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The effects of radical prostatectomy on gay and bisexual men's sexual functioning and behavior: qualitative results from the restore study

B.R. Simon Rosser^a, Benjamin Capistrant^a, Maria Beatriz Torres^b, Badrinath Konety^c, Enyinnaya Merengwa^d, Darryl Mitteldorf^e, and William West^f

^aDivision of Epidemiology and Community Health, University of Minnesota, Minneapolis, MN, USA

^bDepartment of Communication Studies, Gustavus Adolphus College, St. Peter, MN, USA

^cDepartment of Urology, University of Minnesota, Minneapolis, MN, USA

^dDepartment of Family Medicine and Community Health, University of Minnesota, Minneapolis, MN, USA

^eMalecare, New York, NY, USA

^fDepartment of Writing Studies, University of Minnesota, Minneapolis, MN, USA

Abstract

To advance research on the sexual effects of prostate cancer in sexual minorities, we conducted telephone interviews with 19 gay and bisexual men (GBM) who had undergone radical prostatectomies. Challenges to sexual functioning included anatomical penile changes, loss of ejaculate, climacturia, and erectile dysfunction. All sexual behavior with other men, not just insertive anal sex, was affected, across all stages of the sexual response cycle. Rather than narrowly focusing on erectile functioning, rehabilitation for GBM needs to be comprehensive in addressing anatomical changes, sexual behavior comprehensively, and functioning across the sexual response cycle. Seven recommendations for practitioner education are identified.

Keywords

Erectile dysfunction; orgasm; psychiatric treatment; relationship factors; sexual orientation

Introduction

Lesbian, gay, bisexual, and transgender individuals experience unique health disparities (Institute of Medicine, 2011). With the possible exception of research into HIV, gay and bisexual men (GBM) have been the subject of relatively little health oncology research.

CONTACT B.R. Simon Rosser, rosser@umn.edu.

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Indeed, a 2011 Institute of Medicine report on the *Health of Lesbian, Gay, Bisexual, and Transgender People* cites the lack of research into prostate cancer in GBM as an example of disparities in health research negatively impacting sexual minorities (Institute of Medicine, 2011).

By extrapolation, between 124,839 and 174,774 GBM are living with a diagnosis of prostate cancer; including 43,693 to 104,864 men in male couples (Rosser, et al. 2016). One-in-six GBM and one-in-three male couples will receive a diagnosis in their lifetime, making prostate cancer the second most common cancer in GBM, and male couples the most common relationship configuration to encounter prostate cancer. Despite this, we could find only one surveillance paper, a study using 1993–1996 data which found no disparities in prevalence or incidence (Rosenblatt, Wicklund, & Stanford, 2001). Against this, three of only four quantitative studies report a range of poorer outcomes for GBM compared to heterosexual men. These include worse sexual functioning following anti-androgen treatment (Motofei, Rowland, Popa, Kreienkamp, & Paunica, 2010), lower scores on urinary, bowel and hormonal domains (Hart, Coon, Kowalkowski, & Latini, 2011; Lee, Breau, & Eapen, 2013) worse sexual functioning in two studies (Hart et al., 2011) but better sexual functioning in another (Hart et al., 2014), more sexual bother (Lee, et al., 2013) and different treatment choices (Hart et al., 2011) than norms published for heterosexual men (or men in general). A fourth study found no differences in outcomes, but reports that GBM had lower Gleason scores compared to heterosexual men, suggesting that GBM may be diagnosed earlier (Dowsett, Lyons, Duncan, & Wassersug, 2014; Wassersug, Lyons, Duncan, Dowsett, & Pitts, 2013). In addition to four studies being inadequate to form an empirical base, all four studies have relatively small GBM sample sizes and did not control for treatment received across arms.

While GBM and heterosexual men share many similar challenges in rehabilitation (Latini, Hart, Coon, & Knight, 2009), a small qualitative literature attests that GBM with prostate cancer faces additional challenges. These include the loss of ejaculate (which authors emphasize is more central in gay sex (Harris, 2005; Mitteldorf, 2005)), the observation that anal sex requires stronger erections than vaginal sex (Blank, 2005) so that rehabilitation may be less successful, the loss of the prostate as a site for sexual pleasure in receptive anal sex (Santillo & Lowe, 2005; Smith, Filiault, Drummond, & Knappman, 2007), and persistent rectal irritation or pain sufficient to prevent receptive anal sex (Blank, 2005; Goldstone, 2005). Some changes in role-in-sex following treatment for prostate cancer have been reported (Hart et al., 2014) but how frequent or possible this is for GBM has not been studied.

