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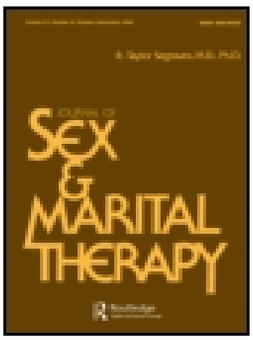
Published in:
Journal of Sex & Marital Therapy

DOI:
10.1080/0092623X.2018.1549636

Publication date:
2019

Document Version
Publisher's PDF, also known as Version of record



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Journal of Sex & Marital Therapy

ISSN: 0092-623X (Print) 1521-0715 (Online) Journal homepage: https://www.tandfonline.com/loi/usmt20

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To cite this article: Lorena A. Grondhuis Palacios, Marjolein E.M. den Ouden, Brenda L. den Oudsten, Hein Putter, Rob C.M. Pelger & Henk W. Elzevier (2019): Treatment-Related Sexual Side Effects From the Perspective of Partners of Men With Prostate Cancer, Journal of Sex & Marital Therapy, DOI: 10.1080/0092623X.2018.1549636

To link to this article: https://doi.org/10.1080/0092623X.2018.1549636

Published online: 23 Apr 2019.

JOURNAL OF SEX & MARITAL THERAPY
https://doi.org/10.1080/0092623X.2018.1549636

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Treatment-Related Sexual Side Effects From the Perspective of Partners of Men With Prostate Cancer

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ABSTRACT

A cross-sectional survey was performed among partners and men who received treatment for prostate cancer to investigate whether demographic and clinical characteristics are associated with the extent of how difficult partners found it dealing with sexual side effects and the degree of having experienced sexual problems after treatment. Moreover, an aim was to determine whether sexual side effects have an impact on the relationship. A total of 171 partners were included. In all, 104 men (70.7%) experienced an increase in erectile complaints after treatment. Almost half of partners of men with an increase in erectile complaints (63.6%, $n = 63$) found it difficult to deal with sexual side effects and 63.5% ($n = 66$) experienced sexual problems. Partners with lower education levels experienced fewer sexual problems than partners with higher education levels ($p < .001$). Furthermore, no significant associations were found on demographic characteristics, number of comorbidities, clinical characteristics (prostate-specific antigen level; tumor, node, and metastasis staging; Gleason grading), and type of treatment. The majority of men (58.4%, $n = 59$) and partners (62.5%, $n = 65$) indicated to not have experienced the impact of sexual side effects on their relationship.

Introduction

Due to increased prostate-specific antigen (PSA) screening, more men receive diagnoses of low-risk prostate cancer (PCa; van den Bergh, Loeb, & Roobol, 2015). The most commonly reported side effects of PCa treatment are erectile dysfunction (ED), anejaculation, and changes in sexual performance (Davis et al., 2014; Elliott, Latini, Walker, Wassersug, & Robinson, 2010; Frey et al., 2017). Due to treatment-related sexual side effects, frequency of sexual activity may decline after treatment (Buergy et al., 2018; Walker, Santos-Iglesias, & Robinson, 2018). These secondary effects can negatively affect a man's self-esteem and contribute to partial loss of masculine identity, leading to possible impairment of intimacy with their partners (Bokhour, Clark, Inui, Silliman, & Talcott, 2001; Zaider, Manne, Nelson, Mulhall, & Kissane, 2012).

Unfortunately, partners are rarely involved in urology consultations when sexual functioning is discussed (Forbat, White, Marshall-Lucette, & Kelly, 2012). Literature shows that partners of men

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who have undergone treatment for PCa experience unmet sexual and support needs (Levesque et al., 2015; Wittmann et al., 2014; Wootten, Abbott, Farrell, Austin, & Klein, 2014). Treatment-related side effects can cause sexual problems and can have a negative influence on the relationship; accordingly, PCa has been described as a "relationship disease" (Couper et al., 2006; Tanner, Galbraith, & Hays, 2011; Zhou et al., 2011).

