

The Experiences of Gay and Bisexual Men Post-Prostate Cancer Treatment: A Meta-Synthesis of Qualitative Studies

American Journal of Men's Health
1–13
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DOI: 10.1177/1557988318793785
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Abstract

Studies suggest that gay and bisexual men are affected by the psychological aspects of prostate cancer treatment differently than that of heterosexual men; however the data have not yet been synthesized. The focus of this meta-synthesis is to explore gay and bisexual men's experiences of prostate cancer posttreatment. Empirical research published in peer reviewed journals between January 1990 and January 2018 were identified in six databases: CINAHL, Cochrane, Medline, PsycINFO, PubMed, and Web of Science. Titles and abstracts were checked by two reviewers. The six studies that met the inclusion criteria were selected and reviewed for quality and the extracted data were then synthesized. The main themes that emerged were sexual impact, physical and psychological difficulties, challenges to intimacy, and support mechanisms. Gay and bisexual men can have specific sexual roles and developing prostate cancer and undergoing treatment may compromise their ability to perform their sexual role. The needs of heterosexual men were perceived to be accommodated more often than that of gay and bisexual men because of engrained heteronormativity in the health-care system. The review suggests that more support groups specifically for gay and bisexual men should be established, while urologists should cater to the sexual and masculine implications of treatment, and not frame problems for gay and bisexual men in heterosexual terms. By failing to address the salient needs and concerns of gay and bisexual men, health-care professionals are reinforcing invisibility and marginalization of gay and bisexual men with prostate cancer.

Keywords

gay, special populations, bisexual, special populations, prostate cancer, oncology/cancer, male sex role, gender issues and sexual orientation, masculinity, gender issues and sexual orientation

Received March 21, 2018; revised July 9, 2018; accepted July 10, 2018

Prostate cancer is the second most common cancer in men and the sixth leading cause of death internationally [World Cancer Research Fund International (WCRFI), 2015]. According to data from the United Kingdom (UK), one in eight men will be diagnosed with prostate cancer during their lifetime (Cancer Research UK, 2014). Approximately 68% of prostate cancer cases occurred in more developed countries (WCRFI, 2015). This is due to the practice and frequent use of prostate specific antigen (PSA) testing and subsequent biopsy that are used within these regions (Globocan, 2012).

Although prostate cancer is more prevalent in black men (1 in 4) aged 45 or above (Thompson, 2014), and for other ethnicities aged 50 or above, there is no evidence that gay or bisexual men are more specifically at

risk of developing prostate cancer (Prostate Cancer UK, 2016). The main body of research has tended to focus on the experiences of heterosexual men (Prostate Cancer UK & Stonewall, 2013). Because of sexual and societal differences, gay and bisexual men are likely to be affected differently in all the major areas of impact, both physically and psychologically, than heterosexual men (Blank, 2005).

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A study conducted by Motofei, Rowland, Popa, Kreienkamp, and Paunica (2011) asserted that gay men diagnosed with prostate cancer were experiencing worse sexual functioning and were more concerned about their ability to maintain an erection post-prostate cancer treatment than their heterosexual counterparts. Equally, Prostate Cancer UK (2016) reported that erectile dysfunction (ED) can be a cause for concern for gay or bisexual men who are normally the insertive partner (top) during sexual intercourse. Gay or bisexual men who are the receptive partner (bottom) during anal sex may receive pleasure from the penis rubbing against their prostate (Prostate Cancer UK, 2016). Receptive partners may be less burdened about their own erections and more apprehensive about the potential impact of radiation on bowel function, rectal irritation, and pain (Blank, 2005). In addition, external beam radiation can have a detrimental effect on a gay man's ability to have anal sex (Goldstone, 2005).

According to Simon Rosser et al. (2016a), gay and bisexual men appeared to be screened for prostate cancer less than heterosexual men, are diagnosed with prostate cancer at a similar rate, but have poorer sexual function and quality-of-life outcomes. This is partly due to a lack of sexual rehabilitation treatment for them, which primarily centers on the sexual practices of heterosexual men and vaginal penetration, and a lack of research to guide the development of appropriate treatment (Simon Rosser et al., 2016a). Research on the relational context of cancer and sexuality has tended to assume men are in long-term, monogamous heterosexual relationships (Gilbert et al., 2013). While gay and bisexual men may experience similar challenges to that of heterosexual men following treatment, their sexual context is different and their treatment outcomes were found to be worse (Simon Rosser et al., 2016a), with lower mental health functioning and a greater fear of cancer recurrence, thereby affecting their quality of life (Hart et al., 2014). Wassersug, Lyons, Duncan, Dowsett, and Pitts (2013) discerned that there were no significant differences between gay men and heterosexual men in receiving different treatment modalities or experiencing ED; however, gay men reported that they were bothered by their inability to ejaculate and this side-effect was deemed more of a problem to this group of men than their heterosexual counterparts.

Evidence in the literature by Ussher et al. (2016) posits that gay men have greater unmet psychological and supportive care needs than their heterosexual counterparts. These authors state that a number of psychological interventions have been developed for heterosexual men to address their concerns; however, there is an absence of specific interventions to address the needs of gay men thereby creating this inequity in treatment. This study further asserts that there are differences in psychological,

sexual, and physical treatment between gay men and heterosexual men and that this invisibility should be addressed in the prostate cancer research and care field. This idea is also supported by Dowsett, Lyons, Duncan, and Wassersug (2014) who argue that more attention is required to address the needs of gay and bisexual men with prostate cancer. Focusing on other diverse groups would demonstrate commitment to fostering an inclusive society.

