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Sexual health care in prostate cancer for men and their partners

Grondhuis Palacios, L.A.

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Part IV

Sexual health care
in prostate cancer:
Healthcare providers

Chapter 6



Omissions in urology residency training regarding sexual dysfunction subsequent to prostate cancer treatment: identifying a need

E.M. Krouwel¹, L.A. Grondhuis Palacios¹, H. Putter²,
R.C.M. Pelger¹, G.J. Kloens³, H.W. Elzevier¹

1. Department of Urology, Leiden University Medical Center

2. Department of Medical Statistics, Leiden University Medical Center

3. Department of Psychology, Education & Child Studies, Erasmus University Rotterdam

4. Department of Medical Decision Making, Leiden University Medical Center

Introduction

Prostate cancer is the most commonly occurring male urological cancer. In 2012, about 1.1 million cases were diagnosed worldwide (1). Accordingly, prostate cancer's diagnostics, treatment, and follow-up are part of every urologist's training. Sexual dysfunction, usually resulting from erectile dysfunction (ED), is one of the most prevalent consequences of prostate cancer treatment (2). Other sexual side effects include decreased sexual desire, ejaculation disorders, and orgasm impairment (3). After radical prostatectomy (RP), the rate of ED varies from 25% to 90%, depending on pre-existing erectile function, age, definition of ED, preservation of neurovascular bundles, the surgeon's experience, and surgical technique (2, 4-5). Up to 64% of patients experience ED after external beam radiation therapy, and about 50% of men report ED following brachytherapy (2, 6). Furthermore, the erectile function is affected in up to 85% of patients receiving androgen deprivation therapy (7).

Experiencing sexual problems, which is in most cases ED, can severely affect quality of life (8). Consequently, it is crucial that patients are well informed about the possibility of developing sexual dysfunction as a part of informed consent and about treatment options for ED (9). Training in the counseling of sexual issues and the treatment of sexual dysfunction frequently does not form part of the medical school curriculum (10). Implying that few physicians receive education about sexual function and practical skills to adequately perform sexual counseling before starting urology residency (11). Due to the lack of fundamental training, urology residents may not feel well equipped or sufficiently confident to discuss these problems. Considering urologists are consulted by numerous prostate cancer patients during their careers, it is highly relevant that residents obtain knowledge and skills and are comfortable about addressing sexual concerns. The aim of this study was to assess urology residents' current knowledge and practice in and barriers to discussing sexual dysfunction, whether formal training in the counseling of prostate cancer-related sexual dysfunction is provided, and the potential need for additional training.

Materials and methods

Questionnaires were distributed to Dutch urology residents visiting a national training course halfway through the academic year in June 2015, to perform a cross-sectional survey. The study sample targeted all third to sixth year urology residents in the Netherlands ($n = 101$), excluding first and second year residents as they perform general surgery rotations and do not yet counsel prostate cancer patients. Residents who were not able to attend the course have not been approached. Questionnaires

were completed individually and anonymously at the beginning of a lecture, after which they were returned in the envelope provided.

The instrument was designed by the authors, as no validated questionnaire for assessing the study objectives is available. Questions were based on the study aim and previous questionnaires investigating the provision of sexual health care by oncology care providers (12-14). A pilot study was performed by three senior medical interns, checking the length, layout, linguistic flaws, comprehensiveness of questions, and responses. On the basis of their comments, questions were removed and small modifications were made. The final questionnaire consisted of 25 items assessing the following topics:

- demographic details
- previously received educational training in sexual dysfunction
- sufficiency of current education on sexual dysfunction and potential training need
- competence in discussing sexual function with prostate cancer patients
- practice in addressing and treating sexual function. Familiarity with referral options, awareness of responsibility for addressing sexuality within the treatment team, and availability of information material
- possible barriers that prevent residents from discussing sexuality
- factors that would assist in implementing sexual counseling in daily practice

Quantitative data were analyzed using SPSS 20 (Chicago, IL). Frequency analysis and descriptive statistics were used to assess numerical values. Bivariate associations between demographic information and categorical data were calculated using Pearson's chi-square procedure and means in different groups using independent sample t test. Two-sided p values <.05 were considered statistically significant.