Sanda et al. (2008) performed a study wherein partners could indicate the extent to which sexual function had become a problem after treatment. Forty-four percent of the partners of men who had undergone a prostatectomy reported moderate to big sexual problems. As for clinical characteristics, older age and high PSA levels at diagnosis have been identified as factors associated with a decrease in sexual function among men (Lemanska, Dearnaley, Jena, Sydes, & Faithfull, 2018; Sanda et al., 2008). However, little research has been conducted among partners concerning clinical factors associated with the extent of sexual health issues.

The aim of this cross-sectional study is to evaluate the extent to which partners found it difficult to deal with treatment-related sexual side effects and the extent to which partners experienced sexual problems after treatment. Moreover, a goal was to investigate associated factors such as demographic characteristics, number of comorbidities, clinical factors (e.g., PSA level; tumor, node, and metastasis [TNM] staging; Gleason grading), and type of treatment; the extent to which partners found it difficult to deal with treatment-related sexual side effects; and the extent to which partners experienced sexual problems after treatment. In addition, this study aimed to analyze whether the patients' erectile complaints and decline of sexual activity after treatment correspond to how difficult partners found it to deal with sexual side effects and the extent of experienced sexual problems. Furthermore, we sought to investigate whether sexual side effects have a positive or negative impact on the relationship between men treated for PCa and their partners.

Material and methods

Procedure

Recruitment of partners took place through men who received treatment for PCa and were registered at the oncology registration of Leiden University Medical Center. Based on the hospital's declaration code for PCa, a list was obtained with men with a diagnosis of or treated for PCa between 2013 and 2015. Hence, the list also comprised men with a diagnosis of or treated for PCa before 2013 who had received an (additional) treatment between 2013 and 2015. Patients who received treatment (after active surveillance) with laparoscopic radical prostatectomy (LRP), brachytherapy, intensity-modulated radiotherapy (IMRT), and/or hormonal therapy (HT) were included. Patients under active surveillance were excluded. Additional patient data obtained from the oncology registration included age, PSA level, TNM staging, Gleason grading, and type of treatment.

Separate information letters and consent forms were sent to 590 eligible men and their partners which explained objectives and content of the study. With affirmative consent, questionnaires were sent. Questionnaires from men and their partners were correspondingly encoded in order to be able to afterwards pair the partner's questionnaire to the patient's questionnaire and his clinical characteristics. To warrant privacy of both men and partners, the questionnaires were sent in separate envelopes, both provided with a postpaid envelope to return the completed questionnaire. Men and partners unwilling to participate, could indicate unwillingness on the consent form, whereas a question was added to obtain reason for nonparticipation.

Questionnaires

Both questionnaires were designed by the authors, based on study aim, review of literature, and previously designed questionnaires of published studies by the research group. The questionnaire

completed by patients assessed items such as length of relationship in years and included two 3-point Likert scales measuring the extent of ED before and after treatment (ranging from "no erectile complaints" to "major erectile complaints"), two questions assessing the presence of sexual activity before and after treatment, and a question to determine the impact of sexual side effects on the relationship ("no impact," "negative impact," and "positive impact"). The questionnaire completed by partners comprised demographic characteristics, comorbidities, a 4-point Likert scale inquiring difficulty degree to deal with treatment-related sexual side effects (ranging from "no difficulties" to "very difficult"), a 3-point Likert scale concerning the extent that partners experienced sexual problems after treatment (ranging from "no problems" to "severe problems") and, equally to the patient's questionnaire, the question concerning impact of sexual side effects on the relationship. Of patients who did not engage in the study but their partner did, length of relationship, erectile complaints, sexual activity, and clinical characteristics remained unknown. Due to the small number of homosexual individuals who responded to this study and in order to maintain group uniformity, we decided to solely analyze heterosexual partners.

Statistical analysis

Demographic characteristics, comorbidities, clinical characteristics (PSA level, TNM staging, Gleason grading), type of treatment, degree of erectile complaints and sexual activity, and variables concerning the extent of how difficult partners found it to deal with treatment-related sexual side effects and experienced sexual problems were analyzed using descriptive statistics. Numerical variables were described with mean (*SD*) or median (min - max) and categorical variables with number (%). Bivariate associations between level of "finding it difficult to deal with treatment-related sexual side effects" or "experiencing sexual problems" and (1) demographic characteristics, (2) number of comorbidities, (3) clinical characteristics, and (4) type of treatment were analyzed in partners of men with an increase in erectile complaints after treatment using Fisher's exact test, one-way analysis of variance test, and Kruskal–Wallis test. Associations between two ordinal variables were analyzed using linear-by-linear association. Analyses were performed with SPSS Statistics version 23.0. Two-sided p values $< .05$ were considered statistically significant.

