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Multilevel interventions to address sexual health challenges in men with prostate cancer

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Background: Men treated for prostate cancer (PCa) experience post-treatment sexual dysfunction, including decreased libido and erectile dysfunction. Sexual health issues are expected following the diagnosis and treatment of PCa, which impairs the quality of life in men.

Aim: This article proposes multilevel interventions to address the men's sexual healthcare (SHC) gaps following PCa diagnosis and treatments.

Setting: The setting of this article is the radiation oncology environment within the context of the sexual health of men with PCa.

Methods: A qualitative retrospective study design was adopted in this article as the authors revisited the previously published data. The authors methodically analysed qualitative data using deductive and inductive approaches to expand and operationalise the first author's 2017 psychosexual counselling guidelines.

Results: Four levels of multiple-level interventions were identified and further expanded into seven nonpharmacological interventions to improve SHC in men with PCa post-radiotherapy. These levels of interventions include the patient, peer support, provider and system levels.

Conclusion: It is hoped that these interventions will contribute to the sexual well-being of men with PCa through this nonpharmacological interventional approach.

Contribution: This article provides pragmatic interventions to address the challenging and unspoken concerns of men undergoing treatment for PCa in the ROD. Methodologically, it advances deductive and inductive analyses for rich interpretative analysis.

Keywords: prostate cancer; radiotherapy; sexual healthcare; sexual health counselling; multilevel interventions; nonpharmacological interventions.

Introduction

Prostate cancer (PCa) is the most common cancer in men aged 65 years and older.[1,2] Men treated for PCa experience post-treatment sexual dysfunction, including decreased libido and erectile dysfunction.[3,4] This group of patients generally experience unmet sexual health needs, usually because of poor communication regarding intimacy and sexuality with oncology staff.[5,6,7] Cormie et al.[8] affirm that 90% of men will experience sexual dysfunction following PCa treatments.

The current PCa treatment approaches are associated with reasonable survival rates, leading to many PCa survivors living well beyond diagnosis and treatment.[3,9] It is therefore essential to consider interventions that provide these patients with a better quality of life despite the side effects of PCa diagnosis and treatment. As highlighted by Phahlamohlaka et al.,[10] the psychosexual experiences of men following radiotherapy for PCa include the loss of sexual function. In the study mentioned above, the authors qualitatively studied the experiences of male patients following radiotherapy for PCa. Further, the authors developed and discussed the following three main themes that coexist with these sexual health experiences:

- sexual experiences after PCa diagnosis
- the impact of losing sexual function on relationships
- the lack of information from oncology healthcare professionals (HCPs) regarding sexual health.

Furthermore, it has been shown that this cohort of patients can benefit from counselling because it can help them and their partners to set realistic expectations.[3,11,12,13]

There is a plethora of literature on the sexual health effects in patients with PCa following treatment of the disease.[9,8,14] However, there is a lack of research identifying interventions to be adopted by oncology HCPs to offer a well-tailored sexual health counselling programme within the radiation oncology environment. Furthermore, limited comprehensive guidelines address sexual health problems among people with cancer.[9,15]

Addressing this gap in radiation oncology care and practice would require consideration of multilevel interventions. The overall intentions of writing this article are to propose multilevel interventions that could:

- improve sexuality-related outcomes in men with PCa (*patient level*)
- increase support from other patients living with cancer (*peer support level*)
- increase the provision of sexual healthcare (SHC) by HCPs (*provider level*)
- develop a sustainable pathway to deliver SHC within the radiation oncology department (ROD) in private and public healthcare facilities (*system level*).

To this end, SHC interventions in this article's context refer to integrating discussions around sexual well-being into care provided by oncology HCPs to improve person-centred care in the ROD.

Background

Sexual health is a state of physical, emotional, mental and social well-being regarding sexuality; it is not just the absence of illness, dysfunctional organs or disability.[16] A decline in sexual activity in men with PCa is often the result of diagnosis and related treatments that may involve surgery, radiotherapy, hormonal treatment and other systemic therapies. It is therefore essential to offer SHC to all patients with cancer using a nonpharmacological therapeutic approach to improve their sexual response, body image, intimacy and relationship issues and sexual satisfaction.[9]

Oncology HCPs (radiation oncologists, radiation therapists [RTs], counsellors, e.g. social workers, psychologists and oncology nurses) should include the topic of sexuality as part of their counselling during the treatment care plan for oncology patients. However, many studies suggest that oncology HCPs are not prepared to converse about sexual health with patients.[17] As a result, these HCPs must develop more knowledge and skills in this area so that they can, in some way, meet the sexual health and well-being needs of men living with PCa.

