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Fear of recurrence: the importance of self-efficacy and satisfaction with care in gay men with prostate cancer

Lindsey A. Torbit¹, Jenna J. Albiani¹, Cassandra J. Crangle¹, David M. Latini², and Tae L. Hart^{1,*}

¹Department of Psychology, Ryerson University, Toronto, Ontario, Canada

²Scott Department of Urology, Baylor College of Medicine, Houston, TX, USA

Abstract

Objective—Limited research has investigated the psychosocial processes that underpin the effect of physical symptoms on fear of cancer recurrence. Additionally, despite evidence of increased vulnerability of marginalized populations to negative outcomes, few studies have examined the unique experience of gay men coping with the cancer process. The goals of this study were to determine whether disease-related self-efficacy and satisfaction with medical care mediated the relationship between greater physical symptoms and worse fear of recurrence among gay or bisexual prostate cancer survivors.

Methods—Participants were composed of 92 self-identified gay or bisexual men, who had received a diagnosis of prostate cancer in the past 4 years. Participants provided demographic information and completed self-report questionnaires that assessed symptom function, self-efficacy for prostate cancer symptoms, satisfaction with healthcare, and fear of recurrence. Bootstrapping procedures were used to assess for significant mediation.

Results—Results suggested significant mediation of the relationship between each of bowel, hormonal, and sexual function with fear of recurrence by self-efficacy and satisfaction with healthcare. Mediation was not significantly supported for the association between urinary function and fear of recurrence.

Conclusions—Findings support the explanatory effects of self-efficacy for symptom management and satisfaction with healthcare on the relationship between symptom function and fear of recurrence. These results indicate that psychological processes, specifically psychological factors that hold particular relevance to gay or bisexual men, reflect a potential avenue for intervention to decrease fear of cancer recurrence.

Background

Prostate cancer (PCa) is the most common cancer among North American men [1]. Significant advances over the last 20 years have enabled earlier detection and improvement in treatment, resulting in an increase in the survival rate [2]. Indeed, deaths due to PCa decreased on average 1.6% per year between 1990 and 1996, and the 5-year relative survival

rate today among North Americans is estimated at nearly 100% [1]. Increased survivorship has led to a substantial number of men living with the psychological and physical sequelae of PCa diagnosis and treatment, challenging researchers to address the multidimensional needs of survivors. One of the most frequently reported and distressing outcomes for those diagnosed with PCa is a heightened fear of cancer recurrence (FOR) [3]. Beyond this significant prevalence, FOR is also associated with numerous negative outcomes, such as increased distress and anxiety and poorer quality of life (QOL) [2].

Heightening awareness of the burden of FOR has led to an increase in research aimed at identifying variables associated with higher levels of FOR. Worse physical health—particularly severity of physical symptoms—is a significant correlate of FOR [3]. This reliable association between physical symptoms and FOR is particularly important for PCa survivors, whose treatment can produce multiple side effects, including urinary and bowel problems, hormonal symptoms, and sexual problems

Although the association between demographic variables (e.g., age and education), physical symptoms, and FOR is well-established, there is limited information on the psychological processes that link these predictors and FOR. Extant research suggests that one's subjective appraisal of physical symptoms may be one avenue through which FOR is amplified, such that higher levels of physical symptoms after PCa treatment may be associated with greater FOR by increasing the focus of attention on cancer [11]. Further, experimental evidence suggests that somatic cues, such as the occurrence of physical symptoms, are associated with beliefs about vulnerability and cancer worry [12]. Indeed, survivors may attribute even unrelated symptoms to cancer recurrence [11]. Easterling and Levanthal [12] found that even common, noncancer-like symptoms play a significant role in evoking worry about cancer, both by activating existing threat cognitions and by enhancing the perception of risk. Further research has demonstrated that high threat appraisals, such as the appraisal of physical symptoms, and low coping appraisals are associated with highest FOR [13,14].

As such, health-related self-efficacy, the perception of one's ability to cope with and manage disease-related symptoms [15] may be particularly relevant in this context. Research in HIV/AIDS has demonstrated that adopting effective symptom management behaviors helps to alleviate the burden of physical symptoms [16]. Further, among those with rheumatoid arthritis and osteoarthritis, self-efficacy has also been correlated better subjective health [17], less pain and stiffness, better function, and better physical and mental well-being [18]; it has also been correlated with positive changes in pain, function, and depression [19]. Therefore, chronically ill patients with high health-related self-efficacy are less likely to have negative psychological outcomes and to report less symptom severity [20]. In addition to its link with physical symptoms, self-efficacy has been found to be negatively related to anxiety in breast cancer patients in a study by Larson *et al.* [21]. In this study, self-efficacy was found to be a protective factor against FOR, attenuating the relationship between known predictors, such as younger age and FOR. Further, PCa survivors who positively rate their self-efficacy for symptom control positively tend to report better physical functioning related to urinary, bowel, and hormonal symptoms and better mental health [22].