Ethics

Ethical approval was granted by the Institutional Review Board at Leiden University Medical Center.

Results

Out of 590 information letters and consent forms sent, a total of 353 partners (59.8%) sent their consent forms back; 190 partners (53.8%) provided an affirmative consent and 137 partners (38.8%) did not agree to participate. Most named reasons were "not interested" (34.5%), "questions are too personal" (18.5%), and "improvement in the field of sexuality is not important" (14.9%). Twenty-six patients (7.4%) sent consent forms of the partner back disclosing that they did not have a partner (anymore). In total, 174 partners returned a completed questionnaire, including 12 partners for whom the patient did not participate in the study. Eleven questionnaires were from partners of men under active surveillance. Three questionnaires were from male partners. Hence, 160 questionnaires were analyzed.

Demographic characteristics of partners

The mean age of partners was 65.4 years ($SD = 7.3$) and almost half of them had lower vocational education level (47.5%, $n = 76$). Further details on demographic characteristics are described in Table 1.

Comorbidities of partners

Hypertension (31.3%), hypercholesterolemia (25.6%), and musculoskeletal disorders (24.4%) were the comorbidities reported most often. Other comorbidities mentioned were adiposity (11.9%), chronic respiratory diseases (9.4%), and diabetes mellitus (6.9%). Twenty-eight percent ($n = 45$) did not have any comorbidities. The median number of comorbidities was 1.0 per partner (range = 0–6).

Table 1. Demographic characteristics and clinical variables.

	n (%)
Age of partners (years)	
Mean = 65.4 (±7.3)	160 (100.0)
Age of men (years)	
Mean = 69.0 (±6.6)	148 (92.5)
Duration of relationship (years)	
Median = 45.0 (3–60)	
Occupation of partners	
Employed	43 (26.9)
Unemployed	13 (8.1)
Retired, employed	17 (10.6)
Retired, unemployed	87 (54.4)
Education of partners	
No qualification/elementary school	10 (6.3)
Lower vocational education	76 (47.5)
Intermediate vocational education	29 (18.1)
Higher secondary education	15 (9.4)
Higher education	30 (18.8)
Number of comorbidities of partners	
0	44 (27.5)
1	46 (28.8)
2	43 (26.9)
≥ 3	27 (16.9)
Prostate-specific antigen level (μg/L)	
Median = 11.0 (2–838)	
Tumor, nodes, and metastasis (TNM) staging	
T–Local stage	135 (84.4)
N–Regional stage	8 (5.0)
M–Distant stage	5 (3.1)
TNM staging unknown[a]	12 (7.5)
Gleason grading	
6	59 (36.9)
7	59 (36.9)
8	15 (9.4)
9	12 (7.4)
Gleason grading unknown[b]	15 (9.4)
Type of treatment	
Laparoscopic radical prostatectomy (LRP)[b]	41 (27.7)
Brachytherapy (BT)	18 (12.2)
Intensity-modulated radiotherapy (IMRT)	35 (23.6)
IMRT combined with hormonal therapy (HT)[d]	43 (29.1)
HT	1 (7.4)

Note.
[a]No TNM staging available due to nonparticipation ($n = 12$).
[b]No Gleason grading available ($n = 3$); no Gleason grading available due to nonparticipation ($n = 12$).
[c]Including LRP combined with IMRT ($n = 5$) and LRP combined with HT ($n = 1$).
[d]Including BT combined with HT ($n = 8$) and IMRT combined with LRP and HT ($n = 4$).

Clinical characteristics of patients

Out of 253 completed questionnaires returned by men with PCa, a total of 148 questionnaires could be paired to participating partners. The mean age of men was 69.0 years ($SD = 6.6$), and the majority had localized PCa (84.4%, $n = 135$). Most men received treatment with a combination of IMRT and HT (29.1%, $n = 43$), followed by LRP (27.7%, $n = 41$) and IMRT (23.6%, $n = 35$). Further details on clinical characteristics are shown in Table 1.