Results

Survey population

All residents who attended the course (n = 87) agreed to participate in the survey, resulting in a response rate of 100%. Currently, the Netherlands comprises a total of 101 third to sixth year urology residents; thus, 86.1% of all residents were included in the sample. Demographic characteristics, residency year, and clinical settings are presented in Table 1.

Table 1. Demographic characteristics (n = 87).

| | n (%) |
|------------------------------------|------------|
| Gender | |
| Male | 39 (44.8) |
| Female | 48 (55.2) |
| Age (years) | |
| Median 32.0 (range 28 - 38) | 87 (100.0) |
| Mean 32.7 | |
| Year of residence | |
| 3 rd year | 17 (19.5) |
| 4 th year | 23 (26.4) |
| 5 th year | 25 (28.7) |
| 6 th year | 21 (24.1) |
| NA | 1 (1.1) |
| Clinical setting | |
| University hospital | 46 (52.9) |
| District general teaching hospital | 35 (40.2) |
| District general hospital | 5 (5.7) |
| Cancer institute | 1 (1.1) |

NA: Not available

Knowledge and training

Of all participating residents, 58.6% had never received training or education about addressing sexuality during their career (n = 51); also, a significant percentage of fifth and sixth year residents had never attended a sexuality training (Fig. 1). Of the participants who had received training or education, 17 residents stated they had attended a lecture concerning this subject, 8 respondents had undertaken self-study, 6 had participated in a workshop, 8 had attended an educational training within their hospital, and 5 declared they had visited reference evenings or congresses that addressed sexuality. When it comes to knowledge, 45 residents reported possessing sufficient knowledge (51.7%), 39 had limited knowledge (44.8%), and 3 had little knowledge (3.5%). Table 2 shows the level of knowledge in relation to other reported factors.

Figure 1. Attendance of sexual dysfunction training in the past (A), additional training need (B), and self-reported competence in advising on sexual dysfunction (C) presented by residency year (R3–R6).