In addition to self-efficacy to manage one's physical symptoms, feelings about one's quality of medical care may also impact FOR. Previous research suggests that physical symptoms are associated with satisfaction with care, for example, breast and colorectal cancer patients who reported that their healthcare needs were not met reported greater symptom distress [23]. Patients who question whether their physician is following up thoroughly enough and patients who feel that their physicians do not have control over their health have reported greater FOR [24]. Further, recent research in PCa patients has demonstrated that those who were less satisfied with their care experienced worse FOR, and further, that declines in sexual, urinary, and bowel function were also associated with less favorable satisfaction with care [25]. These data suggest that lower satisfaction with care is associated with worse physical symptoms and may also play an important role in experiencing FOR.

Fear of cancer recurrence has been studied more extensively in survivors of cancers other than PCa, particularly breast cancer, and data suggest certain subgroups of patients may be particularly vulnerable to FOR. For example, one systematic review reported that younger age, lower level of education, lower level of optimism, and being Hispanic were consistently associated with higher levels of FOR in long-term cancer survivors [4]. Importantly, there is evidence that marginalized populations may be especially vulnerable to negative outcomes associated with cancer survivorship. Specifically, prior research in PCa survivors has demonstrated that African American [5] and gay men [6,7] experience an overall lower level of mental and physical health-related QOL. However, investigations of FOR in marginalized populations, such as gay men with PCa, are lacking despite mounting evidence that sexual minorities have worse health outcomes than their heterosexual counterparts [8].

The nature of the physical symptoms associated with treatment (i.e., urinary and bowel problems, hormonal symptoms, and sexual problems) highlights the differential impact that treatment may have for gay men compared with heterosexual men. Indeed, one recent study showed that gay men with PCa reported worse sexual functioning and satisfaction than heterosexual men [9] as well as more bother about sexual functioning [7]. Typical treatments for erectile dysfunction may not be appropriate for gay men who engage in anal intercourse as anal penetration requires a greater degree of erectile rigidity than vaginal intercourse [10]. Further, primarily anal receptive gay men may be more concerned with maintaining bowel function and reducing pain and irritation, with erectile function being a less central concern for their sexual function [10]. Therefore, increased physical symptoms due to poor treatment outcomes may be a unique reason why gay men may be susceptible to FOR.

Furthermore, satisfaction with medical care has been shown to be a significant problem for gay men, as healthcare providers do not always provide culturally competent care [26]. Many gay men do not disclose their sexual orientation to healthcare providers due to fears of homophobia, discrimination, and substandard care [27]. Therefore, the goal of the current study was to examine psychological mediators of the relationship between physical symptom appraisal and FOR: disease-related self-efficacy (i.e., the sense of control and involvement in one's treatment) and satisfaction with PCa medical care for gay men.

Method

Participants and procedures

This study was approved by the Institutional Review Boards at Ryerson University in Toronto and at Baylor College of Medicine in Houston. Participants were considered eligible if they self-identified as a gay or bisexual man, and if they had received a PCa diagnosis in the past 4 years. Participants were recruited from the community across Canada and the USA through a variety of targeted methods: postings to electronic message boards, flyers, contacting cancer support groups and lesbian, gay, bisexual, and transgender community centers, and advertising in the local media.

Interested participants called a toll-free number to receive study information and to screen for study eligibility. If interested and eligible, verbal consent was obtained at the time of the phone screen. Participants were emailed a link for the online self-report questionnaire package. The survey was collected using well-known commercial software and was securely housed to ensure confidentiality. Furthermore, no identifying personal information was collected online. Each participant received a unique personal identification number linking to their online data. Participants received \$20 for survey completion.

Measures

Demographic and medical information was gathered through self-report using identical questions from a large-scale PCa outcome study [28]. Pertinent demographics included age, education, ethnicity, nationality, and education. Medical characteristics included PSA level, Gleason score, cancer treatment (i.e., external radiation, watchful waiting, brachytherapy, hormone therapy, and prostatectomy), and comorbidities.