Compounding this disparity, many urologists may conceptualize rehabilitation in heterocentric terms. While the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* (American Psychiatric Association, 2013) defines “sexual dysfunction” as “a clinically significant disturbance in a person’s ability to respond sexually”, erectile functioning for prostate cancer treatment is typically operationalized as “sufficient for vaginal penetration” (Blank, 2005; Hong, Lepor, & McCullough, 1999; Latini, et al., 2002). We reviewed 12 commonly used erectile functioning scales in prostate cancer treatment (Abraham, Symonds, & Morris, 2008; Althof, et al., 1999; Cappelleri, et al., 2004; Keller,

McGarvey, & Clayton, 2006; Lukacs, Comet, Grange, & Thibault, 1997; McGahuey, et al., 2000; Mulhall, Goldstein, Bushmakim, Cappelleri, & Hvidsten, 2007; Mykletun, Dahl, O’Leary, & Fossa, 2005; Porst, et al., 2007; Reynolds, et al., 1988; Rosen, Cappelleri, Smith, Lipsky, & Pena, 1999; Rosen, et al., 1997; Rosen, et al., 2004; Wagner, Patrick, McKenna, & Froese, 1996; Wince, et al., 2004; Woodward, Hass, & Woodward, 2002), finding 7 (58%) defined intercourse or penetration, vaginally. As Blank (Blank, 2005) notes, this gold standard is “irrelevant for gay sex.”

Sexual function is an important component of health (Rosen, 2003) and predictor of quality of life (Beutel, Schmacher, Weidner, & Brahler, 2002; Lauman, Paik, & Rosen, 1999), including for GBM with prostate cancer. But we lack in-depth studies of the effects of surgery on GBM, their sexual behavior and functioning. The primary purpose of this formative research was to learn about the effects of prostate cancer treatment from these GBM in their own words. Because radical prostatectomy is the most common surgical therapy recommended by 95% of US urologists (Eastham & Scardino, 2002; Kirby, 1998; Santillo & Lowe, 2005), and also because different treatments may have different effects, this analysis is restricted to GBM who had radical prostatectomies.

Methods

This study used a qualitative design, informed by grounded theory (Strauss & Corbin, 2008), and was approved by the University of Minnesota Institutional Review Board (1408S52902).

Study participants and recruitment

Study participants were recruited via *Malecare*, the USA’s leading men’s cancer support group (both online and in-person groups) and advocacy organization. Of particular note for this analysis, *Malecare* offers specific online support groups for GBM with prostate cancer as well as for GBM with erectile problems. *Malecare* members received an email with information about the study and which encouraged them to participate. Information about the study was also included in *Malecare*’s e-newsletter. Any interested *Malecare* member could click on the link in the email/newsletter communication. This took them to this study’s website where they could complete the screener to determine if they were eligible. The study eligibility criteria were: adults aged 18+, English-speaking, GBM diagnosed with, and treated for, prostate cancer, and living in the USA. Those interested and eligible completed an online informed consent process and scheduled a time for a one-on-one telephone interview.

The study used a stratified, purposive sampling approach to recruit GBM with prostate cancer. The sample was stratified a priori – surgery/radical prostatectomy, radiation therapy, and any other treatment – to gather sufficient depth of experience across the three most common types of prostate cancer treatment. Because radical prostatectomy is the most common treatment for prostate cancer, and because treatment effects vary by treatment type, this analysis focuses only on the experience of men who underwent a radical prostatectomy.

Participant characteristics are presented in Table 1, and identified as MSU1 to MSU19 in the text. The typical respondent was in his early sixties (range: 48–72 years), gay identified,

Caucasian, HIV-negative, who had had a radical prostatectomy between 5–10 years before, and was offered and had tried multiple treatments for the sexual effects of treatment.