Erectile complaints and sexual activity

Before treatment, 63.5% of men ($n = 94$) had no erectile complaints, 32.4% ($n = 48$) had minor erectile complaints, and 4.1% ($n = 6$) had major erectile complaints. After treatment, 15.6% ($n = 23$) had no erectile complaints, 29.3% ($n = 43$) had minor erectile complaints, and 55.1% of men ($n = 81$) had major erectile complaints. A total of 104 men (70.7%) experienced an increase in their erectile complaints after PCa treatment: 26.0% ($n = 27$) went from no erectile complaints to minor erectile complaints, 46.2% ($n = 48$) from no erectile complaints to major erectile complaints, and 27.9% ($n = 29$) went from minor erectile complaints to major erectile complaints. Prior to treatment, the majority was sexually active (96.6%, $n = 143$). After treatment, half of men were not sexually active anymore (51.0%, $n = 75$)

Partners' perspective on sexual side effects and experienced sexual problems

Out of all partners of men with an increase in erectile complaints, around one-third (36.4%, $n = 36$) had no difficulties dealing with sexual side effects, while almost half of them (44.4%, $n = 44$) found it slightly difficult to deal with sexual side effects and 19.2% ($n = 19$) found it moderate to very difficult. Thirty-seven percent of the partners ($n = 38$) reported no sexual problems after treatment, whereas more than half of them (51.0%, $n = 53$) indicated moderate sexual problems and 12.5% ($n = 13$) severe sexual problems.

Out of the 36 partners who did not find it difficult to deal with sexual side effects, 22.2% ($n = 8$) reported to have experienced moderate sexual problems after treatment. Eleven percent of the 44 partners ($n = 5$) who indicated finding it slightly difficult to deal with sexual side effects reported severe sexual problems.

Factors associated with perspective on sexual side effects and sexual problems

No significant associations were identified between partners who found it difficult to deal with sexual side effects and demographic characteristics, number of comorbidities, clinical characteristics (PSA level, TNM staging, Gleason grading), or type of treatment (Table 2).

Partners with a lower education level experienced fewer sexual problems after treatment than partners with a higher education level ($p < .001$). Furthermore, no significant associations were found between having experienced sexual problems and age of partner ($p = .079$), age of patient ($p = .229$), length of relationship ($p = .132$), partner's occupation ($p = .720$), partner's number of comorbidities ($p = .458$), PSA level ($p = .343$), TNM staging ($p = .664$), Gleason grading ($p = .196$), or type of treatment ($p = .133$). A high percentage of having experienced moderate to severe sexual problems was found among partners of men receiving LRP and IMRT (respectively, 72.5%, $n = 29$ and 80.0%, $n = 16$). Partners of men receiving IMRT combined with HT were more or less divided in halves: 48.5% ($n = 16$) experienced sexual problems and 51.5% ($n = 17$) experienced no sexual problems (Figure 1).

Out of the 43 men who indicated no increase in erectile complaints after treatment, 30.6% of their partners ($n = 11$) found it difficult to deal with sexual side effects and 25.6% of partners

Table 2. Associations between dealing with sexual side effects and demographic and clinical characteristics.

	No difficulties *n* (%)	Slightly difficult *n* (%)	Moderately difficult *n* (%)	Very difficult *n* (%)	*p* value
Age of partners (years)					.525[c]
	Mean = 65.8 (±7.6)	Mean = 64.4 (±6.3)	Mean = 64.7 (±8.9)	Mean = 60.5 (±10.1)	
Age of men (years)					.711[c]
	Mean = 69.1 (±7.2)	Mean = 67.4 (±6.2)	Mean = 67.7 (±7.9)	Mean = 69.3 (±5.3)	
Duration of relationship (years)					.407[b]
	Median = 45.0 (5–60)	Median = 44.5 (3–55)	Median = 41.0 (5–55)	Median = 27.5 (7–49)	
Occupation of partners					.974[a]
Employed	10 (32.3)	15 (48.4)	4 (12.9)	2 (6.5)	
Unemployed	3 (42.9)	2 (28.6)	2 (28.6)	—	
Retired, employed	4 (40.0)	5 (50.0)	1 (10.0)	—	
Retired, unemployed	19 (37.3)	22 (43.1)	8 (15.7)	2 (3.9)	
Education of partners					.057[d]
No qualification/elementary school	1 (20.0)	3 (60.0)	1 (20.0)	—	
Lower vocational education	24 (49.0)	19 (38.8)	5 (10.2)	1 (2.0)	
Intermediate vocational education	4 (20.0)	10 (50.0)	6 (30.0)	—	
Higher secondary education	2 (50.0)	5 (62.5)	–	1 (12.5)	
Higher education	5 (29.4)	7 (41.2)	3 (17.6)	2 (11.8)	
Number of comorbidities of partners					.253[b]
	Median 1.0 (0–4)	Median = 1.5 (0–4)	Median = 2.0 (0–4)	Median = 0.5 (0–3)	