Radiation therapists are usually well-positioned to provide sexual health information to patients with cancer because of their day-to-day interactions during the radiotherapy course. In addition to planning and delivering radiotherapy, RTs also provide patients with the necessary support during treatment. This support includes observing and monitoring the patients for treatment-related side effects while being an ear for the patient's emotional concerns and easing their anxieties.[18] However, a challenge exists in that HCPs and patients with cancer have inconsistent expectations regarding SHC.[19] According to Nisbet et al.,[17] a way to support a 'shared conversation' between the HCPs and patients about sexual health is to develop and employ sexual health screening checklists to guide conversations on this topic. In addition, HCPs must have a range of practical strategies, including the language of communication, simple checklists and access to useful resources to facilitate communication with patients regarding sexual dysfunction after PCa diagnosis and treatment.

Methods

This article followed a qualitative retrospective study design to follow up on the guidelines proposed by the first author in 2017 for psychosexual health counselling for men living with PCa following radiotherapy.[20] The research study mentioned above aimed to explore and describe the psychosexual experiences of men following radiotherapy for PCa. This article combined the two approaches of deductive and inductive analysis, which is uncommon for qualitative purist researchers. With this type of analysis, the authors' minds shifted from deductive reasoning to inductive reasoning and vice versa to thought analytic processes.[21] The basis of this approach was to build a logical argument for developing multilayered interventions in SHC.

Step 1: Deductive qualitative analysis

Deductive qualitative analysis was used to explore the themes and guidelines that emerged from the original study.[22] Deductive analysis was adopted to guide the development of the proposed multilevel interventions from views, theories and conceptual frameworks adapted from current literature.[23]

Step 2: Inductive qualitative analysis

At this step, the first author took a bird's eye view of the data and looked for patterns in the data to develop multilevel interventions that could explain those patterns.[24] The author started with a set of observations and then moved from those particular experiences to a more general set of propositions about those experiences of male patients.[22] During this process, the author critically re-analysed the raw data from the interview transcripts. Finally, the author reviewed the previous psychosexual guidelines to aid the development of multilevel interventions.

Ethical considerations

This article does not contain any studies involving human participants performed by the authors. The multilevel interventions proposed in the article were drawn from the original research of the first author study. The Human Research Ethics Committee (HSREC) of the University of the Witwatersrand (ref. no. M1311100) and the Higher Degree Ethics Committee Academic Ethics Committee (AEC) of the University of Johannesburg (ref. no. AEC 61-01-23) approved this study.

Results and discussion

Proposed multilevel nonpharmacological interventions

The authors identified four levels of multiple-level interventions that were further expanded into seven nonpharmacological interventions to improve SHC in men with PCa post-radiotherapy. These interventions are not limited to oncology settings but could also be adapted by HCPs in other settings. Table 1 gives a breakdown of the interventions at various levels.

Patient-level interventions

Include sexual health in the management of men living with prostate cancer

Clinically validated framework models that address sexual health could be adapted and incorporated into managing patients living with PCa. The most popular models used in SHC are PLISSIT (permission, limited information, specific suggestion, intensive therapy), EX-PLISSIT (extended permission, limited information, specific suggestion, intensive therapy) and BETTER (bring up, explain, tell, timing, educate, record).[25,26] The PLISSIT model, developed by psychologist Annon[27] in 1976, is the counselling intervention method to address patients' sexual health problems. The extended PLISSIT model (EX-PLISSIT) and its predecessor, the PLISSIT model, are the most appropriate for this purpose. The acronym EX-PLISSIT has the following action steps:[26]

- The 'extended permission' (EX-P) step seeks permission or gives patients a chance to express their sexual well-being.
- The 'limited information' (LI) step provides helpful information on the impact of illness on sexuality and the effects of treatment on sexual function.
- The 'specific suggestion' (SS) step is to provide specific information to solve a particular issue of a patient.
- The 'intensive therapy' (IT) step is indicated only for the patient who could not be treated in the first three steps, requiring referral to a specialist, that is, a sexologist, for deepening the approach to a patent's sexual issues.