Although gay men may defy society's traditional masculine ideals, they may nevertheless be affected by the same rules that can influence heterosexual men (Sanchez, Greenberg, Liu, & Vilain, 2009). Culturally imposed hegemonic masculinity and dominant ideals tend to dictate what it means to be a man, and heterosexual men are seen to suffer psychosocially following treatment for PC (Alexis & Worsley, 2018). Although gay masculinity is marginalized and denigrated by traditional hegemonic masculinity (Kahn, 2009), there is evidence to suggest that societal concepts of masculinity do affect the self-image of gay men (Sanchez et al., 2009).

Due to the paucity of literature in this area, this review will focus on the experiences of gay and bisexual men following prostate cancer treatment. Qualitative research is used to gather insights into the dynamic relationships of attitudes, motivations, and concerns of minority populations (Marshall & Rossman, 2011; Patton, 1990). A meta-synthesis of qualitative studies will therefore enable a unique insight to be gained into the physical and psychosocial effects of prostate cancer treatment on gay and bisexual men.

Methods

In this synthesis, the authors' aim is to explore gay and bisexual men's experiences of prostate cancer posttreatment. As outlined by Sandelowski, Docherty, and Emden (1997), the method for this study entailed a meta-synthesis of findings across studies conducted by different investigators. The systematic method was adapted from Gewurtz, Stergiou-Kita, Shaw, Kirsh, and Rappolt (2008) and incorporated the following steps: (a) identify a relevant research question, (b) set inclusion and exclusion criteria, (c) identify and retrieve studies, (d) assess the quality of the studies, (e) synthesize findings from across the studies by use of Noblit and Hare's (1998) meta-ethnographic approach.

Data Acquisition

This review focused solely on academic qualitative studies, primarily focus groups and individual interviews, from January 1990 to January 2018. As previously stated, there has been a dearth of literature on the postoperative

effects of prostate cancer treatment on gay and bisexual men. The date range was designed to capture as much data as possible on this subject. The authors devised their inclusion parameters as: studies published in any country, peer reviewed research, and English language publications. Study participants were male, gay or bisexual, single or in a relationship, had been diagnosed with prostate cancer and 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 that were pre-therapy, or incorporated other types of cancer, and studies that included heterosexual men and transgender women.

Original academic research articles were sourced using the keywords (*prostat* neoplasm* OR prostat* cancer*) AND (*gay OR bisexual* OR homosexual**) AND (*aftercare OR needs OR experience**). A systematic search was conducted across six databases: CINAHL, Cochrane, Medline, PsycINFO, PubMed, and Web of Science.

A total of 184 articles were identified as being potentially appropriate for this review. The titles and abstracts were reviewed by the researchers. Following this process, 132 papers were rejected for failing to meet the inclusion criteria, and 47 were duplicates. The remaining 5 articles were selected for full-text review. Both authors reviewed the reference lists of the 5 papers, and a further paper was found because it met the inclusion criteria. A total of 6 studies were deemed acceptable to undergo quality appraisal. Figure 1 summarizes this process.

Quality Appraisal

All 6 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 10 questions (CASP, 2013). Both reviewers assessed each of the studies separately and provided a total rating out of 10. All studies scored high, and were therefore deemed acceptable for analysis. See Table 1 for a summary of each paper.

Data Extraction and Synthesis

Noblit and Hare's (1998) seven step meta-ethnographic approach was used to synthesize the data. This entailed (a) getting started, (b) deciding what was relevant, (c) reading the studies, (d) determining how the studies were related, (e) translating the studies into one another, (f)

synthesizing translations, and (g) expressing the synthesis. The authors met to undertake the first 3 steps by deciding what data would be relevant, and then reading and re-reading the studies to gain a further understanding of each study's results. After this, data were extracted from the studies, and coded into a table. This created a first-order synthesis that helped determine how the studies were related to each other. The data were then categorized by merging common concepts and meanings into a second-order synthesis allowing the studies to be translated into one another. Through this method, the authors were able to identify subthemes. Finally, these subthemes were aggregated into a third-order synthesis, which entailed identifying and developing new themes that had been gleaned from the collated data. Table 2 provides a characterization of each study.

Findings

An analysis of the findings led to the formation of 8 sub-themes. These were aggregated into 4 main themes: Sexual Impact, Physical and Psychological Difficulties, Challenges to Intimacy, and Support Mechanisms. Each theme is explored in detail using the data extracted from the qualitative studies and supported by quotations where necessary.

Sexual Impact

Gay and bisexual men in this meta-synthesis experienced difficulties engaging in sexual activity after prostate cancer treatment. The subthemes for sexual impact are erectile dysfunction and effects on masculine identity.

Erectile Dysfunction

After treatment, study authors recorded that there was an overall decrease in sexual activity (Lee et al., 2015), with reported experience ranging from temporary minor challenges to chronic, permanent ED (Simon Rosser et al., 2016b). There was reduced erectile functioning (Hartman et al., 2014), with erections described by Simon Rosser et al. (2016b) as more fragile. Erectile function rendered men vulnerable to failing to perform sexually (Lee et al., 2015). The inability to get an erection led some men to give up on the possibility that they might recover from such changes (Lee et al., 2015), with one man opining that "If I lose the erection, it's hard to get it back" (Simon Rosser et al., 2016b, p. 440). Some men in the study by Lee et al. (2015) were reticent to disclose details of their PC and its treatments during sexual encounters, and were concerned that potential partners might misinterpret the lack of an erection as lack of interest. Distress related to ED appeared to be dependent on the patient's sexual