Level of prostate-specific antigen (μg/L)					.349[b]
	Median = 13.0 (5–139)	Median = 10.5 (6–838)	Median = 11.0 (2–60)	Median = 28.0 (10 – 49)	
Tumor, nodes, and metastasis (TNM) staging					.146[d]
T–Local stage	30 (33.3)	42 (46.2)	15 (16.5)	4 (4.4)	
N–Regional stage	4 (80.0)	1 (20.0)	—	—	
M–Distant stage	2 (66.7)	1 (33.3)	—	—	
Gleason grading					.229[d]
G6	9 (28.1)	18 (56.3)	3 (9.4)	2 (6.3)	
G7	15 (32.6)	19 (41.3)	10 (21.7)	2 (4.3)	
G8	7 (70.0)	2 (20.0)	1 (10.0)	—	
G9	3 (37.5)	4 (50.0)	1 (12.5)	—	
Type of treatment					.256[a]
Laparoscopic radical prostatectomy	12 (30.8)	18 (46.2)	8 (20.5)	1 (2.6)	
Brachytherapy	1 (25.0)	2 (50.0)	—	1 (25.0)	
Intensity-modulated radiotherapy (IMRT)	7 (38.9)	11 (61.1)	—	—	
IMRT combined with hormonal therapy (HT)	12 (37.5)	12 (37.5)	6 (18.8)	2 (6.3)	
HT	4 (66.7)	1 (16.7)	1 (16.7)	—	

Note.
[a]Fisher's exact test.
[b]Kruskal–Wallis test.
[c]One-way analysis of variance test.
[d]Linear-by-linear association.

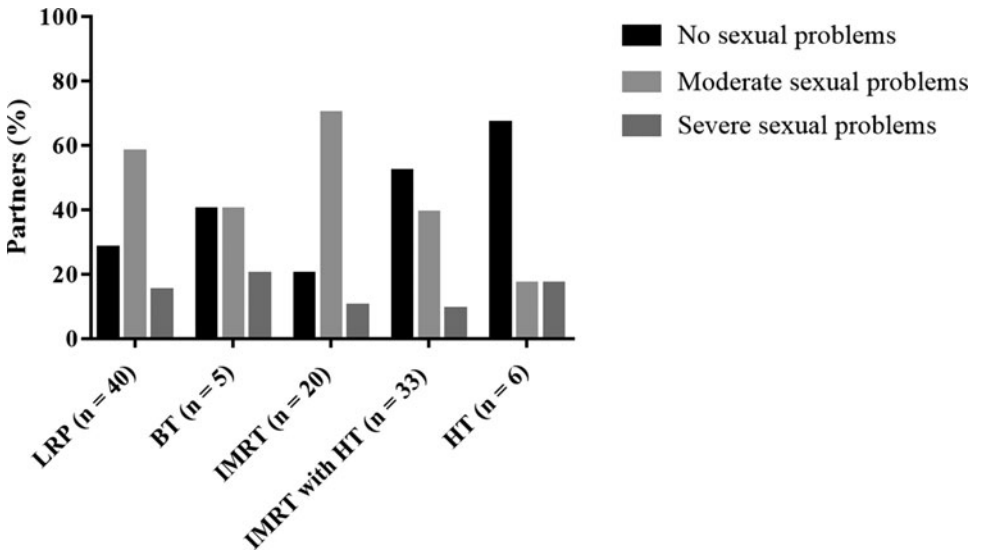

Figure 1. Absence and presence of sexual problems per type of treatment in partners of men with increased erectile complaints after treatment.