Symptom function was assessed with the Expanded PCa Index Composite [29]. This scale assessed frequency and perceived bother of urinary, bowel, sexual, and hormonal symptoms. These scales have been shown to have strong test–retest reliability ($r = 0.80$) and internal consistency ($\alpha = 0.82$) for each of the scale dimensions and the summary score. For the present study, only the symptom function scales were used, with higher scores reflecting better QOL. This scale was found to have excellent internal consistency ($\alpha = 0.92$).

Self-efficacy for PCa symptom management was assessed with an eleven item measure that asked participants to rate the extent to which they believed they can control different aspects of PCa-related problems (e.g., urine leakage, negative emotions, and thinking about cancer). Participants rated their certainty of controlling these problems on a 5-point Likert scale from ‘not at all’ to ‘completely’. This scale has established good internal consistency ($\alpha = 0.91$) and has been demonstrated to predict QOL [30].

Satisfaction with PCa care was assessed with a single item from the Expanded PCa Index Composite [29]. Participants were asked to respond to the question, ‘Overall, how satisfied are you with the treatment you received for your prostate cancer?’ on a 5-point Likert scale from ‘extremely dissatisfied’ to ‘extremely satisfied’.

Fear of recurrence was assessed using a 5-item measure previously used in a large-scale study of PCa patient outcomes [31]. This measure asked participants to rate beliefs and worries about a possible cancer recurrence (e.g., ‘because cancer is unpredictable, I feel I cannot plan for the future’; ‘I will probably have a relapse (recurrence) within the next 5 years’; ‘my fear of having my cancer getting worse gets in the way of enjoying my life’) on a 5-point Likert scale ranging from ‘strongly agree’ to ‘strongly disagree’. This scale demonstrated good internal consistency in our sample ($\alpha = 0.82$).

Statistical analyses

To examine the extent to which self-efficacy and satisfaction with care mediated the relationship between physical symptom severity and fear of recurrence, a bootstrapping procedure was used. Bootstrapping is a recommended technique to test mediation [32], largely due to the advantages it holds over traditional mediation analyses. The bootstrapping procedure involves repeated random sampling from the data set to obtain multiple estimates of the indirect effects of the predictor variable on the outcome variable. An important benefit of bootstrapping is that it does not assume normality of data distribution, which is more appropriate for smaller samples and affords both greater power and more accurate testing compared with normal theory approaches. For the present study, a multiple mediation design was used to simultaneously test both self-efficacy and satisfaction with care within the model. In total, four model mediation models were conducted, examining the effect of four categories of physical symptoms (i.e., urinary, bowel, sexual, and hormonal) on the outcome variable of FOR through the mediators of self-efficacy and satisfaction with care.

The PROCESS [32] macro was used to obtain bootstrap estimates and bias-corrected CIs. For the current study, we generated 10,000 bootstrap estimates. This means that for each of the four models, 10,000 resamples from the original dataset were created using random sampling with replacement. The point estimate is the mean indirect effect computed over 10,000 samples and the estimated standard error is the standard deviation of the 10,000 estimates. A 95% CI was calculated for the point estimate. This CI is interpreted by examining whether zero is crossed. If zero is not crossed, one can be 95% confident that an indirect effect exists. An indirect effect signifies that there is a relationship between the predictor variable, the proposed mediator, and outcome variable when they are tested as a model. Mediation, in contrast, occurs when the CI again does not cross zero and when there is a significant direct relationship between the predictor and the outcome variables [32]. To obtain the effect size of the indirect effect, kappa-squared (K^2) was used, which is a standardized ratio of the indirect effect to the maximum possible indirect effect. K^2 ranges from 0 to 1, with values of 0.09 = medium effect size and 0.25 = large effect size [33]. Age and education were controlled for in each analysis.

Results

Participant demographics and descriptive information

Table 1 lists the demographic and medical information for the current sample. The sample consisted of 92 men with a mean age of 57.8 years. The majority were Caucasian, resided in the USA, highly educated, and in partnered relationships. Participants were all within 4

years of receiving their cancer diagnosis, with a mean time since diagnosis of 1.91 years (SE = 0.15). At the time of cancer diagnosis, the average PSA level was 8.75 and mean Gleason score was 6.1. More than half of the participants had undergone radical prostatectomy (55.4%).

Table 1 also displays the mean scores and SEs for each of the symptoms and psychosocial outcome variables. For each subscale, the means reflect impaired functioning compared with normative samples [29].