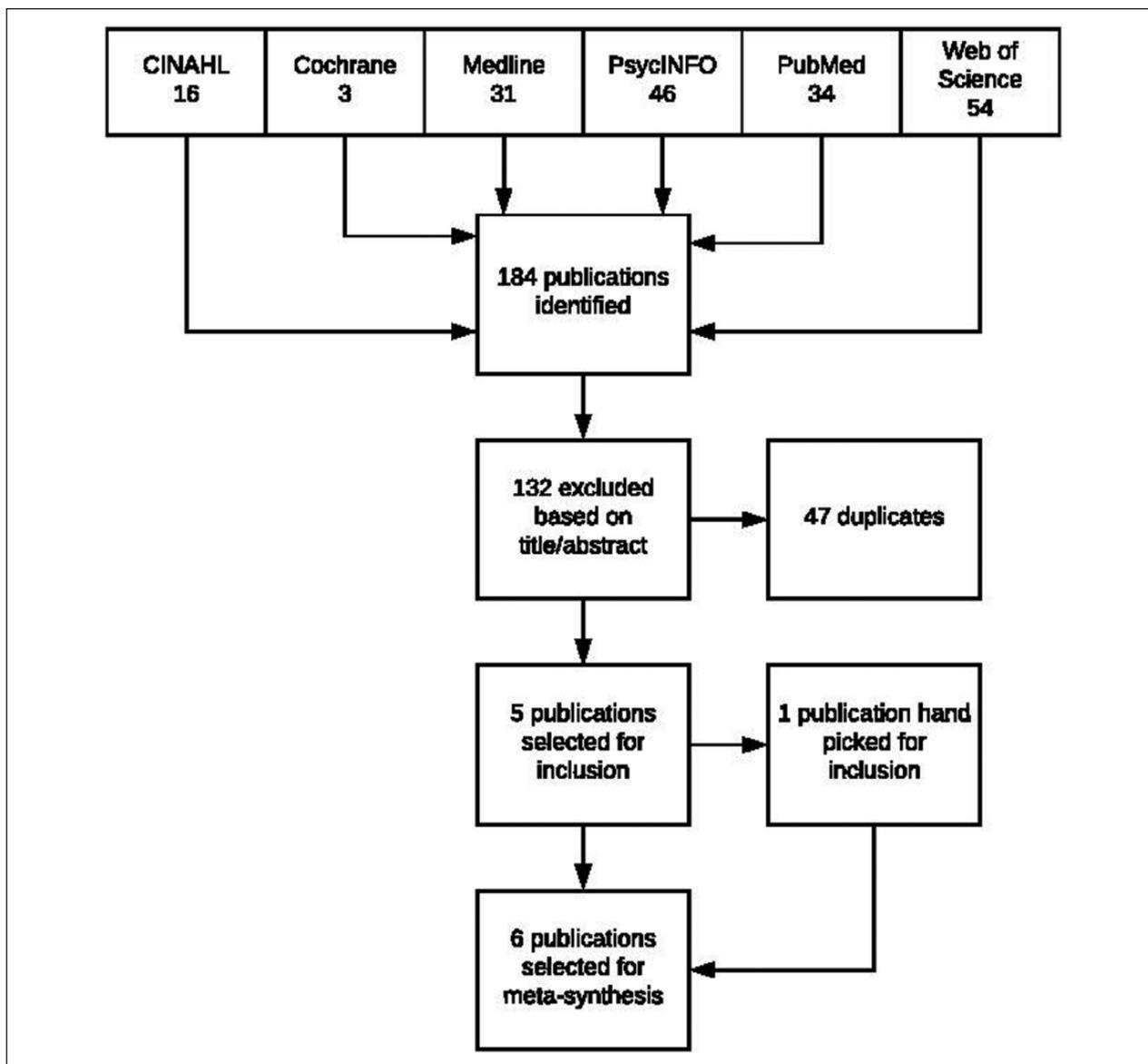


Figure 1. Study selection process.

preference as a penetrator, which was compromised by the inability to sustain an erection (Hartman et al., 2014). Evidence from the studies suggests that sexual dysfunction may force men to change their roles (Lee et al., 2015), as some men reported their inability to penetrate as “devastating,” with some switching roles to be the receptive partner (Simon Rosser et al., 2016b, p. 439), and one man opining to Hoyt et al. (2017, p. 6) that “being a top was part of my identity.” This was also true in the study by Thomas et al. (2013) where one participant had to change from being an insertive to a receptive partner due to ED. Simon Rosser et al. (2016b) noted that gay and bisexual men would adopt novel substitution behaviors to circumvent penetration,

including using dominant-submissive role play to maintain the role of ‘top’.

Capistrant et al. (2016) observed that men were selective as to whom they talked to regarding sexual side effects. Some spoke of confiding in partners, others to friends and social groups, but generally less, it was disclosed, with family (Capistrant et al., 2016). Participants in two studies reported trying one or more sexual aids, with two couples turning to erectile aids, and one man using Viagra to help him return to his role as penetrator (Hartman et al., 2014; Simon Rosser et al., 2016b). Being the insertive partner was a priority for some, with one man admitting “I can’t really be a top in anal sex unless I

Table I. Methodological Assessment.

Study	Criteria										Total	%
	A	B	C	D	E	F	G	H	I	J		
Capistrant et al. (2016)	✓	✓	✓	✓	✓	X	X	✓	✓	✓	8/10	80
Hartman et al. (2014)	✓	✓	✓	✓	✓	X		✓	✓	✓	9/10	90
Hoyt et al. (2017)	✓	✓	✓	✓	✓	X	X	✓	✓	✓	8/10	80
Lee et al. (2015)	✓	✓	✓	✓	✓	X		✓	✓	✓	9/10	90
Rosser et al. (2016)	✓	✓	✓	✓	✓	X	X	✓	✓	✓	8/10	80
Thomas, Wootten, & Robinson (2013)	✓	✓	✓	✓	✓	X	X	✓	✓	✓	8/10	80
	Clear statement of research aims	Qualitative method appropriate	Research design appropriate	Recruitment strategy appropriate	Data collected addressed research issue	Relationship with participants considered	Ethical issues considered	Data analyzed sufficiently	Clear statement of findings	Research of value		

take the extra erectile enhancement or dysfunction medication” (Lee et al., 2015, p. 2381). One author observed that men also used erectile pornography to sustain sexual interest (Simon Rosser et al., 2016b). Another study reported that some men adapted by making adjustments to their sexual positions, or by using sex toys (Hoyt et al., 2017). One couple had embraced open relationships as an alternative means to achieve pleasure which had helped ameliorate performance pressure (Hartman et al., 2014). However, Hartman et al. (2014) noted that the failure of interventions to improve erectile status caused depression in some men.