($n = 11$) experienced sexual problems. Twenty-five men already had erectile complaints prior to treatment and reported no increase in erectile complaints after treatment. Almost half of their partners (45.5%, $n = 10$) found it difficult to deal with sexual side effects, and 10 of their partners (40.0%) experienced sexual problems after treatment.

Out of all men who did not pursue sexual activity after treatment, 28.0% ($n = 21$) indicated no increase in erectile complaints after treatment. Twenty-five percent of their partners ($n = 5$) found it difficult to deal with sexual side effects and 19.0% ($n = 4$) experienced sexual problems; within these groups, three partners both had difficulties dealing with sexual side effects and experienced sexual problems.

Impact of sexual side effects on relationship

Sixty-three percent of partners ($n = 65$) and 58.4% of men ($n = 59$) experienced no impact of sexual side effects on their relationship. One in three partners (33.7%, $n = 35$) stated to have encountered negative impact, whereas one-third of men (33.7%, $n = 34$) gave the same answer. Positive impact was experienced by 3.9% of the partners ($n = 4$) and by 8.0% of men ($n = 8$).

Discussion

This study showed that more than half of female partners of men with a reported increase in erectile complaints after PCa treatment found it difficult to deal with treatment-related sexual side effects and that partners experienced sexual problems after treatment. The majority of men in this study reported an increase in their erectile complaints after treatment together with discontinuation of their sexual activity. Wittmann et al. (2015) studied couples in their recovery as to altered sexual health after prostatectomy. Postoperatively, 95% of men experienced ED leading to loss of sexual desire and with only half of them experiencing satisfactory orgasms. Partners of these men reported disappointment regarding altered sexuality after treatment. It is indisputable that PCa treatment has important consequences for the sexual health of both patient and partner. When it comes to PCa patients, several studies have investigated possibilities of sexual rehabilitation, including penile rehabilitation, in order to improve sexual health after treatment (Liu,

Lopez, Chen, & Wang, 2017; Salonia et al., 2017a, 2017b). However, partners are generally neglected when it comes to sexual recovery after treatment (Galbraith, Fink, & Wilkins, 2011; Kelly, Forbat, Marshall-Lucette, & White, 2015; Street et al., 2010). Partners feel excluded during follow-up consultations, although consequences of sexual side effects also apply to them (Kelly et al., 2015). Partners have indicated that health care professionals barely provide them attention, regardless of them feeling affected by the diagnosis and treatment outcomes.

A few partners of men with an increase in erectile complaints had no difficulties dealing with sexual side effects, yet reported having experienced sexual problems. Men tend to focus more on the physical aspect of impaired sexuality, e.g., ED as a result of PCa treatment. Partners, meanwhile, tend to focus more on other aspects of sexuality, such as relational issues (Nelson, Emanu, & Avildsen, 2015). The World Health Organization defines sexuality as "… a central aspect of being human throughout life which encompasses sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy and reproduction" (World Health Organization, 2006). Thus, sexuality does not only encompass sex, but also eroticism, pleasure and intimacy. It is therefore conceivable that partners may not be bothered by erectile complaints, yet experience problems in the area of pleasure and intimacy that may lead to sexual problems.

Partners with a lower education level experienced fewer problems with sexuality after treatment than partners with higher education levels. Zhang, Fan, and Yip (2015) studied factors associated with sexual dysfunction among women in Hong Kong. The authors found that women with high education levels reported lack of interest in sex less frequently compared to women with low education levels. So it could be concluded that women with high education levels have a higher libido than women with lower education levels. It can partially explain the reason in this study that partners with a lower educational level reported fewer sexual problems. It could also be the case that partners with lower education levels find sexual problems less important. A study performed among cancer survivors and their relatives determined higher levels of anxiety in people with low socioeconomic levels (Alacacioglu, Tarhan, Alacacioglu, Dirican, & Yilmaz, 2013). If the focus among partners who have lower education levels is centralized on the disease and the outcome of its treatment, it is feasible that they may less likely worry about the consequences of the treatment, let alone sexual problems.