Data collection

The semi-structured interview started with demographic questions, after which the participant was asked to discuss his experience with prostate cancer, detailing when diagnosed, risk factors, treatment(s) undertaken, health status since treatment, whether sexual rehabilitation was offered, what type(s), and the participant's experience in rehabilitation. Next, the interviewer asked about sexual functioning – before, immediately after treatment, and currently – with follow-up probes on how prostate cancer has affected the participant's sexual life. Probes investigated functioning across each phase of the sexual response cycle (Masters & Johnson, 1981), by behavior (manual, oral, vaginal, and anal) and role (insertive or receptive). Then, the participant identified the major challenges he has experienced living with prostate cancer, including any changes in sexual behavior, role-in-sex, sexuality, condom use, relationships, and negative outcomes. The interviewer inquired about any success stories and/or strategies the participant used to meet these challenges. Finally, the participant was asked for input on how to make future interventions for sexual rehabilitation from prostate cancer most accessible for GBM with prostate cancer. The interviews lasted between 60–90 minutes, and they were conducted between March and July 2015. Investigators considered theoretical saturation (Strauss & Corbin, 2008) – when new data yielded neither additional concepts nor further insights into existing categories – throughout data collection. Study recruitment ended when we determined that sufficient saturation had been reached.

Data analysis

Thematic analysis and grounded theory approaches guided this data analysis. Two investigators independently undertook a coding process that involved line-by-line coding – inductive and deductive – of the transcribed interview. Individual codes were then organized into emerging larger categories (Charmaz, 2014). For example, individual codes about reported changes to the penis after surgery (e.g. “change in penis color,” “reduction in penis size”) were grouped into a larger category (e.g. “anatomical changes”). As a multitude of comments on sexual functioning emerged, we used Masters and Johnson's sexual response cycle (Masters & Johnson, 1981), adapted for prostate cancer treatment to include libido as a separate pre-requisite. Differences between independent coders were examined. A constant comparison method was used to determine patterns of consistency and difference through the data. The lead analyst resolved differences between the two coding approaches in conjunction with the other investigator/coder and key team members. The clustering and organization of these data were done in Microsoft Word and Excel. This process of bringing findings to the larger investigator team served as a form of expert review and offers analytic validity to this study.

Results

From this analysis, two large, rich groups of changes to sexual function emerged from the 19 GBM's experiences with prostate cancer and radical prostatectomy: anatomical changes and

behavioral changes. In addition, there were specific findings that emerged with respect to particular stages or phases of the sexual response cycle (Figure 1).

Anatomical changes and challenges

Four anatomical changes were identified by participants as particularly challenging. First, many men reported anatomical changes such as reduction in penis size, changes in shape, color, and/or curvature of their penis, post-surgery. None of the respondents who reported penile shrinkage reported being warned about this possibility, and one even noted a disagreement with his urologist(s) that it had occurred:

It's like I had a penis transplant. That was the hardest thing...the cancer was easy!
[MSU06]

The biggest surprise for me was how my penis was unrecognizable. It did not look the same. They don't tell you that ...it scared the daylights out of me. [MSU04]

I told the surgeon that my dick was smaller, and he said, "No, no, no, that's it's not." I said, "Yeah, yeah, yeah, it is, too... but when it's your own dick and it's been in your hand so many times you know that, whoa, this is a little different.
[MSU09]

In contrast to penile changes, all respondents reported being warned, pre-surgery, about losing their ability to ejaculate. How men adjusted to not being able to ejaculate varied widely. Some GBM reported this as a major emotional loss both to them; and, for some, to their partners. And at least one respondent hid his loss of ejaculate by using condoms:

The fact that I don't have any cum doesn't bother me too much. At first it seemed weird. [MSU07]

There have actually been men who have told me, "Well, if nothing's coming out, then this won't work for me." For me, personally... that's the best thing you told me. All I ever want to do with it [ejaculate] is get up and clean it up. It's cold. It's wet. It's sticky. I just want it gone. [MSU01]

Part of that change is loss. I can't tell you how much I miss cum. I miss it. I use a coconut shampoo because it feels and looks like cum. I love to touch that stuff. Those things are losses. When you have a loss, you really have to grieve, you have to mourn something that you love that you don't have anymore. [MSU19]

