causing embarrassment to others.³¹ The mere thought of disclosure, for some, entailed confronting a wall of socially constructed shame.⁸ For single men, there was a fear of discovery by becoming unavailable both socially and sexually.⁵ Hedestig et al²⁶ found that issues were kept in the men’s own secret area. Admittance of their problems was portrayed as a “coming out” experience.^{8(pp311)}

Psychosocial Adjustment

The last theme dealt with men coming to terms with their new selves, and how this changed their outlook on life. The two emerging subthemes were support and coping.

Support

Men sought empathy and understanding from their spouses/partners.²⁸ Partners were supportive in terms of diagnosis and treatment.³⁴ Oliffe³³ noted that some men required support from their partners to consciously break from the ideals of hegemonic masculinity. Their partner’s lack of interest or desire for sexual relations lessened the pressure on them to perform.³² Those wives who understood and did not expect or demand sex were given increased respect by their partners.²⁹ There was mutual agreement that it was more

important to take care of the cancer than worry about their sex lives.⁶ Despite this, they were concerned about how their partners would be affected by the changes,³⁴ and were aware of the stress experienced by their loved ones and were appreciative of their support.³⁰ Arrington⁶ described this dependence on wives, children and friends as oaks who needed to lean on others to prevent themselves from falling. Men reported great trust in doctors who provided them with adequate information and ample opportunity to ask questions.³⁴ Seeing the same physician built confidence.⁷ By disclosing their diagnosis, Grunfield et al³¹ discovered in their study that men had received advice and support from others who had undergone similar experiences or had second hand knowledge to pass on. Some men expressed a need to communicate with other prostate cancer patients to share their experiences.⁷

Coping

Men employed a variety of coping mechanisms to overcome the psychological aftermath of treatment. They tried to keep dark thoughts away, avoided sitting still, used humour, often gallows humour, maintained a positive attitude, and tried to strike a balance between worrying about the future and their daily lives.³⁰ Being in nature or working physically was a strategy to reaching an inner peace,²⁶ as were positive lifestyle changes.³⁴ Some sought to strengthen their bodies as much as possible after cancer through physical fitness, seen as a way of reclaiming vestiges of a former self.²⁷ As too was a change in diet, eating healthily and taking vitamin supplements,²⁷ exercising and going to a health provider more regularly.²⁹ Grunfield et al³¹ observed that men hid their physical impairments to maintain and present a strong self – a need to appear as capable of coping and emotionally unaffected. As a result, social situations were avoided,⁵ especially in new social interactions with the potential for intimacy.³⁴ Some men were able to explore new sexual horizons.⁸ Expressing sexuality was done through touch rather than penetration.³³ The Latino men in the study by Maliski et al²⁹ talked about not seeing themselves as dominant over female partners, but having respect for others, and being honest and helpful. Strength was redefined, in their eyes, as having had

cancer, undergoing treatment and surviving.²⁹ Fathers stated that being a good example to their children was more important than macho bravado²⁹ and this was a way of coping following treatment. Other men tried to emphasise their former masculine identities,²⁷ or spent time alone and not thinking about the illness.⁷ By reflecting on the former self, or considering the fates of other men, they came closer to comprehending their own situation.²⁷ Hedestig et al²⁶ solemnly noted that the men interviewed were focused on living in the present, leaving what had happened in the past behind, and not making far-reaching plans for the future.

Discussion

This meta-synthesis aimed to explore men's sense of masculinity following treatment for prostate cancer, capturing data that were attributed under four themes and eight subthemes to form an integrated look beyond the analysis offered by any single qualitative study alone. The current review highlights how cultural interpretations of masculinity inform how men act and behave in response to the outcome of treatment. Their changes in physical condition led to mental and emotional anguish which men confronted and had to adapt to, and cope with, in varying manners.

Hegemonic masculinity is described as a way in which male privilege is reinforced by supporting conformity to an idealised version of masculinity.¹⁴ Hegemonic masculinities work to oppress women and other men through a range of ideals and practices such as competition, aggressiveness and heterosexuality.¹⁵ In her essay on hegemonic masculinity and the cultural construction of erectile dysfunction, Potts³⁵ describes how the erect penis, through its representation of the phallus at a symbolic level, is the essence of male sexuality. Failure of the penis to become erect denotes the deficiency of the man – his failure to robustly represent the phallus.³⁵ With the loss of sexual function as a result of ED, the collated evidence showed that men viewed this as the biggest threat to their masculinity. The loss of the erection equates to the loss of their manhood, unveiling opinions of feeling

mutilated and unmanly. Potts³⁵ echoes these sentiments by asserting that the loss of the power to pierce and thrust de-sexes and submits the man to powerlessness, leaving him emasculated and feminised. In comparison, a quantitative survey suggested a tendency for men to conflate their performance with their masculinity.³⁶ Interestingly, this was not just the case for heterosexual men, but also for gay men, who, stereotypically, are associated with feminine attributes and are therefore identified as “unmanly.”^{14(pp37)} Yet gay men could visibly compare their penis length to their partner’s, and were in, arguably, a more disadvantaged position to feel inadequate. Fergus et al⁸ came to the conclusion that irrespective of sexual orientation or ethnocultural identity, having sex is integral to being a man. Some turned to aids to help them re-establish their erections. As Potts notes, “therapeutic success is measured by his restoration to phallic manhood.”^{35(pp94)} Gannon et al⁵ underline this principle, agreeing that by providing sex aids, medical practitioners are, in a sense, colluding with powerful discourses that construct male sexuality in terms of penetrative sex.