The core feature of the EX-PLISSIT model is permission-giving at every level of intervention while dealing with patients.[28] Another characteristic of the EX-PLISSIT model, expanded from the PLISSIT model, is a requirement to incorporate reflections and feedback following all the interventions.[26] Healthcare professionals, such as oncology nurses and RTs, may learn and advance counselling skills through conversations with patients about sexual health problems using the EX-PLISSIT model. Between 80% and 90% of sexual concerns can be addressed using the first three levels of the EX-PLISSIT model.[29] The BETTER model, a more robust alternative model (Table 2), could also be adapted to address the sexual health concerns of men living with PCa.

The EX-PLISSIT and BETTER models are highly recommended frameworks to aid HCPs with their discussions concerning the SHC of patients. The authors believe that these two models provide a straightforward, accessible, user-friendly approach to improving sexual health dialogue between patients with PCa and oncology HCPs and could easily be integrated into practice within the ROD without intensive training.

Establish a men's sexual health clinic within the radiation oncology setting

Establishing a dedicated sexual health clinic is needed within the ROD to 'break' the silence about the sexual health challenges experienced by men with PCa.[30] Religious beliefs and cultural stereotypes contributing to sexuality as a taboo should be considered in setting up a sexual health clinic.[31,32] It is also crucial for oncology HCPs to clarify their misplaced roles in SHC to avoid conflicting expectations[33] while ensuring that the part of the clinical psychologists and social workers remains paramount. Couple counselling is not commonly practised as part of patient care to address the challenges faced by partners of men living with PCa.[34] Thus, by involving clinical psychologists and social workers in the cancer care team, it will be possible to broaden the scope of the sexual health clinic for radiation oncology patients.

Communicate information on sexual health in multiple languages

While many survivors feel it is essential to receive information about sexual health, they are often not provided with this information and support services in a manner that is aligned with their culture and norms.[30] Sharing information on SHC in multiple languages may assist in addressing this issue. Resources containing information on sexual health should be

TABLE 1: Proposed multilevel interventions to address sexual health gaps.

Levels	Interventions
Patient level	Include sexual health in the management of patients with PCa
	Establish a men's sexual health clinic within the radiation oncology setting
	Communicate information on sexual health in multiple languages
Peer support level	Involve cancer survivors' support groups in a cancer treatment plan
Provider level	Raise awareness to change the attitudes of HCPs towards sexual health
System level	Empower HCPs with resources to enable the facilitation of SHC
	Integrate sexual health topics into curricula for oncology trainees

HCP, healthcare professional; PCa, prostate cancer; SHC, sexual healthcare.

TABLE 2: The BETTER model's description.

Abbreviations	Meanings
B	**Bring** up the topic.
E	**Explain** that sexuality is part of the quality of life, and patients should be aware that they can talk about it with the care team.
T	**Tell** patients that you will find appropriate resources to address their concerns.
T	**Timing** may not be appropriate now; they can ask for information anytime.
E	**Educate** patients about the side effects of their cancer treatments.
R	**Record** your assessment and interventions in patients' medical records.

Source: Adapted from Mick J, Hughes M, Cohen MZ. Using the BETTER Model to assess sexuality. Clin J Oncol Nurs. 2004;8(1):84–86. https://doi.org/10.1188/04.CJON.84-86

available and accessible to the patients and family members.[35] This information may be shared through brochures, hospital intranet sites, workshops, detailed workbooks, posters and slideshow presentations on screens in departmental waiting areas. However, the availability of these resources must not replace face-to-face consultations with the relevant HCPs. For example, patients in survival clinics reported infrequent communication about sexual health with their oncology care providers, despite wanting to engage in discussions with their HCPs on this topic.[30,33] By improving access to information, patients may be more open to discussing sexuality and intimacy. A language barrier between a doctor and a patient can be detrimental to the patient's care because it reduces both the satisfaction of both parties and the opportunity for person-centred care.[36] Clearly, effective and consistent communication with patients is essential to improving the quality of care for cancer patients.

Peer support-level interventions

Involve cancer survivors' support groups in a cancer treatment plan

Peer support counsellors led by cancer survivors are often overlooked instead of being considered an intervention option to counsel patients. Cancer support groups may better understand the patients' emotional state. Having been through similar experiences, they know stigmas and feelings of loneliness commonly shared by cancer survivors. By encouraging better communication and support, PCa patients may feel more optimistic about the future.[37,38] A strategy of using cancer support groups as part of patient care is solely based on shared personal experiences rather than a professionally defined support role,[39] which will add value to cancer care services. Men diagnosed with PCa should be encouraged to actively participate in cancer support groups, such as the Cancer Association of South Africa (CANSA), to counsel newly diagnosed patients with PCa. In addition, every oncology department should have cancer support groups comprising cancer survivors to provide peer counselling based on shared patient experiences. In doing so, the authors believe that oncology clinics would reach a cohort of men uncomfortable talking openly about sexual health issues.