That's another good reason why I like condoms, because nobody knows what's going on. Nobody checks them. [MSU03]

All respondents reported being warned that erectile dysfunction (ED) might be an effect of treatment. Almost all reported experience ranging from temporary minor challenges to chronic, permanent ED. Erectile strength was a stated concern, but here, respondents questioned what was due to surgery and what was due to normal aging. Most reported trying one or more erectile aids. In addressing their ED, multiple respondents reported urologists talking about and measuring erections in heterosexual terms as a problem. For most respondents, regaining erectile function was an important goal:

Things got back to normal for me about a month after the surgery. Normal is waking up with an erection. Normal is being able to masturbate and enjoy it. [MSU06]

For at least 2 years, I really wasn't getting anything. [MSU1]

They referred to the standard of an erection capable of vaginal penetration, that was the standard that was used, and I just didn't get into it with them. [MSU03]

I was not willing to accept that I would not be able to top again. Once I realized that there was a chance, that I would be able to have sex and would be able to achieve erection, I wanted to do everything that I could to see to it that I got maximum (pun-intended) impact. [MSU01]

With enough work and dedication between you and your partner you can have a very enjoyable sex life. I guess I would say I wish there were more therapists and nurses available to do the counseling, more doctors that are comfortable enough talking about sex to give you advice about options and techniques and things like that. Where I live in the South, there's just nothing like that available. [MSU17]

Urine was also a concern for several respondents. First, some men reported the smell or leakage of urine as disgusting or a sexual turn-off (e.g. for oral sex). Second, climacturia (expelling urination at orgasm) was identified as a barrier to having sex:

As a matter of fact, I don't take my clothes off because I'm embarrassed and humiliated. I have what they call arousal impotence. If I am having any kind of a sexual arousal, I leak, so I have to wear a pad. That's part of the reason my husband and I no longer have sex. He's not into that, and I don't blame him ...it's disgusting ...it's urine. [MSU05]

But I didn't think he was going to want to give me oral sex with [my penis being] a wet noodle ... That didn't bother him at all. I said, 'When I'm about to climax I'm going to tell you because I may be shooting urine' and he said, 'How much?' I said, 'Oh, you know, several drops.' He said, 'Oh, we're only talking about drops?' I was fortunate and I've actually had more oral sex since my surgery than I had before. [MSU18]

Behavioral challenges

Respondents discussed radical prostatectomy as strongly affecting all their sexual behavior. Many respondents reported trying to masturbate without an erection in the immediate post-surgical period. Challenges for oral sex, secondary to loss of ejaculate and urine concerns, resulted in some men avoiding sex while others reported being rejected by partners. For vaginal sex, surgery was noted as a reason by at least two respondents to discontinue it with their wives:

Masturbation: It was encouraging to realize that I could wiggle it to orgasm [but] the feeling was not the same. [MSU19]

Oral sex: I really [didn't] like giving blow jobs that much, to be honest... Now, I find I just have this incredible craving for it. Since I don't have it [ejaculate], I

would just love to go down there, obviously... oh, my God, to just taste it again and swallow it and just have it in my mouth. It's like a much more powerful motivator now. [MSU12]

Oral sex is very important, and when you're pumping out urine, it's like, 'Oh, dear God, This isn't going to work.' To have that? That was a huge hurdle to have that fixed. [MSU09]

Vaginal sex: My wife and I no longer have sex, because I'm not sure that I can get enough of an erection for penetration. We do other things but we, I mean, vaginal sex we don't do. I haven't been with a guy since [either]. [MSU09]

Insertive anal sex was an important challenge identified by interviewees. Some men reported their inability to penetrate as "devastating" to them, some reported switching roles to be the receptive partner, while others stated role change was not possible for them. In addition, some GBM adopted novel substitution behaviors to circumvent penetration, including using dominant-submissive role play to maintain the role of "top" without having to actually engage in penetrative sex, or substituting other behaviors (e.g. nipple play) for penetrative sex:

I was a top. I am a top, I guess. I have been very sexually active my entire life, and it was very important to me. Losing it was just devastating. [MSU05]