The mean for the sample on the measure of self-efficacy for PCa symptom management was 3.5 (SD = 0.83), reflecting a moderate amount of perceived self-efficacy. A substantial minority of men reported being dissatisfied (11.8%) or being 'unsure' if they were satisfied (34.8%) with their PCa medical care. Lastly, the mean score on the FOR scale was 49.2 (SD = 2.3), reflecting a high amount of FOR on this sample.

Mediation analyses

Bowel function and fear of recurrence—Within Figure 1a, Part A displays the bivariate direct model showing worse bowel function was significant associated with more FOR. Part B shows that self-efficacy (bootstrap estimate = -0.26 , SE = 0.07, CI = $-0.41 - -0.14$; $K^2 = 0.31$, SE = 0.06, CI = 0.19–0.43) and satisfaction with care (bootstrap estimate = -0.07 , SE = 0.04, CI = $-0.19 - -0.02$; $K^2 = 0.10$, SE = 0.04, CI = 0.02–0.19) both significantly mediated the relationship between bowel function and FOR. The total model had an $R^2 = 0.23$, $F = 8.46$, $p < 0.0001$. Therefore, 23% of the variance in FOR was accounted for by all the variables in the model, with a large indirect effect for self-efficacy and a medium indirect effect for satisfaction with care.

Urinary function and fear of recurrence—In Figure 1b, Part A displays the direct model showing worse urinary function predicted greater FOR. Part B shows that bootstrapping estimates had 95% CIs that crossed zero, both for self-efficacy (bootstrap = -0.09 , SE = 0.06, CI = $-0.21 - 0.01$) and satisfaction with care (bootstrap estimate = 0.001, SE = 0.02, CI = $-0.04 - 0.04$). Therefore, neither a mediation effect nor an indirect effect was detected. Despite no significant mediation effects, the total model had an $R^2 = 0.61$, $F = 24.9$, $p < 0.0001$, showing that 61% of the variance in FOR was accounted for by all the variables in the model.

Hormone function and fear of recurrence—Within Figure 2a, Part A displays the direct model showing worse hormone function was related to higher FOR. Part B displays that self-efficacy (bootstrap estimate = -0.20 , SE = 0.06, CI = $-0.33 - -0.11$; $K^2 = 0.30$, SE = 0.05, CI = 0.20–0.41) and satisfaction with care (bootstrap estimate = -0.05 , SE = 0.03, CI = $-0.13 - -0.01$; $K^2 = 0.09$, SE = 0.04, CI = 0.02–0.17) both significantly mediated the relationship between hormone function and FOR. The total model had an $R^2 = 0.58$, $F = 21.17$, $p < 0.0001$, showing that 58% of the variance in FOR was accounted for by all the variables in the model, with a large indirect effect for self-efficacy and a medium indirect effect for satisfaction with care.

Sexual function and fear of recurrence—Within Figure 2b, Part A displays the direct model showing that worse sexual function was related to greater FOR. Part B shows that self-efficacy (bootstrap estimate = -0.31 , SE = 0.07 , CI = $-0.46 - -0.20$; $K^2 = 0.40$, SE = 0.06 , CI = $0.28-0.51$) and satisfaction with care (bootstrap estimate = -0.06 , SE = 0.03 , CI = $-0.13 - -0.02$; $K^2 = 0.11$, SE = 0.04 , CI = $0.04-0.20$) both significantly mediated the relationship between sexual function and FOR. The total model had an $R^2 = 0.54$, $F = 21.17$, $p < 0.0001$, showing 54% of the variance in FOR was accounted for by all the variables in the model, with a large indirect effect for self-efficacy and a medium indirect effect for satisfaction with care.

Conclusion

Three main findings emerged from these data. First, physical symptoms were related to FOR, such that worse bowel function, hormone function, and sexual function were significantly associated with greater FOR. Second, the relationship between physical symptoms and FOR was mediated by self-efficacy, which demonstrated a large indirect effect size. Specifically, even though one may be experiencing bowel, sexual, and hormonal dysfunction, feeling more self-efficacious to manage PCa-related symptoms appears to explain, at least in part, the effect that these physical symptoms have on FOR among gay men. Third, greater satisfaction with care mediated the impact that physical symptoms have on FOR, showing an effect size in the medium range. Overall, our models accounted for a medium to large amount of variance in FOR, ranging from 23% (bowel functioning model) to 54–61% (sexual, hormonal, and urinary functioning models).