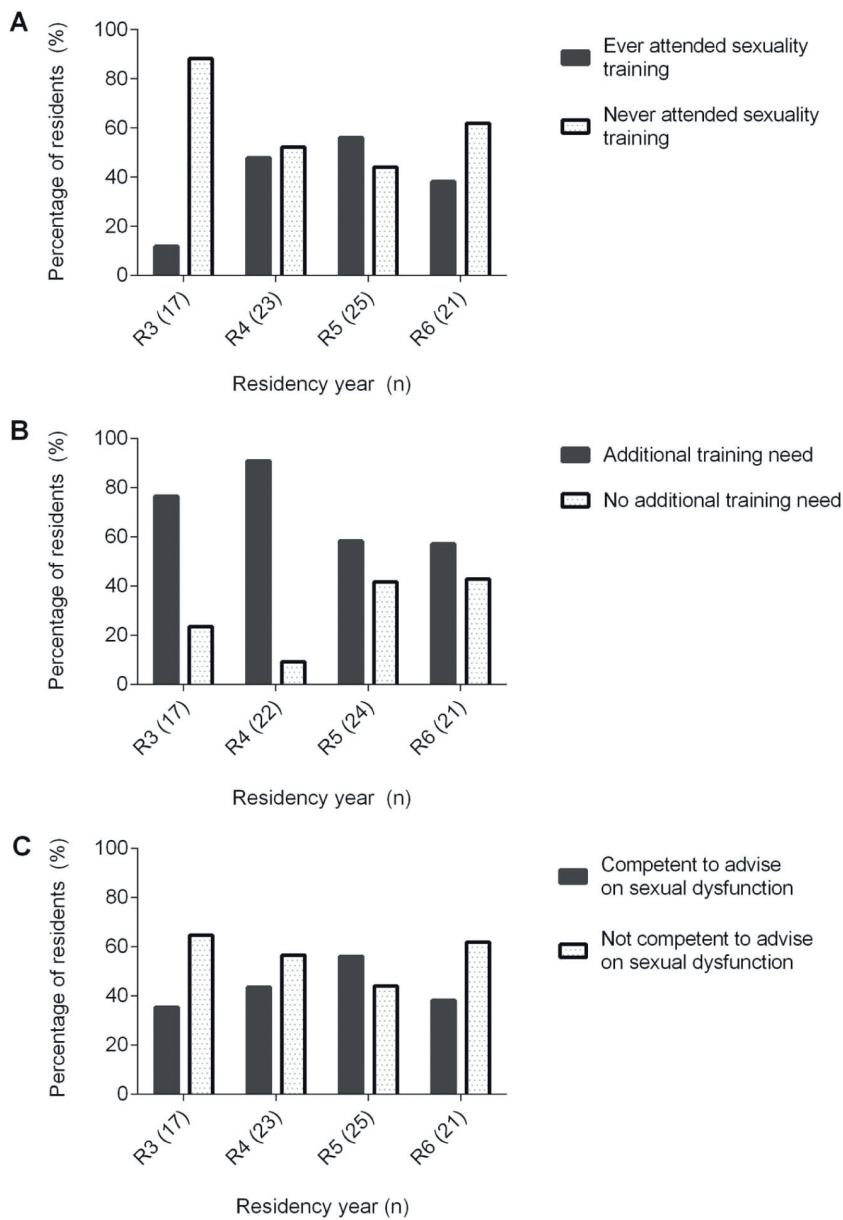


Table 2. Association between level of knowledge and characteristics of residents (n = 87).

| | Sufficient knowledge n (%) | Limited and little knowledge^a n (%) | p-value^b |
|--|---------------------------------------|---|----------------------------|
| Male | 25 (64.1) | 14 (35.9) | 0.037 |
| Female | 20 (41.7) | 28 (58.3) | |
| 3 rd and 4 th year of residency | 16 (40) | 24 (60) | 0.053 |
| 5 th and 6 th year | 28 (60.9) | 18 (39.2) | |
| 28-32-year-old residents | 23 (52.3) | 21 (47.7) | NS ^c |
| 33-38-year-old residents | 22 (51.2) | 21 (48.8) | |
| Attended a sexuality training | 24 (66.7) | 12 (33.3) | 0.019 |
| Never attended a sexuality training | 21 (41.2) | 30 (58.8) | |
| Feels competent to advise on treatment of sexual dysfunction | 27 (69.2) | 12 (30.8) | 0.003 |
| Does not feel competent to advise on treatment of sexual dysfunction | 18 (37.5) | 30 (62.5) | |
| Preference for enhancing knowledge | 24 (40.7) | 35 (59.3) | 0.006 |
| No need to enhance knowledge | 19 (73.1) | 7 (26.9) | |

a. Limited and little knowledge taken together, as the expected measure of limited knowledge (n = 3), was too low for adequate computing.

b. Chi-square procedure.

c. NS: Not significant

More than half of the residents agreed that poor (54.8%, n = 46) and below-average (3.6%, n = 3) attention is paid to sexual health issues during their current urology residency. Sixty-nine percent (n = 59) would like to enhance their knowledge with regard to discussing sexuality with patients and treatment of sexual dysfunction, including fifth and sixth year residents who indicated a preference for additional training (Fig. 1).

Competence in discussing sexuality

The statement “I feel competent to address sexual side effects” was answered affirmatively by 50.6% of the residents, and a majority of 78.2% felt sufficiently competent to inquire about sexual problems. Gender did not influence the competence measured by these items (p = .240, respectively, p = .439). Less than half of the residents (44.8%) reported being competent when it came to advising patients specifically about the treatment of sexual dysfunction; again, there was no difference between male and female residents (p = .520).

Practice and treatment for sexual dysfunction

To the question: “With which percentage of your prostate cancer patients did you discuss their sexual function in the past year?” residents answered with an average of 56.8%

patients ($n = 85$; standard deviation 27.7; range 0-100%). The average percentage of patients with whom sexual dysfunction was discussed did not differ between male and female residents (58% vs 55.8%, $p = .713$). Table 3 presents the current practice regarding information provision and treatment of sexual dysfunction. Ninety percent of the residents ($n = 78$) inquire about pre-existing ED before patients undergo prostate cancer treatment, with no difference in frequency of prescribing between male and female residents ($p = .935$). Thirteen participants request that patients bring their partners for a consultation on sexual function (15.1%); 84.9% ($n = 73$) does not.