Provider-level interventions

Raise awareness to change the attitudes of healthcare professionals toward sexual health

Talking about sexuality and intimacy is still perceived as immoral, unacceptable, embarrassing and hard to overcome.[40] Therefore, some HCPs find it difficult to discuss sexual health issues with patients. Healthcare professionals need to understand and consider the patients' experiences about how they perceive HCPs when dealing with their sexual health issues in routine care. Several authors have highlighted factors that create a barrier for the HCPs to engage with patients on sexual health.[32,33,41,42,43,44] These factors that underscore a need to raise sexual health awareness among oncology HCPs and patients in a clinical setting are presented in Table 3.

Table 3 presents common barriers to sexual health communication in most clinical oncology settings between HCPs and patients. Henceforth, the authors advocate for promoting the SHC theme in research and discussion by the oncology HCPs at seminars and conferences to enhance patient-centred care worldwide. Dyer[45] noted that implementing care guidelines for sensitive topics, such as sexuality, can be particularly challenging among HCPs without the necessary knowledge and competencies.

System-level interventions

Empower healthcare professionals with resources to enable the facilitation of sexual healthcare

Sexual healthcare is not routinely incorporated into the care plan for cancer patients because of well-reasoned challenges documented in the literature.[32,35,46] The first intervention addressed the most common challenges with sexual health counselling. Managers in healthcare settings should prioritise the professional development and training of HCPs to

TABLE 3: Barriers to sexual health communication in clinical settings.

A list of common barriers to sexual health dialogue	Patient-specific	Provider-specific	System-specific
Fear of opening up a can of worms	*	*	-
Afraid to offend or cause embarrassment	*	*	-
Concerns about the reactions of patients or staff	*	*	-
Mismatched expectations between patients and HCPs	*	-	-
Personal discomfort and lack of openness	*	-	-
Language barriers between patients and HCPs	*	-	-
Fear that patient may sexualise the consultation	-	*	-
Concern about own knowledge and abilities	*	*	-
The patient or HCP is of the opposite gender	*	*	-
Cultural or religious beliefs about sexuality	*	*	-
Sexuality issues are not of significant importance	-	*	-
Lack of time, resources and access to training	-	-	*
Lack of written information on sexual health	-	-	*
Lack of clear policy guidelines in the departments	-	-	*
Some HCPs feel it is someone else's task	-	*	-
Lack of communication among HCPs about the topic	-	*	-
Not given 'permission' to raise the issue	*	*	-
Assume it is not an important issue	-	*	-
Sexuality is an extremely personal topic	*	*	-
Advanced age of the patient	-	*	-
The age difference between HCPs and patient	*	*	-
The patient is not ready to discuss the topic	*	*	-
HCPs feel uncomfortable engaging in the subject with patients	-	*	-

HCP, healthcare professional.

advance SHC. For example, enrolling staff to do an online short course on sexual health counselling for oncology HCPs could make them more proficient in handling sexual health issues of patients with cancer.

Integrate sexual health subjects into curricula for oncology trainees

Often, there is a relative lack of SHC education and training in health-related courses.[47,48] Hardin[49] added that sexuality education is uncommon in nursing education and training programmes. For this reason, HCPs, including RTs, are ill-prepared to support cancer patients when sexual-related issues arise. Including sexual health education and training in the curriculum will allow trainees to develop the knowledge and skills required to raise sexual health issues with patients and provide relevant services.

Implementation considerations

Implementing these nonpharmacological interventions to improve SHC in men in radiation oncology settings requires changes at the patient, peer, provider and system levels. These interventions should improve the person-centred care approach to male sexual health at the patient level.