Effects on Masculine Identity

For the majority of the participants in the study by Thomas et al. (2013), the loss of erectile function and decreased penile length resulted in altered sexual function which impacted on their sense of masculine identity. One participant in Hartman et al.’s (2014, p. 242) study reported that he felt “castrated” as a result of surgery. In another study, a participant undertaking androgen deprivation therapy felt that his male identity had been altered markedly and, as well as anxiety and mood fluctuations, he thought of himself as experiencing the female menopause (Thomas et al., 2013). Hoyt et al. (2017) reported that one man described himself as feeling as if he were living in a different body. In one study, none of the respondents who reported penile shrinkage said they had been warned about this possibility (Simon Rosser et al., 2016b). Treatment resulted in one participant from the study by Thomas et al. (2013) questioning his own self-worth as a man, both physically and mentally.

Physical & Psychological Difficulties

In this analysis, the theme of physical and psychological difficulties focuses on urinary changes and emotional responses to prostate cancer and its treatment.

Urinary Changes

Climacturia was identified as a barrier to having sex (Simon Rosser et al., 2016b). Urinary incontinence impacted on participants’ sexual practices, with Lee et al. (2015, p. 2381) reporting how one participant felt it was impossible “to feel sexual when you’re squirting urine all over the place.” There was climacturia accompanying orgasms, which in turn was deemed as a deterrent for engaging in sexual activity (Hartman et al., 2014). The smell or leakage of urine was described in the study by Simon Rosser et al. (2016b) as disgusting, or a sexual turn-off. One couple struggled with the loss of control that accompanied medication administration and climacturia (Hartman et al., 2014). The side effects remained a problem, leaving one participant in one study with a sense of regret concerning the treatment (Thomas et al., 2013).

Emotional Responses

The authors of one study reported that there had been shock and disbelief and the need to confront one’s own mortality, and gain information quickly when the psychological impact of the diagnosis was being shouldered (Thomas et al., 2013). Three participants in the same study identified an inner strength (Thomas et al., 2013). Alternatively, Hoyt et al. (2017) reported that other participants were less cheerful than before, with one man

Table 2. Characteristics of the Studies.

Title	Authors, year, country	Aim	Methods	Sample size	Results
Caregiving and social support for gay and bisexual men with prostate cancer	Capistrant et al. (2016) United States	To investigate the availability and provision of social support for gay and bisexual men with prostate cancer	Telephone interviews	19 non-Hispanic Black & White men, aged 48–74 years. 18 identified as gay, 1 identified as bisexual	During or after treatment, men reported receiving a range of instrumental support, largely a function of relationship status and treatment type
Exploring gay couples' experience with sexual dysfunction after radical prostatectomy: A qualitative study	Hartman et al. (2014) Canada	To enhance understanding of gay couple's experience with sexual dysfunction after radical prostatectomy	Interviews	6 White men, aged 40–62 years. 3 were patients, 3 were partners	Equitable rehabilitative support is critical to assist homosexual couples manage distress associated with prostatectomy-related sexual dysfunction
Gay men's experiences with prostate cancer: Implications for future research	Hoyt et al. (2017) United States	To explore gay men's experiences with prostate cancer with a focus on the emotional, physical, and sexual impact of cancer, support needs, and health-care interactions	Focus groups	6 White men & 5 African American men, aged 43–84 years	Minority stress, intimacy and sexuality concerns, impact on life outlook, health-care experiences, social support, and intersectional identities all impacted on men's experiences
Impact of prostate cancer treatment on the sexual quality of life for men-who-have-sex-with-men	Lee et al. (2015) Canada	To explore post-prostate cancer treatment sexual concerns for a sample of men-who-have-sex-with-men	Individual interviews	16 men, aged 58–71 years	Sexual quality of life decreased with erectile, urinary, and ejaculation dysfunctions. Limited access to psychosocial support posed difficulties in coping
The effects of radical prostatectomy of gay and bisexual men's sexual functioning and behavior: Qualitative results from the restore study	Simon Rosser et al. (2016) United States	To advance research on the sexual effects of prostate cancer in sexual minorities	Telephone interviews	18 non-Hispanic White men & 1 African American man. 18 identified as gay, 1 identified as bisexual	All sexual behavior with other men, not just insertive anal sex, was affected
The experiences of gay and bisexual men diagnosed with prostate cancer: Results from an online focus group	Thomas et al. (2013) Australia	To qualitatively identify the experiences, concerns and perceived information needs of gay and bisexual Australian men diagnosed with prostate cancer	Focus groups	10 White men, aged 47–70 years. 9 identified as gay, 1 identified as bisexual	Prostate cancer significantly impacted their lives. The psychological distress of the disease may be significant over an extended time frame

having appearance concerns which he felt was a difficulty for many gay men who valued physical attraction. Four participants in the study by Thomas et al. (2013, p. 525) responded with a positive perspective and a sense of empowerment at gaining insight into what was important and worthwhile in their lives: "It needs to be absolutely

fine to grieve - to cry, to get angry, to feel lousy." The authors noted that most found a new appreciation for living in the 'Now' and expressed an appreciation of the love and support of those close to them (Thomas et al., 2013). Some men commented that they had not been substantially changed by the experience (Hoyt et al., 2017).