Table 3. Answers to questions regarding practice patterns.

| | Often/ always n (%) | More than half of the cases n (%) | Half of the cases n (%) | Less than half of the cases n (%) | Never/ rarely n (%) |
|--|---------------------------|--|-------------------------------|--|---------------------------|
| Patients report sexual concerns by themselves | 1 (1.1) | 5 (5.7) | 16 (18.4) | 49 (56.3) | 16 (18.4) |
| Informing patients about possible sexual side-effects | 77 (88.5) | 8 (9.2) | 0 (0.0) | 1 (1.1) | 1 (1.1) |
| Asking about patients' sexual function during follow-up | 29 (33.7) | 26 (30.2) | 12 (14.0) | 15 (17.4) | 4 (4.7) |
| Prescribing phosphodiesterase-5 inhibitors to patients with ED | 22 (25.3) | 23 (26.4) | 27 (31.0) | 13 (14.9) | 2 (2.3) |

Referral and availability of information materials

Seventy-seven percent of the residents ($n = 67$) were aware of where patients should be referred for counseling of complex sexual dysfunction. Most residents (54.0%) stated that they refer patients to a sexologist, 19.5% to a urologist–sexologist or andrologist, and 8.0% to an oncology nurse. Two residents reported referral to a pelvic floor therapist. Regarding responsibility within a department, 40.7% of the participants ($n = 35$) reported that there are no agreements on who is responsible for discussing sexuality; 38.4% was unaware of such agreements ($n = 33$). A minority of the residents were employed in a hospital where the task of addressing sexual concerns within the urology department was allocated ($n = 18$, 20.9%). According to 46% of the residents ($n = 40$), information on treatment-related sexual dysfunction is available; 32.2% ($n = 28$) was unaware of the presence of such documentation, and 21.8% ($n = 19$) indicated that this material is not present in their hospital.

Responsibility among treatment team members

Residents reported the urologist ($n = 86$, 98.9%), radiotherapist ($n = 63$, 72.4%), oncology nurse ($n = 62$, 71.3%), and the general practitioner ($n = 35$, 40.2%) as being

most responsible in the area of diagnosis. During follow-up, the oncology nurse (n = 72, 82.8%), sexologist (n = 68, 78.2%), general practitioner (n = 59, 67.8%), psychologist (n = 47, 54%), and the pelvic floor physiotherapist (n = 38, 43.7%) were considered responsible for discussing sexuality with prostate cancer patients.

Obstacles preventing sexual communication

The reasons for residents not discussing sexual concerns with their prostate cancer patients were: “lack of time during a consultation” (67.1%), “lack of training” (35.3%), “language or ethnicity barrier” (34.1%), “the patient is too ill” (31.8%), “presence of a third party” (24.7%), “advanced age of the patient” (24.7%), and “surviving is more important” (20%).

Implementing sexual health care

The residents were asked to indicate which factors would be helpful in implementing sexual health care for men with prostate cancer in their current practice. The most convenient solution would be the assistance of a nurse who routinely discusses sexual concerns with all prostate cancer patients (n = 65, 78.1%). A majority (n = 60, 72.4%) indicated that the availability of information material regarding treatment related to sexual dysfunction would be beneficial. More than half of the residents (n = 46, 54.8%) indicated that a practical training on how to discuss sexual problems would help them to initiate these discussions, as well as good referral options for patients with sexual concerns (n = 46, 54.8%).

Comment

Key results

The purpose of this survey was to provide an insight into the current urology residency training and the confidence of residents in addressing and advising on sexual dysfunction. The most important results encompass an evident need for additional training on the counseling and treatment of sexual dysfunction in men facing prostate cancer. Regardless of the residency level, most trainees have never received sexual education, report a limited level of knowledge, and require a need for training. Residents do not regularly prescribe medication for erectile dysfunction and less than half of them feel competent to treat patients for sexual dysfunction. Almost every resident provides information regarding sexual dysfunction prior to treatment, yet addressing the subject during follow-up is not a matter of routine. Barriers to discussing sexual function were lack of time during a consultation, lack of training, language obstacles, and a severe degree of illness. Residents indicated that assistance of a nurse, extended availability of information material, and additional practical training would assist them in routinely providing sexual health care.