There was evidence to clarify that men of advanced age, who were usually married, were able to cope with the loss of erectile function – deemed as something that diminished with age and time regardless. ED was further accepted by those who had the chance to raise a family, lamenting that their ability to father children had been fulfilled. They had support from their partners, which eased the pressure to perform, and did not feel the procedure had altered their perceptions of masculinity. The study by Letts et al³² found that most men aged 49 and above believed that the sexual changes they experienced had no impact on their self-concept as a man, although this was rationalised based on the alternatives of succumbing to the cancer. In contrast, younger men were more likely to suffer emotionally from ED, especially within the context of hegemonic masculinity that invokes them to be sexually active. The disparity in research on this issue can therefore be attributed to the ages of the participants involved. Social pressure would seem to make this situation more stressful, particularly as men commented on hiding their affliction from their peers, or avoiding the chance for intimate encounters altogether, remaining complicit with dominant

ideals.¹⁵ Indeed, one man described his disclosure as a “coming out” experience.”^{8(pp311)} Kahn coined the term “subordinate masculinity” to describe aspects of masculinity that are viewed as denigrate forms of masculinity. Gay masculinity, he states, can be viewed as subordinate masculinity as it is marginalised.¹⁴ As gay men are said to “come out,” in this context we can see how prostate cancer survivors now consider themselves as marginalised, self-exiled from the sphere of dominant masculinity. For these younger men, there is a sense that they had, potentially, been robbed of their ability to have children and that future relationships may have been jeopardised. Thus they were unable to fulfil their sexual role, and came to express fear that their partner would leave them.²⁹

Across the sampled ethnicities, African American/black men and white men were seen to have a more strenuous time adjusting to ED than Latino men. This is likely due to cultural intricacies. Within Latino communities, the use of the term “machismo” has often been a source of controversy, associated with a type of domineering masculinity that supresses anything else.¹⁴ Our findings showed that Latino man valued being a good role model and provider for their families, and were less concerned with restoring sexual vigour. Due to historical and ongoing racial discrimination and prejudice, Harris³⁷ interprets that African American male youth of low-income social status have redefined masculinity to emphasise sexual promiscuity and disdain for feminine qualities. There is more focus on predominant heterosexual values, and rejection of vulnerability. The side effects of treatment robustly challenged these culturally-imposed, deep-rooted misogynistic traits. Gough^{15(pp2481)} deduces that “masculinity is constructed narrowly as unhealthy and enduring, offering little hope of change.”

The side effects of prostate cancer were seen as instigating a loss of control. Potts³⁵ highlights that having control over the body is an important component in the achievement of healthy sexuality. We found that when men were not feeling in control, they suffered acutely. Their independence was diminished. They were left unable to perform simple tasks or enjoy previous physical activities. Incontinence represented the adverse loss of control. Urine and

stool leakage reduced men to describing themselves as babies that could not get a hold of their bodily functions. The same was true for sexual function, although erections could be sustained through aids. Some men spoke of being “feminised” – particularly when suffering the side effects of hormonal treatment and unable to perform physically laborious tasks. Potts^{35(pp94)} adds weight to this interpretation, opining that after men are emasculated they become feminised and, “like a woman – he has no control over his body.” The thought of being feminised was portrayed in a negative light, as it goes against the very notions of hegemonic masculinity. Gannon et al⁵ saw that masculine restraint and stoicism were favoured over perceived female emotionality.

With their emotions bottled up, confidence dwindled, and men found themselves suffering from low self-esteem. Kelly²⁷ found that those who lacked control directed considerable anger toward the medical system which, in their eyes, had failed them. The data clearly indicates that those men who were informed about the post-operative effects of their treatment, and were in continuous contact with the same physician, were more likely to cope with the changes.^{7,34} Evidence suggests that men who were not prepared, and felt their physician was not forthcoming or supportive, were wracked with emotional turmoil, often leading to depression and despair, and, in the case of one man, suicidal.³² It is important, then, that medical practitioners are clear and concise about the consequences of treatment, and give survivors continuous aftercare and support.³² Many of the researchers^{7,28,32,33,34} agreed that men needed to be given an open forum in which to discuss their problems, worries and sexual changes. Arrington⁶ found that men wanted to discuss their sexual concerns with someone, and desired a forum in which to do this, while Hanly et al³⁴ suggested that sexual counselling should be offered. Quantitative findings by Wootten et al³⁸ showed that those living with ongoing sexual dysfunction experienced a significant impact on their psychological adjustment and needed psychosocial intervention following treatment for prostate cancer to assist them with the management of residual symptoms. Although evidence proposes that men limit what they talk about, and whom with,³⁰ they must

still be given the opportunity to talk with others about their experiences. Nurses are therefore pivotal in encouraging men to address their gender identity concerns with other survivors.