One participant in one study failed to see any positive aspects in the whole experience, while another expressed regret and longed to return to a life before the diagnosis of PC (Thomas et al., 2013). In another study, one patient questioned whether having a cancer-free status was worth the cost of sexual dysfunction (Hartman et al., 2014). Hoyt et al. (2017) reported that some men made practical changes such as eating healthy and sleeping more, and felt like giving back by participating in support groups or research.

Challenges to Intimacy

As a result of prostate cancer treatment, gay and bisexual men faced challenges to their intimate relationships. The two subthemes are effect on couplings and sexual satisfaction.

Effect on Couplings

Couples encountered a reduced capacity for sexual activity (Hartman et al., 2014). One participant in one study was unable to engage sexually with his partner, resulting in less intimacy in their relationship (Thomas et al., 2013). There was reported communication withdrawal between couples in one study (Hartman et al., 2014). Some men avoided sex while others reported being rejected by partners (Simon Rosser et al., 2016b). The loss of intimacy, fear of rejection and perceived emotional gap made the long term prospects of some relationships in the study by Thomas et al. (2013) look bleak. Hartman et al. (2014) discerned that partners expressed a willingness to forgo their own sexual needs to minimize distress from sexual dysfunction. One proposition was to move away from the phallic focus of gay sex and explore alternative ways of sexual intimacy (Thomas et al., 2013). Nonverbal expressions of affection, such as nonsexual touching, helped ease some of the potential detachment and isolation, while some participants were promulgated by Hartman et al. (2014) as placing an increased importance on intimacy, and emphasized continual dialogue.

Focus on health, the normalcy of age-related sexual changes, and partner acknowledgment of a new normal helped couples in one study embrace their new level of functioning (Hartman et al., 2014). Capistrant et al. (2016) observed that men in relationships had a range of involvement in treatment decision making with their partners. Most of the partnered men who had surgery in this study got instrumental caregiving from their partners (Capistrant et al., 2016). The authors of another study reported that there was some value placed in operating outside their primary relationship to engage other sexual partners (Lee et al., 2015). One man in the study by Hoyt et al. (2017) spoke of resigning himself to the fact that his

partner would have to go elsewhere for sex. A predominant theme, particularly among single men, was reported by Capistrant et al. (2016) as being one of independence or being solitary. Participants who were single often encountered difficulty pursuing new sexual partners or long-term relationships (Lee et al., 2015). One man perceived himself to be undesirable in the gay world, feeling like “damaged goods” (Thomas et al., 2013, p. 526). Another man also referred to himself as damaged goods, and described how overcoming intimacy challenges were different for single gay men than those in relationships (Hoyt et al., 2017). In a third study, one man experienced depression, lamenting that he would never find another partner again (Capistrant et al., 2016). In contrast, Lee et al. (2015) reported that having a stable relationship might lessen the impact of sexual side-effects, and that supportive partners and flexible sexual practices helped participants overcome some of the PC treatment-induced side effects.

Sexual Satisfaction

Men who had undergone radical prostatectomy in one study spoke of there being an overall decrease in sexual interest after treatment, and a reduced libido (Hartman et al., 2014). Some men in another study had gone without sexual contact for an extended time, and noted associations with increased sadness and a depressed mood (Hoyt et al., 2017). All respondents in the study by Simon Rosser et al. (2016b) were warned, pre-surgery, about losing their ability to ejaculate. Some reported this as a major emotional loss both to them, and for some, to their partners (Simon Rosser et al., 2016b). In terms of sex, Lee et al. (2015, p. 2382) commented that ejaculation “seems to be an important aspect of the culmination of the whole activity.” This was epitomized by one man in one study: “I can’t tell you how much I miss cum... when you have a loss you really have to grieve, you have to mourn something that you love that you don’t have anymore” (Simon Rosser et al., 2016b, p. 437). There was a sense of loss expressed at the absence of ejaculation, and this grief was summarized in Lee’s (2015, p. 2382) study: “I am a man, I’m in charge, I’m here, watch me... and that’s gone.”

Reduction in the ability to ejaculate was reported by Lee et al. (2015) as contributing to dissatisfaction in the orgasmic experience. Participants described compromised posttreatment orgasms as “interesting,” “superficial,” or “incomplete” (Lee et al., 2015, p. 2381). The participants in the study by Hartman et al. (2014) were unable to reach orgasmic climax, and experienced dry orgasms. One patient expressed that his pleasure while climaxing had deteriorated (Hartman et al., 2014). Participants in another study reported that orgasms were a positive change; experienced as more intense (Simon

Rosser et al., 2016b). Increase in pain and/or loss of pleasure in the rectum dramatically changed the experience of receptive anal sex for some men in one study (Simon Rosser et al., 2016b). Sex became less about the experience of pleasure, and more about the technical aspects of anticipating and managing side effects (Hartman et al., 2014). Additionally, Hoyt et al. (2017) observed that there was a profound loss of emotional intimacy.

Support Mechanisms

The final theme looks at the support mechanisms in place for gay and bisexual men, identifying both professional and personal subthemes.

Professional

Authors noted how health systems and service issues left many men without psychosocial support (Lee et al., 2015). Participants described experiences of stigma, prejudice, and discrimination throughout PC diagnosis and treatment (Hoyt et al., 2017). Not only were they apprehensive about disclosing their sexual orientation out of fear of the consequences (Hoyt et al., 2017), but some were also uncomfortable disclosing their sexual orientation in PC support group settings out of fear of disapproval (Lee et al., 2015). Three participants in one study felt that a support group for gay and bisexual men might provide a safe haven for expressions (Thomas et al., 2013). Some men who did not have access to a gay support group locally in the study by Capistrant et al. (2016) reported wanting it, remarking that there was more ease when talking with other gay men. There were difficulties in airing their own problems, with one man noting "if you go to a typical prostate cancer support group it's all straight men and it's usually their wives that are talking. They don't want to hear about my problem" (Capistrant et al., 2016, p. 1332).