Comparison with literature

Luján et al surveyed 140 urology residents from 19 European countries with regard to the management of premature ejaculation (15). Supposing this is not a condition associated with prostate cancer treatment-related sexual dysfunction, it is a condition associated with the field of sexual issues. Likewise, the results of this survey showed that urology residents received insufficient education in sexual dysfunction. In 2012, a survey was carried out among Canadian urology chief residents regarding satisfaction with their surgical training (16). It, however, also assessed level of training in andrology and sexual dysfunction. Of the graduated participants, 67.8% believed they received inadequate training in andrology and sexual dysfunction. Although the Canadian Urological Association might have different educational programs and training requirements compared to the European Board of Urology, the lack of training does not only seem to apply to the European situation. A survey among physician members of the American Urogynecologic Society (17). on addressing female sexual dysfunction showed that half of the respondents were not satisfied with their training in this subject and also that they did not consistently screen for female sexual dysfunction (17). Participants in the current survey reported a lack of knowledge on prostate cancer-related sexual dysfunction regardless of residency year, an outcome that does not correspond to the expected learning curve during residency. As residents gain training and knowledge, they might also recognize gaps in their knowledge. The lack of training among residents conjointly indicates that education in sexual dysfunction is not adequately represented in undergraduate programs. Up-to-date research on the provision of sexual education within medical schools is, however, limited (18). In 2008, for instance, a survey among 2261 students enrolled in MD degree granting in the United States and Canada was described (19). More than half of the respondents ($n = 1206$) stated that they had not received sufficient training on how to address sexual concerns clinically, corresponding with our results. This finding indicates that training in sexual communication is already lacking among medical students, the phase before starting a residency. To prevent a knowledge gap between developments in sexual dysfunction treatments and clinical practical skills, education during an earlier phase could significantly enhance the feeling of competence in discussing sexual concerns among future physicians.

Urology residency

The specific skills covered during urology residency differ between individual training programs, as well as between countries and continents. In the Netherlands, urology training consists of 2 years' general surgery, followed by 4 years of urology training, covering benign and malignant diseases. During urology training, the residents regularly have independent patient consultations in both the outpatient and inpatient clinics. Current educational program provides a 1-day andrology training, where

sexual dysfunction is a leading subject. Whether other training on sexual dysfunction is attended, depends on the local training program. As reported by the Dutch learning objectives, a urologist should possess sufficient knowledge about male sexual dysfunction and should be able to diagnose adequately and treat the problem with medication or by surgery. Another important objective is that the urologist is able to adequately communicate about sexual dysfunction by taking a sexual history and explaining treatment possibilities. Minimum level of knowledge for European board-certified urologists is considered familiarity with all the European Association of Urology Guidelines. The European Association of Urology Guidelines on male sexual dysfunction pay significant attention to post-prostate cancer treatment ED (20). All future urologists are supposed to receive adequate training on the subject to be able to advise and treat their patients. Although an evident lack of knowledge and wish for training among Dutch urology residents are presented here, it is not clear whether these results are applicable to other residency trainings or to what extent other training facilities address male sexual dysfunction.

Importance of adequate sexual communication skills

Changes in sexual functioning as a result of prostate cancer treatment can severely affect the quality of life and influence the relationship with the partner (21-24). More than half of all men with prostate cancer reported being in great need of discussing sexuality issues with their healthcare professionals (25). Furthermore, focus group research indicated that partners of men with prostate cancer had not sufficiently received emotional and psychological support (26). Sexual function is as highly valued by patients as urinary control and more highly valued than other side effects and treatment characteristics (9). Patients indicated that the provision of useful information and satisfactory interaction with their healthcare providers was a large part of their adaptation when it comes to changes in their sexuality (27). The apparent need for information and psychosexual support reported by patients, and even more by their partners, endorses the fact that it is important that urologists are aware they should offer this crucial component of care.

Strengths and limitations

As all urology residents present at the national training course completed the questionnaire, a nonresponse bias was not induced. However, a social desirability bias could still be present, resulting in an under- or overestimation, as residents participated during a training day organized by the educational board. Furthermore, as the survey was conducted prior to a lecture on andrology, it is plausible that an increased focus on the subject of sexual dysfunction was introduced. A nonvalidated questionnaire has been used, as a validated instrument assessing the specific study aims is not available.

Content or construct validity was not measured as the instrument was not developed for purposes other than this specific survey. This was a single-country survey, and so the results may not be representative of the European and worldwide situation. Still, the results demonstrate an evident problem which provides us with future research topics regarding the current international educational program, both for urology residents as well as medical students opting for an MD degree.