Insertive anal sex: I buckle. That's the best word I can think of. I can't do the penetration. But, again, it's not something that I find to be necessary as part of my sex play. [MSU10]

I have the mindset of a top. I have one sex partner who likes to be submissive, so ... we can play bondage games. He doesn't want to be penetrated, but there are other ways that I can fulfill or satisfy my needs of being a dominant top and he is satisfied by being submissive, and it just can work even without the anal penetration. A lot of guys aren't even into that. [MSU10]

I guess I substitute with nipple play what might have happened previously. [MSU02]

Increase in pain and/or loss of pleasure in the rectum dramatically changed the experience of receptive anal sex for some men. All GBM who reported engaging in receptive sex or anal stimulation reported difficulty raising this with their specialist; and specifically, not knowing when it was safe for them to re-initiate behavior.

Bottoming seems a little more clinical... There's just no extra sensation like there seemed to be before, whatever that is, that extra sensation. I guess it was the prostate being rubbed and massaged. [MSU04]

When should you be starting to try to stimulate yourself? I think a lot of people think they want to bottom six weeks after surgery and I'm like, 'You're nuts. [MSU03]

There is pain if I use toys [to stimulate self, anally]. It's like someone is cutting me inside. [MSU15]

Changes across the sexual response cycle

Respondents noted significant changes to their sexual functioning across all parts of the sexual response cycle. Those who reported a decrease in sexual desire wondered if this was an effect of surgery or normal aging. Changes in the excitement phase were emphasized by men using erectile aids and/or pornography to sustain sexual interest. While some respondents reported being grateful for erectile aids, others commented that it qualitatively changed their experience or deprived them of spontaneity or foreplay. The principle challenge which multiple men mentioned during the plateau phase was the inability to regain an erection if they lost their erection. They described their erections, in that sense, as more fragile. In contrast to almost all the other changes which were viewed as negative, orgasms were commonly reported as a positive change; experienced as more intense, generalized and full bodied. Several men also reported an adjustment in learning the difference between ejaculation and orgasm, post-surgery. And at least two respondents reported changes in the resolution phase and/or refractory period, either secondary to the use of injections or medicated urethral system for erection (MUSE), or improved ability to continue sex.

1. Sexual desire phase: "My libido is much less that it was before [the surgery]. It comes and goes much more [was 55 at time of surgery, now 63]." [MSU13]
2. Excitement phase: "It's not like it was. I used to equate sex to orgasm, and after I had the implant put in and had sex subsequent to that, I discovered that it's much more than an orgasm. It's the whole leading up. It's the whole getting erect – the whole foreplay. All of that is integral to it, and with an implant, there's almost no foreplay. It's soft one minute and it's rock hard the next minute, and it's very mechanical." [MSU05]
3. Plateau: "Watching porn is helpful ... to get you excited. It's difficult to prolong sexual excitement and to keep it going. If I lose the erection, it's hard to get it back." [MSU02]
4. Orgasm: "For me, actually, I have to say my sex life is better. The orgasms are way more intense than they ever were before, much more longer lasting." [MSU03]

"The orgasms I have now are like when I was a pubescent. I feel it in the rear, right hand side of my brain." [MSU06]
5. Resolution/refractory period: "I can actually sometimes cum more than once ... I think your brain sort of says, 'When the liquid comes out, tell your brain to shut down.' I don't have that signal anymore to shut down, and so I can keep going, so I do." [MSU03]

Discussion

There are at least five limitations to keep in mind in interpreting these results. First, self-report data are subject to such limitations as self-awareness, subjective interpretation, and self-censorship. Second, while qualitative research may provide insights into people's experiences and reveal patterns of similar behavior, the method is inductive so we caution

against making quantitative inferences from these data. Third, this analysis is restricted to GBM who had radical prostatectomies. Generalizing from these results to other treatments or all GBM with prostate cancer is not valid. Fourth, the men in this study varied in age and duration since surgery, two variables which may dramatically alter self-report. Finally, the sample was mainly white, HIV-negative, and we caution only one identified as “bisexual.” Generalizability beyond white, HIV-negative, gay men should not be assumed.