The finding that worse physical symptoms were associated with greater FOR is consistent with Leventhal's self-regulation model, which proposes that each individual has an illness representation that is activated by identifying somatic experiences [11]. The perception of physical symptoms may be wrongfully interpreted as harmful and appears to be associated with greater FOR. Moreover, somatic symptoms may function as reminders of cancer. Therefore, our data support prior research suggesting subjective appraisals of physical symptoms are associated with heightened FOR. Although physical symptoms have been shown to predict FOR in PCa, there is scant research investigating this relationship among gay men, which is important given that gay men with PCa have been shown to report worse physical symptoms, less satisfaction with care, and greater FOR compared with heterosexual norms [6].

Interestingly, we did not find a significant relationship between urinary function and FOR. To understand this lack of a relationship, we examined the prevalence of urinary dysfunction in our sample and found only 4.3% reported that urinary incontinence was a 'big problem' and only 8.2% reported that urinary incontinence interfered with their sexual activity. This is consistent with previous research showing that PCa survivors reported urinary incontinence to be only a small problem [34]. It is also possible that urinary function was not sufficiently high in our sample to produce a significant association. Additionally, urinary incontinence diminishes with time, and the majority of patients eventually recover continence following radical prostatectomy and radiotherapy within 12 months [35]. The mean time since diagnosis for the current sample was 1.91 years, and a substantial majority were treated with

RP (55.4%) or radiotherapy (27.2%). It is therefore also possible that the lack of an association reflects that urinary incontinence had resolved for the majority of the sample.

Our study confirmed two important potential mechanisms that link PCa-related physical symptoms and FOR. Health related self-efficacy, or the perceived ability to cope with PCa symptoms is one such avenue that may be important for understanding FOR in gay men. Other research has confirmed the importance of cancer-related self-efficacy for psychosocial outcomes. For example, in a lung cancer population wherein treatment results in many painful physical symptoms, patients low in self-efficacy reported significantly higher levels of symptoms, depression, and anxiety, and significantly worse physical and functional well being [36]. These findings are consistent with earlier findings in the PCa population demonstrating that higher rates of self-efficacy are associated with better QOL related to physical symptoms that result from treatment [22]. Another important aspect of disease-related self-efficacy is the sense of control and involvement in the treatment, and active involvement of patients in medical encounters has been associated with several desirable outcomes, including greater satisfaction with care and positive treatment outcomes [37]. This is of particular relevance to gay men with PCa as they have been shown to report less treatment satisfaction than heterosexual men [6].

Indeed, the second mechanism linking PCa-related physical symptoms and FOR is cancer treatment satisfaction. It is important to note that the percentage of men in this sample who reported that they were 'satisfied' with their medical care (64.7%) is comparatively lower than that found in another study of radical prostatectomy patients (84%) [38]. Worse treatment outcomes such as more severe physical symptoms and more dissatisfaction with ones' PCa care are not surprising considering the evidence that gay men are more likely to face discrimination from a medical community of primarily heterosexual urologists and oncologists [10], who may practice in culturally insensitive ways. For instance, many health care professionals fail to ask about sexual orientation, which is of critical clinical importance as characteristics of sexual activity should inform PCa treatment decision-making and management of treatment effects [10]. Additionally, practice intake forms may ask about a spouse or make other heterosexist assumptions. As such, partnered gay men who are not comfortable being out lack the support that inclusion of their partner in medical discussions would provide. Furthermore, partners are excluded from participating in these important discussions.

Limitations of the current research include a small, self-selected sample, a cross-sectional design, and the use of self-report. Our sample was comprised of self-identified, highly-educated, and insured Caucasian men comfortable being 'out' as gay. Given that 'outness' and higher education have both been shown to predict better physical and mental health outcomes [8], our data may underestimate the problems faced by a more representative sample of gay men. Additionally, our measure of FOR was selected in order to allow for comparisons with large cohort studies of heterosexual men but provided a limited assessment. Since conducting this study, more comprehensive measures of FOR have been developed, such as the FOR inventory [39] and should be considered for future use. Despite these limitations, this study demonstrated explanatory variables for the relationship between physical symptoms and FOR. These findings underscore the importance of considering the