Clinical implications

Considering that physicians from other medical specialties involved with prostate cancer patients (i.e. radiation oncologists (14) and oncology nurses (13)) do not routinely advise men on treatment-related sexual dysfunction and generally refer to urologists and urology residents, urologists should feel competent to treat sexual dysfunction. Nevertheless, residents experience various barriers to communicating about this topic, mainly reporting a lack of time and practical training. The survey results implied that residents consider oncology nurses responsible and helpful in providing sexual health care for patients after prostate cancer treatment. Although the oncology nurse could play a significant role in signaling and discussing sexual issues, the etiology and medical treatment remain a physician's specialty and thus responsibility. Enhancement of the cooperation between trained nurses and urologists could save time and dramatically improve care. Regardless of a task allocation, the urologist is supposed to have sufficient knowledge of the underlying etiology and the treatment of sexual dysfunction. Education starts during medical school followed by urology residency. To reinforce residents' elemental knowledge and skills, institutions are urged to develop an intensified course and ensure that the subject is studied in depth during their training programs. It is recommended that all international residency trainings be checked for compliance with regard to the implementation of education on male sexual dysfunction.

Conclusion

Urology residency trainings do not pay sufficient attention to sexual communication skills and the treatment of sexual dysfunction. The residents are in need of more knowledge and more practical training in sexual counseling. As adequate training is a requirement for managing sexual health problems, the education provided during urology residency should be enhanced for the benefit of prostate cancer patients and future urologists to improve confidence and competence in providing sexual health care. The development of a core curriculum for urology residencies, including full coverage of sexual communication skills, knowledge on the etiology of sexual dysfunction, and the treatment of sexual issues, should be a priority for program directors.

References

1. International Agency for Research on Cancer, World Health Organization. GLOBOCAN 2012: Estimated Cancer Incidence, Mortality and Prevalence Worldwide in 2012. Available at: http://globocan.iarc.fr/Pages/fact_sheets_cancer.aspx. Accessed July 31, 2015.
2. Potosky AL, Davis WW, Hoffman RM et al. Five-year outcomes after prostatectomy or radiotherapy for prostate cancer: the prostate cancer outcomes study. *J Natl Cancer Inst* 2004;96:1358-1367. doi:10.1093/jnci/djh259 [doi];96/18/1358 [pii].
3. Chung E, Brock G. Sexual rehabilitation and cancer survivorship: a state of art review of current literature and management strategies in male sexual dysfunction among prostate cancer survivors. *J Sex Med* 2013;10 Suppl 1:102-111. doi:10.1111/j.1743-6109.2012.03005.x [doi].
4. Resnick MJ, Koyama T, Fan KH et al. Long-term functional outcomes after treatment for localized prostate cancer. *N Engl J Med* 2013;368:436-445. doi:10.1056/NEJMoa1209978.
5. Sanda MG, Dunn RL, Michalski J et al. Quality of Life and Satisfaction with Outcome among Prostate-Cancer Survivors. *N Engl J Med* 2008;358:1250-1261. doi:doi: 10.1056/NEJMoa074311.
6. Merrick GS, Butler WM, Wallner KE et al. Erectile function after prostate brachytherapy. *Int J Radiat Oncol Biol Phys* 2005;62:437-447. doi:S0360-3016(04)02711-7 [pii];10.1016/j.ijrobp.2004.10.001 [doi].
7. Benedict C, Traeger L, Dahn JR et al. Sexual Bother in Men with Advanced Prostate Cancer Undergoing Androgen Deprivation Therapy. *The Journal of Sexual Medicine* 2014;11:2571-2580.
8. Meyer JP, Gillatt DA, Lockyer R, Macdonagh R. The effect of erectile dysfunction on the quality of life of men after radical prostatectomy. *BJU Int* 2003;92:929-931. doi:4530 [pii].
9. Knight SJ, Latini DM. Sexual side effects and prostate cancer treatment decisions: patient information needs and preferences. *Cancer J* 2009;15:41-44. doi:10.1097/PPO.0b013e31819764cc [doi];00130404-200902000-00008 [pii].
10. Solursh DS, Ernst JL, Lewis RW et al. The human sexuality education of physicians in North American medical schools. *Int J Impot Res* 0 AD;15:S41-S45.
11. Sharon J, Parish MD, Anita H, Clayton MD. CME: sexual medicine education: review and commentary. *J Sex Med* 2007;4:250-268.
12. Krouwel EM, Hagen JH, Nicolai MPJ et al. Management of sexual side effects in the surgical oncology practice: A nationwide survey of Dutch surgical oncologists. *European Journal of Surgical Oncology (EJSO)* 2015;41:1179-1187.
13. Krouwel EM, Nicolai MPJ, van Steijn-van Tol AQMJ et al. Addressing changed sexual functioning in cancer patients: A cross-sectional survey among Dutch oncology nurses. *European Journal of Oncology Nursing*.
14. Krouwel EM, Nicolai MP, van der Wielen GJ et al. Sexual concerns after (pelvic) radiotherapy:

- is there any role for the radiation oncologist? Accepted for publication at 07-07-2015.
15. Lujan S, Garcia-Fadrique G, Morales G, Morera J, Broseta E, Jimenez-Cruz JF. Are urology residents ready to treat premature ejaculation after their training? *J Sex Med* 2012;9:404-410. doi:10.1111/j.1743-6109.2011.02571.x [doi].
 16. Bachir BG, Aprikian AG, Kassouf W. Are Canadian urology residency programs fulfilling the Royal College expectations?: A survey of graduated chief residents. *Can Urol Assoc J* 2014;8:109-115.
 17. Pauls RN, Kleeman SD, Segal JL, Silva WA, Goldenhar LM, Karram MM. Practice patterns of physician members of the American Urogynecologic Society regarding female sexual dysfunction: results of a national survey. *Int Urogynecol J Pelvic Floor Dysfunct* 2005;16:460-467. doi:10.1007/s00192-005-1286-5 [doi].
 18. Shindel AW, Parish SJ. Sexuality Education in North American Medical Schools: Current Status and Future Directions (CME). *The Journal of Sexual Medicine* 2013;10:3-18.
 19. Shindel AW, Ando KA, Nelson CJ, Breyer BN, Lue TF, Smith JF. Medical Student Sexuality: How Sexual Experience and Sexuality Training Impact U.S. and Canadian Medical Students Comfort in Dealing with Patients Sexuality in Clinical Practice. *Acad Med* 2010;85:1321-1330.
 20. Guidelines on Male Sexual Dysfunction; European Association of Urology 2014. Available at: http://uroweb.org/wp-content/uploads/14-Male-Sexual-Dysfunction_LR.pdf. European Association of Urology EAU 2015. 2015.
 21. Johansson E, Steineck G, Holmberg L et al. Long-term quality-of-life outcomes after radical prostatectomy or watchful waiting: the Scandinavian Prostate Cancer Group-4 randomised trial. *The Lancet Oncology* 2011;12:891-899.
 22. Balderson N, Towell T. The prevalence and predictors of psychological distress in men with prostate cancer who are seeking support. *British Journal of Health Psychology* 2003;8:125-134.
 23. Couper J, Bloch S, Love A, Macvean M, Duchesne GM, Kissane D. Psychosocial adjustment of female partners of men with prostate cancer: a review of the literature. *Psycho-Oncology* 2006;15:937-953.
 24. Manne S, Badr H, Zaider T, Nelson C, Kissane D. Cancer-Related Communication, Relationship Intimacy, and Psychological Distress Among Couples Coping with Localized Prostate Cancer. *J Cancer Surviv* 2010;4:74-85.
 25. Flynn KE, Reese JB, Jeffery DD et al. Patient experiences with communication about sex during and after treatment for cancer. *Psychooncology* 2012;21:594-601. doi:10.1002/pon.1947.
 26. O'Shaughnessy PK, Ireland C, Pelentsov L, Thomas LA, Esterman AJ. Impaired sexual function and prostate cancer: a mixed method investigation into the experiences of men and their partners. *J Clin Nurs* 2013;22:3492-3502.
 27. Hanly N, Mireskandari S, Juraskova I. The struggle towards 'the New Normal': a qualitative

insight into psychosexual adjustment to prostate cancer. *BMC Urol* 2014;14:56. doi:1471-2490-14-56 [pii];10.1186/1471-2490-14-56 [doi].