A majority of the participants in the study by Lee et al. (2015) did not know other gay or bisexual men with PC. Some had to rely on self-education, often extrapolating findings based on the sexual obstacles of heterosexual men and applying them to their own sexual practices (Lee et al., 2015). Men sought out social support groups to find information about possible treatments and side effects because they wanted to hear directly from first hand experiences and thus aid in their own decision-making process regarding treatment (Capistrant et al., 2016). Thomas et al. (2013) reported that urologists often failed to outline the potential side effects of proposed treatments or discussing the psychosocial impact of such treatments. In one study, a participant indicated a lack of caring and understanding from providers (Hoyt et al., 2017). One couple expressed frustration that they were provided with

limited information regarding the course of recovery and the nature of the sexual disturbance (Hartman et al., 2014). Urologists talking about and measuring erections in heterosexual terms was a problem raised by a participant in the study by Simon Rosser et al. (2016b, p. 438): "they referred to the standard of an erection capable of vaginal penetration. I just didn't get into it with them."

Heteronormativity was felt by patients to be engrained in health care, and led to feelings of being marginalized, with one man noting in the study by Hoyt et al. (2017, p. 5) that: "I've never had a straight doctor do anything to inquire about anal intercourse." In another study, an urologist "wasn't too forthcoming" about discussing sexual effects on gay men according to one participant (Lee et al., 2015, p. 2383). All gay and bisexual men in the study by Simon Rosser et al. (2016b) who reported engaging in receptive sex or anal stimulation reported difficulty raising this with their specialist. One man put simply that "we need to have urologists clued up to deal with gay men" (Thomas et al., 2013, p. 526). Another wished that there were more therapists and nurses available to do the counseling and more doctors comfortable enough to talk about sex (Simon Rosser et al., 2016b).

The sense of difference and isolation was compounded when it came to discussing sex and partnerships (Lee et al., 2015). Gay men felt that they were not taken seriously as patients, and some specifically chose gay physicians, whom they felt made them more comfortable (Hoyt et al., 2017). Authors of one study noted that warmth and sincerity were traits to be sought in choosing a urologist compared with dismissive attitudes which were deemed unhelpful (Thomas et al., 2013). The authors of another study cited that participants illustrated empathy, trust, and openness as creating positive experiences, and poor judgment, lack of communication, and a salesperson attitude among doctors as negative (Hoyt et al., 2017).

Personal

Some men received emotional succor from a support network, and spoke of having people who came to visit or spend time with them (Capistrant et al., 2016). Men who benefited from a support network often identified how individuals provided PC-related support (Hoyt et al., 2017) rather than mainstream professional oncological and psychosocial health services and support, which were not adequately serving them (Lee et al., 2015). Thomas et al. (2013) commented that their emotional needs had not been sufficiently addressed by medical practitioners. In one study, one man spoke a lot about PC to his brother, from whom he received a substantial amount of support (Hoyt et al., 2017). A theme of independence emerged mostly from the men who had undergone radiation therapy and other treatments (Capistrant et al., 2016). In

contrast, men who had radical prostatectomies reported needing and receiving more instrumental support immediately before and especially in the first days to weeks after returning home from surgery, such as cooking, running errands, transportation, and cleaning wounds (Capistrant et al., 2016). Most of the men in the study by Hoyt et al. (2017) who were single and alone lacked any tangible support for performing day-to-day tasks. Capistrant et al. (2016) observed in their study that the instrumental support single gay and bisexual men did receive came largely from friends, family, and paid caregivers (Capistrant et al., 2016). Authors of one study reported on how there was felt to be a lack of community support for gay men affected by PC when compared to those affected by HIV/AIDS (Hoyt et al., 2017). Due to the emphasis on men with HIV and AIDS, one participant in this study felt that the suffering of PC survivors was “overshadowed” (Hoyt et al., 2017, p. 8).

Discussion

The aim of this meta-synthesis was to elucidate the experiences of gay and bisexual men following prostate cancer treatment, an area that has previously received little attention. Six databases were searched, with the synthesized data aggregated under four themes and eight sub-themes. The review identified that gay and bisexual men have salient needs. There are unique phenomenological issues that gay and bisexual men will experience when in a sexual relationship with another man and although their experiences could differ from that of heterosexual men, the similarities pertaining to masculine and sexual difficulties were mutual.

The adverse effects of ED are seen as more of a problem in the gay community (Asencio, Blank, Descartes, & Crawford, 2009). Gay men place a great deal of emphasis on the penis and its ability to function effectively. Although heterosexual men have made strides to recover their lost erections, their focus is on vaginal penetration (Blank, 2005), whereas anal penetration requires a greater degree of penile rigidity (Cornell, 2005; Goldstone, 2005), which Simon Rosser et al. (2016a) believe accounts for the poorer outcomes of prostate cancer treatment for gay and bisexual men. Equally, it has also been reported, according to Blank (2005), that the importance of erectile function, and the way in which sexually related dysfunction may inhibit or disrupt intimate relationships, could be understood as being very different for gay and bisexual men. Some men believed that their inability to sustain an erection meant that they would become undesirable and that they would not be able to keep a partner. In a separate qualitative study, one man remarked that “gay men have a love affair with the penis” (Asencio et al., 2009, p. 46). Men who were the penetrators during

sexual intercourse were psychologically affected more profusely by ED. At times, this could lead to depression and feelings of suicide (Capistrant et al., 2016; Hartman et al., 2014). Men who identified as the dominant partner were forced to try sexual aids, or reverse their roles from top to bottom. Quantitative research reported that 80% of men who reported being solely in the insertive sexual role prior to PC treatment were no longer in that role post-treatment (Hart et al., 2014).