The data showed that a number of men were open to new interpretations about masculinity. Oliffe³³ observed how positions of masculinity, sexuality and intimacy were redefined, with one man wishing to express his sexuality through touch rather than penetration. Shifting focus to other pleasures in life and pursuing different sexual avenues were key aspects in helping men overcome their sense of loss. Potts³⁵ argues that so-called sexual dysfunction is a product of prevalent cultural narratives about human sexuality. These men were able to overcome the restraints of culturally imposed hegemonic masculinity, and displayed their sexuality in other ways as previously alluded to. They adapted to their new sense of self, and generally accepted that the loss of sexual function was a necessary sacrifice in order to prolong life.⁸ Although this was not usually a smooth transition, the evidence found that those in long-term relationships benefited from the support of their families and loved ones. Quantitative research reinforces this point in that the majority of those surveyed with wives or partners felt that they had sufficient emotional and psychological support, but would have benefitted from a sexual counsellor.³⁹

Implications for practice

We would like to recommend that communicating the side effects of prostate cancer treatment by health care professionals to patients with prostate cancer should be more forthcoming, as this may help patients to be prepared for changes that may affect their perceived masculinity. Some patients were not adequately apprised of the side effects and, unduly, the transition period became a struggle for some of them. If communication from health care professionals is more conspicuous, perhaps this could help in men's adjustment to the changes that may result from prostate cancer treatment.

Health care professionals may also be in an ideal position to offer support to patients or refer them onto support groups where they could seek help. Coping with changes to one's

masculine identity and sexual function can be shocking and difficult to come to terms with. Sign posting patients to groups where they may meet other men in similar situations, to discuss issues affecting them, would be prudent. This may enable them to adjust to the changes to their masculine identity and sexual relationships. Due to the emphasis of some in restoring their sex lives, there is a particular need for discussions in this area.

Limitations and future research

Although sufficient data were collected, there were a number of limitations restricting the scope of this study. We tried to capture experiences from a cross-section of men. The results yielded papers from Western, English-speaking countries only. More research looking at survivors from different backgrounds, socioeconomic statuses, and geographical locations would have broadened the depth of the study. The demography is restricted to white, black and Latino men. None have been treated in isolation. Although homogenised, we recognise that this in itself is a limitation of the study. Experiences of other ethnicities have not been catered for and, while an all-inclusive analysis is impossible, we identify this as a further limitation. Additionally, although some studies incorporated gay men, none centred entirely on their individual experiences, or that of any other sexuality. Further qualitative studies should consider looking primarily at prostate cancer survivors of other ethnicities and sexualities. This could help develop person-centred, holistic responses based on the needs of these individual groups.

Men's own experiences took precedence in this study, and so the impact of their treatment on family members, loved ones, and friends was excluded. Including perceptions from third sources could have contributed to painting a larger picture of how men who had overcome prostate cancer would be perceived by others. This could, in part, help build upon the insight into men's sense of masculinity – whether the views espoused in this analysis are shared by other men. Incorporating feminine points of view, from partners or spouses, could serve to

counter, or reinforce, the claims made by the men in the qualitative studies. Future research could also embody fertility education or support for men prior to therapy.

Conclusion

This meta-synthesis contains the first collation of qualitative research based on exploring men's sense of masculinity post prostate cancer treatment. This review found that men's sense of masculinity diminished following treatment for prostate cancer. Cultural influences and dominant ideals of what it means to be a man informed much of their opinions. There was an existential crisis when forced to confront the changes made to their bodies, and the unfavourable depiction of becoming feminised. Men either redefined what masculinity meant in their eyes, or tried to reemphasise their manhood as it existed before the treatment. Older men coped with the transition better than their younger counterparts and were more likely to report that their masculinity had not been affected by the treatment. Consideration for younger men is therefore needed. More information and communication, from the start and throughout recovery, are required to better inform patients of the outcomes. Such transparency will provide them with a crutch on which to adjust themselves. Additionally, it would be beneficial to have open forums through which to encourage men to talk frankly about their masculine identities. We recommend that nurses are pivotal in helping to alleviate the fears and anxieties that men may experience post prostate cancer treatment. Nurses need to be aware of men's emotional anguish and should develop a person-centred, holistic approach to deal with this issue.

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Figure Legends

Figure 1: Article Search Flowchart.

Figure 2: Theoretical model of stages in renegotiating masculine identity.