Furthermore, a great number of partners of men who received surgical treatment or with IMRT reported sexual problems after treatment. Consistent with one of the outcomes in a study performed by Ramsey et al. (2013), wherein partners of men undergoing radical prostatectomy reported worsening of their sexual relationship significantly more often compared to partners of men who received nonsurgical treatment. On the contrary, partners of men undergoing HT reported to have experienced fewer sexual problems. Considering that aging and decline of sexual activity are associated, partners of men undergoing HT, who are in most cases older and are more likely to have a higher rate of comorbidities, may not benefit from sexual recovery after treatment when compared to younger partners (Lee, Nazroo, O'Connor, Blake, & Pendleton, 2016). Furthermore, older women are less likely to be sexually active than older men, partly by means of their peri- or postmenopause (Lee et al., 2016; Thomas, Hamm, Hess, & Thurston, 2018).

In this study, several discrepancies were found between statements made by partners and men as to sexual side effects. Notwithstanding that men who indicated no increase in erectile complaints, their partners still found it difficult to deal with sexual side effects and experienced sexual problems. It is feasible to believe that men may underestimate their erectile function and that partners attenuate the problems that ED as a consequence of treatment may have caused (Wittmann et al., 2014). Although women indicated not being in need of sexual supports, they do encounter issues around the frustrations of their partner; men are confronted with treatment-related ED and its consequences of feeling less masculine (Grondhuis Palacios et al., 2018). Partners may feel like they do not want to put any pressure on sexuality and could therefore experience more sexual problems than actually having difficulties dealing with sexual side effects.

Also, there were men who were still able to perform sexually yet did not pursue sexual activity after treatment, whereas a few partners had problems dealing with this matter. Couples may face issues as to communicating with each other about changes in their sexual relationship, which may lead to marital dissatisfaction and a further decrease of the intimate relationship (Badr & Taylor, 2009).

Although a great part of the couples in this study experienced no impact of sexual side effects on their relationship, still one-third of them encountered a negative impact. Health care providers should be aware of the fact that providing sexual health care consists of not only carrying out treatments for ED, but also to prevent relational issues caused by these side effects. It is of the utmost importance not only to focus on regaining erectile function, but also to aim at enhancing intimacy and the sexual relationship between men and their partners, whereas the sexual health of the partner should not be neglected. A medical professional may not always be qualified to provide this kind of health care, due to lack of time, knowledge, or competence (Krouwel et al., 2015; Krouwel et al., 2016). Guidance in intimacy and relational matters may be more adequate when provided by a sexologist or a psychologist specialized in sexology.

One of the strengths of this study is that partners could be paired to the patients in order to investigate whether clinical characteristics were associated with the extent of how difficult partners found it to deal with treatment-related sexual side effects and how many problems they experienced with sexuality. Moreover, privacy of both patient and partner was guaranteed, considering that the questionnaires were sent separately.

Limitations included the fact that certain data of patients remained unknown, such as length of relationship in years and clinical characteristics, due to lack of informed consent. No validated questionnaires were used. The retrospective aspect of this cross-sectional design may have led to imprecise answers, since men had to report degree of erectile complaints and sexual activity in hindsight. The response rate of partners could not be established since it was beyond the bounds of possibility to determine the exact number of men in a relationship beforehand. Since it concerned a questionnaire with delicate questions, the survey could have led to sociably desired answers, despite that anonymity was ensured. We excluded homosexual partners, since the number of homosexual participants was limited. It is likely that differences in sexual orientation may lead to different responses. Hence, this matter should be investigated as a separate subject in future research.

Conclusions

More than half of the partners of men with an increase in erectile complaints after PCa treatment found it difficult to deal with treatment-related sexual side effects and experienced sexual problems. Partners with a lower educational level experienced fewer sexual problems, whereas partners of men who received surgical treatment or IMRT experienced more sexual problems. Discrepancies between men and partners concerning treatment-related sexual side effects were identified: although men reported no increase in erectile complaints, their partners found it difficult to deal with sexual side effects and experienced sexual problems. Overall, the majority of men and partners indicated not having experienced an impact of sexual side effects on their relationship.

Conflicts of interest

The authors report no conflicts of interest.

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