However, reversing their sexual role was not always an acceptable solution, with some men stating that they could only be top. Thus they turned to Viagra or other erectile stimulants to return to their preferred sexual role (Lee et al., 2015). Again, the quantitative findings by Hart et al. (2014) suggest that sexual repositioning may not be an option for some men. There was more surmountable pressure for them to regain their erections, out of fear that they would eventually be rejected by their sexual partners or become undesirable by other men. Many gay men may feel ashamed if their own bodies and penises don't match the ideal (Sanchez et al., 2009). For men who were receptive, the cost of PC treatment could lead to increased pain in the rectum and a loss of pleasure brought about by the erect penis rubbing against the prostate (Simon Rosser et al., 2016b). The inability to orgasm or ejaculate was greeted with grief and loss (Simon Rosser et al., 2016b). Equally, the impact on sexual practices is thus twofold, and special consideration needs to be given to gay and bisexual men.

Gay men are seen to break away from traditional masculine ideology mainly because of their affectional and sexual orientation (Sanchez et al., 2009). However, the reality is that traditional masculine ideals affect how gay men feel about themselves (Szymanski & Carr, 2008). The data indicate that the alterations to sexual function adversely impacted on their sense of masculine identity. Treatment resulted in one participant questioning his own self-worth as a man (Thomas et al., 2013). This echoes the understandings of Sanchez et al. (2009, p. 9) in their study on the effects of masculine ideals on gay men, which ameliorates that if a gay man can't meet the “masculine ideal,” he is likely to question his self-worth. There were comments of being “castrated” (Hartman et al., 2014, p. 242) and a likening of one man's condition, after hormonal treatment, to the “female menopause” (Thomas et al., 2013, p. 525). These remarks reflect comments made in other studies that heterosexual men were made to feel “unmanly” (O'Shaughnessy & Laws, 2009, p. 104) and “mutilated” (Hedestig, Sandman, Tomic, & Widmark, 2005, p. 681) by treatment.

It can be argued that dominant masculine ideology has had an effect on the way gay and bisexual men view themselves. Masculine norms pressure some gay and bisexual men to have an ideal body (Sanchez et al., 2009).

As the collated data identify, there was concern about physical appearance following treatment (Hoyt et al., 2017). In addition, ED and climacturia caused some to regret having treatment (Hartman et al., 2014; Thomas et al., 2013). Unlike heterosexual couplings, gay men in relationships were susceptible to opening their relationship, and allowing partners to seek sexual intimacy elsewhere. Gay men in some communities may have relationships that are dynamic, open, and not bound to one partner (Kahn, 2009). This was a novel way of alleviating the stress of needing to perform sexually, especially due to an overall decrease in sexual interest and the loss of the ability to ejaculate (Hartman et al., 2014; Lee et al., 2015). Since sexual assertiveness and aggressiveness tend to be associated with masculinity, some men in the study by Sanchez et al. (2009) felt that this made sexual promiscuity normal within the gay community. Generally, Lee et al. (2015) discerned that those men who were in supportive and stable relationships and adopted flexible sexual practices were capable of overcoming some of the treatment-induced side effects.

Men expressed frustration and difficulty when it came to seeking psychosocial support from health-care services (Capistrant et al., 2016; Hoyt et al., 2017; Lee et al., 2015; Simon Rosser et al., 2016b; Thomas et al., 2013). The devaluation of same-sex relationships is based in societal arrangements that privilege heterosexuality (Fish & Williamson, 2018). Thus, clinical environments might be unaccustomed to supporting the sexual well-being of gay and bisexual men (Rose et al., 2017). Although most health professionals may not be homophobic, medical culture may mirror heteronormative discourses (Kelly, Sakellariou, Fry, & Vougioukalou, 2018). In their study, Sabin, Riskind, & Nosek (2015) discerned that implicit preferences for heterosexual people over gay people were pervasive among a majority of health-care providers. A survey conducted by Stonewall (2017) reported that 57% of UK health and social care practitioners did not consider sexual orientation to be relevant to one's health needs. Blank (2005), however, argues that gay and bisexual men are likely to be affected differently in all the major areas of impact that are recognized. Some urologists appeared to cater to heterosexual men and their sexual and psychosocial issues, displaying a hetero-centric attitude to support (Rose et al., 2017). As a consequence, gay and bisexual men were dissuaded from disclosing their sexual orientation, or discussing any sexual obstacles they may endure. There was associated worry of experiencing subtle or overt homophobia (Kelly et al., 2018). Quantitative research also reported lower satisfaction among gay and bisexual men with prostate cancer health-care treatment compared to other survivor groups (Hart et al., 2014). Inequalities in service have led to mistrust towards the health-care system from other

marginalized groups. Black men in the UK have reported low levels of trust in the health-care system (Keating, 2007). In the United States, institutionalized racism has led some Black men to feel like the system is set up against them, meaning they do not seek help for prostate cancer symptoms (Forrester-Anderson, 2005). Previous studies have elucidated that Black men, and other ethnicities, may express anger towards the health-care system if they felt that their physician was not supportive enough in discussing changes to their sexual practices as a result of prostate cancer treatment (Kelly, 2009; Letts, Tamlyn, & Byers, 2010). According to Kelly et al. (2018), gay men are only one of the groups whose intimate sexual lives may be treated with some degree of taboo by health providers.