There are three main findings from this study. First, how GBM respond after surgery depends, in large part, on what their specialists discussed or failed to discuss with them. Where the respondents were adequately warned about the sexual effects of surgery (e.g. about loss of ejaculate or ED), they appeared better able to adjust than when they reported that their urologists failed to warn them or discounted their experience (e.g. about changes in penile size, shape, or climacturia). Second, the sexual effects of surgery appear pervasive, affecting all sexual behaviors and comprehensive across each stage of the sexual response cycle. Limited discussions with specialists that frame surgery as only affecting insertive sex, penetration or vaginal sex, fail to address surgery’s effects on all sexual behavior; and fail to prepare men for common negative (e.g. sustaining erections) and positive (e.g. enhanced orgasms) outcomes. Third, while radical prostatectomy may affect GBM and heterosexual men in many similar ways, there are important differences. We highlight the effects on both insertive and receptive anal sex, the broader effects on non-penetrative behavior, and the reactions of male partners (e.g. to loss of ejaculate or climacturia) which may differ from female partners.

In addition, there was tremendous diversity in the degree to which GBM’s sexual lives appear affected. Some respondents reported only mild, transient challenges; others described the effects as profoundly and permanently altering their sexual lives. Also, while most changes were almost universally reported as negative; some changes such as loss of ejaculate (for a few men), or more intense orgasm were viewed as positive outcomes.

These findings have important implications for the clinical care and the sexual recovery of GBM following radical prostatectomy. Given the distress reported for anatomical changes, pre-treatment education needs to adequately address all the common effects of treatment. The diversity of treatment outcomes on GBM necessitates that rehabilitation will need to be tailored to each GBM’s situation. We recommend that an adequate sexual history is taken, prior to surgery, to address the likely consequences of treatment on specific behaviors, to establish goals for rehabilitation, and to create the conversation needed for GBM to ask about specific concerns (e.g. when to re-initiate anal stimulation after surgery). In particular, urologists should avoid six mistakes respondents reported as distressing or offensive: (1) assuming that they (or all men) are interested in vaginal sex; (2) assuming that if they are not married and older, they are celibate; (3) assuming their role in anal sex (as insertive, receptive, or versatile); (4) assuming that all GBM can simply change roles in sex from insertive to receptive; (5) relying on the patient to raise questions about receptive sex; and, (6) assuming GBM know to ask or are able to ask about sexual rehabilitation if they need it. Rather than narrowly focusing on erectile functioning and penetrative sex, rehabilitation needs to be comprehensive addressing anatomical changes, all sexual behavior, and treatment effects across all stages of the sexual response cycle.

Currently, only about 44% of medical schools in the USA provide sexual education to their medical students (Malhotra, Khurshid, Hendricks, & Mann, 2008), and none to our knowledge provide competency in sexual minority health training for urologists, oncologists, and other prostate cancer specialists. To address these inequalities in cancer care, urologists, surgeons, and other specialists will need specific education about GBM's sexual behaviors, sexualities, the effects of treatment on GBM's sexual lives, and the profound impact sexual difficulties can have on the patients' well-being and recovery. At a minimum, it is necessary to raise awareness of the sexual difficulties associated with prostate cancer treatment that many GBM experience. Although a good start, teaching specialists to avoid heterosexist language (e.g. replace "wife" with "spouse" or "anal sex" for "vaginal intercourse") is not a substitute or sufficient for competent care. Based on the experiences GBM reported in this study, teaching specialists how to take a sexual history, how to give patients permission to ask sexual questions, how to avoid heterocentric language and assumptions, how not to presume sexual behavior or flexibility of role-in-sex change with GBM, how to address both insertive and receptive anal sex concerns, and the importance of not discounting the patient's experience (e.g. about penis size or the importance of ejaculate) need to be stressed. Given the time constraints on some specialists, taking a detailed sexual history may not always be feasible. In such cases, teaching specialists what key questions about sex and sexuality to ask may be sufficient to address the main concerns. For larger practices, training nurse educators and psychologists to broaden their focus on penile rehabilitation to address the sexual effects of treatment comprehensively on the whole sexual experience may improve outcomes (both for GBM and heterosexual men). In addition, GBM should also be educated to alert the provider to their needs and seek specific information regarding their situation. Finally, to support competent medical care, supplementary education materials that address gay sex and GBM's sexual concerns need to be developed.