Oncology HCPs should take the role played by peer support groups in cancer care and consider it part of a cancer treatment plan for cancer patients within the oncology clinics. Ongoing awareness of sexual health in patients with cancer may begin to change attitudes and beliefs of oncology HCPs toward this topic. For these interventions to practically work within a specific health system, the national health department should at least ensure that all the vacant job posts are filled with appropriately skilled personnel in oncology departments. In addition, all public hospitals should be allocated enough budget to provide services such as in-house training of HCPs to advance continuous professional development. This will help the hospital managers with the necessary powers to organise training workshops or enrol HCP in short courses to develop skills in sexual health counselling. Nonetheless, the authors reckon that adopting and implementing new practices within any health profession takes some time as it requires the development of policy frameworks to guide HCPs in clinical settings at the national or international level.[15]

Knowledge contribution

The main contribution of this article is to highlight the pragmatic interventions anticipated to address the challenging and unspoken concerns of men undergoing treatment for PCa in the ROD. From a methodological perspective, this article provides insight into how deductive and inductive analytical approaches can be combined to provide a rich interpretative analysis. The authors used this lens of iterative analysis to relook at the raw 'old' data from the interview transcripts of the first author's previous study published[20] in 2017 to rethink the psychosexual guidelines published in the study as mentioned earlier, making them easy to implement in practice. In addition, this analysis could be helpful in qualitative research to leverage information-rich 'old' qualitative data to generate new publishable information.

Conclusion

It is expected that these interventions will bring about a positive change in men's sexual well-being during and after radiotherapy for PCa through this nonpharmacological interventional approach. Finally, the authors believe these interventions will improve person-centred care for men focusing on sexual health issues in oncology departments if the emphasis is put on providing the necessary support and training to HCPs.

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Competing interests

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Authors' contributions

The primary author, N.M.P., conceptualised, wrote and critically revised the final version of this article for publication. The co-author, S.M., contributed to the conceptualisation, writing and review of the article. All authors approved the final version of the document.

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Data availability

Data sharing does not apply to this article as no new data were created or analysed in this study.

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References

1. Rawla P. Epidemiology of prostate cancer. World J Oncol. 2019;10(2):63–89. https://doi.org/10.14740/wjon1191
2. Stangelberger A, Waldert M, Djavan B. Prostate cancer in elderly men. Rev Urol. 2008;10(2):111–119.
3. Nguyen DD, Berlin A, Matthew AG, Perlis N, Elterman DS. Sexual function and rehabilitation after radiation therapy for prostate cancer: A review. Int J Impot Res. 2021;33(4):410–417. https://doi.org/10.1038/s41443-020-00389-1