Some gay men reported that their urologists did not want to discuss the sexual effects on their sex lives, even when brought up by the patient (Lee et al., 2015; Simon Rosser et al., 2016b). Urologists should be prepared to discuss the sexual practices of gay and bisexual men in terms of prostate cancer treatment. It has been recognized that patients may be exposed to information which they may have difficulty remembering (Walker, Tran, Wassersug, Thomas, & Robinson, 2013), therefore it is prudent to ensure that gay and bisexual men are well apprised of the sexual effects of prostate cancer treatment. The detrimental psychological effects of failing to do this cannot be understated. Gay men are made to feel invisible (Rose et al., 2017), the assumption being made that they are heterosexual. Experiences of heteronormative discourse and practices can be particularly harmful to the psychological well-being of gay and bisexual men, especially when cancer has affected their sexual function (Kelly et al., 2018). In terms of sexual intercourse, erectile function suitable for oral and anal penetration is different from that of vaginal intercourse (Blank, 2005). Yet erections were discussed in terms of vaginal penetration (Simon Rosser et al., 2016b). Bisexual men also believed that health-care professionals were less supportive of them (Rose, Ussher, & Perz, 2017). Mainstream support groups were often off-putting due to their hetero-centeredness. They can be dominated by heteronormative discourse and imagery (Fish & Williamson, 2018). The atmosphere may not be conducive, or safe, for gay and bisexual men wanting to discuss their sex lives. It should also be noted that older gay men may have grown up at a time when homosexuality was illegal, and may have experienced discrimination, and so may be less forthcoming around heterosexual men. Social support aspects must be different for gay or bisexual men who are not fully open about their sexuality (Blank, 2005). Additionally, the overwhelming emphasis on wives will be problematic for men who are partnered with other men (Blank, 2005).

The data establish that men who were dissatisfied with the lack of support, often turned to a personal support network of friends and family, but greatly desired to converse with other gay or bisexual men who had undergone similar treatment. However, there was concern that care for gay and bisexual men with HIV has overshadowed care towards gay and bisexual men with prostate cancer (Hoyt et al., 2017) and has led to wonder if there will be solidarity from other gay and bisexual men in the same manner that there is towards those living with HIV/AIDS (Mitteldorf, 2005). Steps are being taken to address the gap in care. In the UK, a lack of support networks has been recognized (Prostate Cancer UK & Stonewall, 2013), with a virtual discussion group being implemented as part of a pilot scheme to cater for gay and bisexual men (Thomas, 2018). Support groups have been established in cities such as London, Manchester, Sydney, Los Angeles, and New York. Blank (2005) emphasizes that it is essential that the clinical oncology community is sensitive to the particular needs of gay and bisexual men because of their sexual orientation, while Kelly et al. (2018) argue that specialist nurses must spearhead practice that promotes equality and diversity in prostate cancer care.

Implications for practice

Evidence from this meta-synthesis postulates the importance of focusing on the salient needs of gay and bisexual men with prostate cancer. Far too often this group has gone unnoticed, and gay and bisexual men are left to feel disenfranchised by the health-care system. In the current climate, there is a need for gay and bisexual men to be supported by health-care professionals. Moreover, urologists must avoid approaching the needs of gay and bisexual men in a hetero-centric way. Allowing gay and bisexual men to express their needs and concerns in an open and engaging manner may improve the experience for them. The results in this meta-synthesis demonstrated that some men had not been fully informed about the side effects of prostate cancer treatment. Gay and bisexual men should be educated and given information at the initial meeting of the consequences of prostate cancer treatment, such as penile shrinkage. This would allow them to be fully prepared for the posttreatment side effects of prostate cancer.

The results of prostate cancer treatment affect gay and bisexual men differently than heterosexual men, and the evidence confirms this. However, it was discovered that gay and bisexual men can be influenced by the same hegemonic masculine ideology that heterosexual men can be subjected to. Subsequently, there is a need for more gay and bisexual support groups that would allow them to talk freely and to gain support from other men who are experiencing similar challenges to their lives. If

a safe environment is provided for gay and bisexual men, they are more likely to feel that their needs are considered and are being addressed. By understanding the issues, health-care professionals could improve the outcomes for gay and bisexual men with prostate cancer.

Conclusion

This meta-synthesis has identified how gay and bisexual men are affected by prostate cancer and its treatments. The focus of this meta-synthesis was on the experiences of gay and bisexual men following prostate cancer treatment. The evidence suggests that gay and bisexual men can have specific sexual roles and developing prostate cancer and undergoing treatment may compromise their role, thus leading to some men experiencing physical, sexual, and psychological challenges. Single men felt that they would become undesirable. Gay and bisexual men could adapt by changing their sexual role, or opening their relationships to alleviate sexual pressure, two options that have not been reported in heterosexual relationships. What is clear in the literature is that gay and bisexual men have different needs to that of heterosexual men. However, the literature illustrates that the needs of heterosexual men are accommodated more often than that of gay and bisexual men because of heteronormative ideals. It is important to consider the needs of all groups, including gay and bisexual men. Failing to address their needs and concerns makes for an inequitable society and reinforces invisibility and marginalization of gay and bisexual men with prostate cancer. This study adds value to the existing body of knowledge, as no study has been conducted that synthesizes the experiences of gay and bisexual men post prostate cancer treatment.

Limitations and Future Research

It is important to note the limitations of this review. This review obtained six studies that met the inclusion criteria and, although insights into gay and bisexual men experiences were identified, more studies from different ethnicities would have broadened its depth. Moreover, the results yielded studies from three developed, Westernized countries: Australia, Canada, and United States. As such, their findings must be treated with caution in respect of applicability.

This study synthesized qualitative papers and, although the inclusion criteria stated this, it is important to recognize that this is a limitation in itself. Using quantitative papers could have enhanced the depth and breadth on gay and bisexual men with prostate cancer. Additionally, it would be useful to examine gay and bisexual men's quality of life to determine how health-care systems and

health-care professionals could respond to these specific needs. Exploring the use of online technology to support gay and bisexual men could warrant further research.

This meta-synthesis used six databases and had extra databases been used the researchers could have captured more papers to be included in the review. Furthermore, this study drew on papers written in English and did not incorporate other languages. Of all the studies used in this meta-synthesis, none were from the UK. There is a need for studies to address gay and bisexual men's experiences of prostate cancer post treatment in a UK context. Further studies should also look at the experiences of transgender women.

Author's Note

Approval was obtained from all participants in each study.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

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