Conclusion

In this, the largest qualitative study of GBM men who have undergone radical prostatectomy conducted to date, there were three main findings. First, GBM appear better able to adjust when their specialists discuss sexual effects of surgery in detail, than when they omit to discuss common outcomes. Second, the effects of surgery on GBM's sexual functioning are pervasive affecting all sexual behaviors and comprehensive across all stages of the sexual response cycle. Treatment discussions that just focus on penetrative sex are insufficient. Third, because GBM's sexual lives differ in some important aspects from their heterosexual peers, GBM have questions that almost universally were not addressed (and which may affect outcomes). More comprehensive pre-treatment education, sexual history taking, and urologists avoiding sex assumptions may improve the clinical experience for GBM undergoing radical prostatectomies.

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Biographies

B.R. Simon Rosser is a psychologist, epidemiologist, and clinical/research sexologist specializing in GBM's sexual health. His research focuses on studying GBM sexual dysfunction, sex between men, physician-GBM patient communication, mental health, Internet methods, sex measure development, evaluation of sexual health interventions, human subjects and in leading NIH behavioral trials.

Benjamin Capistrant is an assistant professor at the University of Minnesota and a member of the Minnesota Population Center. His research focuses on social determinants of aging and non-communicable diseases, both in the U.S. and in low and middle income countries. He is particularly interested in the interplay between family dynamics and health in old age. He completed his masters and doctoral training in social epidemiology at Harvard University and postdoctoral training in population aging at University of North Carolina – Chapel Hill.

Maria Beatriz Torres is an associate professor of communication studies and was awarded Mexico's National Council of Science and Technology and Fulbright scholarships. She consults and trains health care organizations on effective cross-cultural communication. Her scholarship looks at the intersection between culture and health communication. She is involved in several community-based participatory action research projects developing entertainment education media to promote the health of Latino, Hmong, and Somali immigrants in Minnesota.

Badrinath Konety is a prostate cancer specialist who leads the biomedical and oncological aspects of the study.

Enyinnaya Merengwa is a physician-scientist and a cancer health disparities epidemiologist at the University of Minnesota. He has earned a Medical Degree (MD), Master of Public Health (MPH) degree in Epidemiology and currently enrolled in a Doctor of Public Health (DrPH) degree program.

Darryl Mitteldorf wrote some of the first clinical articles of GBM with PCa and founded Malecare, the largest organization serving GBM with PCa. A community-based collaborator, he will lead recruitment, attend meetings by Skype, and participate in the write up of results.

William West is an online communications specialist who will design the interactive, online curriculum for GBM with PCa. As an out GBM with PCa, he will also serve as our participants' advocate.

Figure 1.

Visual schematic of the effects of radical prostatectomy on gay and bisexual men's sexual functioning and behavior.

Table 1

Demographic characteristics of the sample.

Age (Av = 61.9 years)	
48–49	1
50–59	6
60–69	8
70–72	4
Sexual identification	
Gay	18
Bisexual	1
Race/ethnicity	
White, non-Hispanic	18
African-American	1
HIV status	
HIV-positive	1
HIV-negative	17
Unsure	1
Residence (by region of the country)	
West (CA, WA)	2
Midwest (KS × 2, MN × 2, IL × 2)	6
Northeast (MA, NY × 3, RI)	5
South (FL, OK, WV, AZ)	4
Overseas at time of interview	1
Missing	1
Years since diagnosis	
Less than 1 year	1
2–4 years	3
5–10 years	9
10–13 years	4
Not specified	2
Treatments offered	
Behavioral therapy	10
ED drugs	16
Vacuum pump	6
Penile injection	12
Penile implant	3
Insertable pellets	3
Kegels	2
Therapy	6
None	2
Missing	1
Treatments tried	

Behavioral therapy	12
ED drugs	17
Vacuum pump	8
Penile injection	10
Penile implant	1
Insertable pellets	3
Therapy	6
None (because no help was needed)	1
Missing	1

Note: Length of interview: average: 79.42 minutes ranging from 47—118.