unique psychosocial factors related to adjustment to cancer for gay men who have been diagnosed with PCa. Our findings reveal that both self-efficacy to manage one's symptoms and satisfaction with one's PCa care are avenues through which the common physical symptoms of bowel function, sexual function, and hormone function are associated with higher FOR in this population. This is valuable clinical information to help guide the survivorship care of this population as both these mediators are amenable to intervention. First, a possible avenue through which to address satisfaction with care is through provider education programs geared toward increasing sensitivity to the particular issues and concerns of gay men with PCa [40]. It would also be important to reduce heterosexist aspects of the clinical environment such as only asking about heterosexual sex or one's wife (versus partner). For example, these issues include inquiring about sexual orientation as well as understanding the differential impact that treatments may have on gay men's sexuality and including that information in the discussion about treatment planning and options. Second, interventions aimed at bolstering self-efficacy to manage symptoms may help to reduce distress in this population. Indeed, extant research in educational programs for chronic illness suggests that self-efficacy is modifiable by means of self-management interventions [37].

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Figure 1.

(A) Multiple mediation model examining bowel function as predictor variable. (A) the direct model for bowel function and fear of recurrence. (B) the mediation model with self-efficacy and satisfaction with care as mediators between bowel function and fear of recurrence.

Bootstrap coefficients are shown with standard error in parentheses. $*p < 0.05$, $**p < 0.01$, $***p < 0.001$. (B) Multiple mediation model examining urinary function as predictor variable. (A) The direct model for urinary function and fear of recurrence. (B) The mediation model with self-efficacy and satisfaction with care as mediators between urinary function and fear of recurrence. Bootstrap coefficients are shown with standard error in parentheses. $*p < 0.05$, $**p < 0.01$, $***p < 0.001$

Figure 2.

(A) Multiple mediation model examining hormone function as predictor variable. (A) The direct model for hormone function and fear of recurrence. (B) The mediation model with self-efficacy and satisfaction with care as mediators between hormone function and fear of recurrence. Bootstrap coefficients are shown with standard error in parentheses. $*p < 0.05$, $**p < 0.01$, $***p < 0.001$. (B) Multiple mediation model examining sexual function as predictor variable. (A) The direct model for sexual function and fear of recurrence. (B) The mediation model with self-efficacy and satisfaction with care as mediators between sexual function and fear of recurrence. Bootstrap coefficients are shown with standard error in parentheses. $*p < 0.05$, $**p < 0.01$, $***p < 0.001$

Table 1

Participant characteristics and key variables

	N	%
<i>Nationality</i>		
USA	77	83.7
Canada	15	16.3
<i>Relationship status</i>		
Married/living with partner	42	45.7
Primary partner	16	17.4
No primary partner	21	22.8
Dating one/more people	6	6.5
Separated/divorced	2	2.2
Widowed	3	3.3
<i>Education</i>		
<High school	1	1.1
High school degree	4	4.3
Some college	20	21.7
College/university	27	29.3
Graduate school	37	40.2
<i>Ethnicity</i>		
African American	5	5.4
Asian	1	1.1
Caucasian	84	91.3
Other	2	2.2
<i>Treatment</i>		
Prostatectomy	51	55.4
External radiation	25	27.2
Brachytherapy	7	7.6
Hormonal therapy	23	25.0
No treatment	8	8.7
Other treatment	6	6.5
<i>Mean (SE)</i>		
Age (years)	89	57.8 (.97)
Years since diagnosis		1.91 (0.15)
<i>Clinical characteristics at diagnosis</i>		
PSA level	75	8.75 (1.11)
Gleason score	61	6.1 (0.19)
T-Stage	N	%
Low (T1c–T2a)	39	70.9
Intermediate (T2b–T2c)	6	10.9
High (T3–T4)	10	18.2
<i>Changes in sexual behavior since PCa treatment</i>		

	N	%
No change	7	7.6
Changed a little	13	14.1
Changed a lot	51	55.4
No sexual activity	16	17.4
<i>Frequency of sexual activity after PCa treatment</i>		
No change	9	9.8
Changed a little	22	23.9
Changed a lot	34	37.0
No sexual activity	21	22.8
<i>Change in frequency of sexual activity</i>		
Decreased a lot	37	40.2
Decreased a little	18	19.6
Increased a little	0	0.0
Increased a lot	1	1.1
<i>Key variables</i>		
	Mean (SE)	
EPIC urinary function	90	67.2 (0.29)
EPIC sexual function	89	38.7 (0.02)
EPIC bowel function	90	77.6 (0.23)
EPIC hormonal function	85	73.5 (0.26)
EPIC satisfaction with care	89	69.64 (2.87)
	Mean (SD)	
Self efficacy to manage prostate cancer symptoms	90	35.3 (0.83)
Fear of recurrence	91	49.2 (2.3)