4. Watson E, Wilding S, Matheson L, et al. Experiences of support for sexual dysfunction in men with prostate cancer: Findings from a UK-wide mixed methods study. J Sex Med. 2021;18(3):515–525. https://doi.org/10.1016/j.jsxm.2020.12.017
5. Faiena I, Patel N, Seftel AD. Prevention of erectile dysfunction after radiotherapy for prostate cancer. Asian J Androl. 2014;16(6):805–806. https://doi.org/10.4103/1008-682X.133327
6. Gilbert E, Perz J, Ussher JM. Talking about sex with health professionals: The experience of people with cancer and their partners. Eur J Cancer Care. 2016;25(2):280–293. https://doi.org/10.1111/ecc.12216
7. Hordern AJ, Street AF. Communicating about patient sexuality and intimacy after cancer: Mismatched expectations and unmet needs. Med J Aust. 2007;186(5):224–227. https://doi.org/10.5694/j.1326-5377.2007.tb00877.x
8. Cormie P, Chambers SK, Newton RU, et al. Improving sexual health in men with prostate cancer: Randomised controlled trial of exercise and psychosexual therapies. BMC Cancer. 2014;14:199. https://doi.org/10.1186/1471-2407-14-199
9. Carter J, Lacchetti C, Andersen BL, et al. Interventions to address sexual problems in people with cancer: American Society of Clinical Oncology clinical practice guideline adaptation of cancer care Ontario guideline. J Clin Oncol. 2018;36(5):492–511. https://doi.org/10.1200/JCO.2017.75.8995
10. Phahlamohlaka MN, Mdletshe S, Lawrence H. Psychosexual experiences of men following radiotherapy for prostate cancer in Johannesburg, South Africa. Health SA. 2018;23:1057. https://doi.org/10.4102/hsag.v23i0.1057
11. Barbera L, Zwaal C, Elterman D, et al. Interventions to address sexual problems in people with cancer. Curr Oncol. 2017;24(3):192–200. https://doi.org/10.3747/co.24.3583
12. Brotto LA, Yule M, Breckon E. Psychological interventions for the sexual sequelae of cancer: A review of the literature. J Cancer Surviv. 2010;4(4):346–360. https://doi.org/10.1007/s11764-010-0132-z
13. Canada AL, Neese LE, Sui D, Schover LR. Pilot intervention to enhance sexual rehabilitation for couples after treatment for localized prostate carcinoma. Cancer. 2005;104(12):2689–2700. https://doi.org/10.1002/cncr.21537
14. Galbraith ME, Crighton F. Alterations of sexual function in men with cancer. Semin Oncol Nurs. 2008;24(2):102–114. https://doi.org/10.1016/j.soncn.2008.02.010
15. Mc Sharry J, Murphy PJ, Byrne M. Implementing international sexual counselling guidelines in hospital cardiac rehabilitation: Development of the CHARMS intervention using the behaviour change wheel. Implement Sci. 2016;11(1):134. https://doi.org/10.1186/s13012-016-0493-4
16. World Health Organization. Sexual health and its linkages to reproductive health: An operational approach [homepage on the Internet]. 2017 [cited 2021 Feb 22]. Available from: https://www.who.int/publications/i/item/978924151288
17. Nisbet H, Caulfield L, Holloway E. An evaluation of a therapeutic radiographer led 'sexual care after radiotherapy' clinic. Radiography. 2021;27(3):897–902. https://doi.org/10.1016/j.radi.2021.02.009
18. Department of Health, Republic of South Africa. Health Professions Act 56 of 1974. Regulations defining the scope of the profession of radiography (Government Gazette 43632) [statute on the Internet]. 2020 [cited 2022 Jul 16]. Available from: https://www.hpcsa.co.za/Uploads/RCT/Rules%20and%20Regulations/REGULATIONS_PUBLISHED_FOR_COMMENT.pdf
19. Banerjee SC, Manna R, Coyle N, et al. Oncology nurses' communication challenges with patients and families: A qualitative study. Nurse Educ Pract. 2016;16(1):193–201. https://doi.org/10.1016/j.nepr.2015.07.007
20. Phahlamohlaka MN. Psychosexual experiences of men following radiotherapy for prostate cancer in Johannesburg. [Magister Technologiae in Radiography]. Johannesburg, South Africa: University of Johannesburg; 2017:168. Available from: http://hdl.handle.net/10210/226613
21. Armat M, Assarroudi A, Rad M, Sharifi H, Heydari A. Inductive and deductive: Ambiguous labels in qualitative content analysis. Qual Rep. 2018;23(1):219–221. https://doi.org/10.46743/2160-3715/2018.2872
22. Azungah T. Qualitative research: Deductive and inductive approaches to data analysis. Qual Res J. 2018;18(4):383–400. https://doi.org/10.1108/QRJ-D-18-00035
23. Elo S, Kyngäs H. The qualitative content analysis process. J Adv Nurs. 2008;62(1):107–115. https://doi.org/10.1111/j.1365-2648.2007.04569.x
24. DeCarlo M. 6.3 Inductive and deductive reasoning. In: DeCarlo M, editor. Scientific inquiry in social work [homepage on the Internet]. Open Social Work Education; 2018 [cited 2022 Jul 12]. Available from: https://scientificinquiryinsocialwork.pressbooks.com/chapter/6-3-inductive-and-deductive-reasoning/
25. Mick J, Hughes M, Cohen MZ. Using the BETTER Model to assess sexuality. Clin J Oncol Nurs. 2004;8(1):84–86. https://doi.org/10.1188/04.CJON.84-86
26. Taylor B, Davis S. The extended PLISSIT model for addressing the sexual well-being of individuals with an acquired disability or chronic illness. Sex Disabil. 2007;25(3):135–139. https://doi.org/10.1007/s11195-007-9044-x
27. Annon JS. The PLISSIT model: A proposed conceptual scheme for the behavioral treatment of sexual problems. J Sex Educ Ther. 1976;2(1):1–15. https://doi.org/10.1080/01614576.1976.11074483
28. Daneshfar F, Behboodi-Moghadam Z, Khakbazan Z, et al. The influence of Ex-PLISSIT (extended permission, limited information, specific suggestions, intensive therapy) model on intimacy and sexuality of married women with multiple sclerosis. Sex Disabil. 2017;35:399–414. https://doi.org/10.1007/s11195-017-9482-z
29. Berek JS, Novak E. Berek & Novak's gynecology. 15th ed. Philadelphia, PA: Lippincott Williams and Wilkins; 2012.
30. Sporn NJ, Smith KB, Pirl WF, Lennes IT, Hyland KA, Park ER. Sexual health communication between cancer survivors and providers: How frequently does it occur and which providers are preferred? Psychooncology. 2015;24(9):1167–1173. https://doi.org/10.1002/pon.3736
31. Almahbobi G. Multiculturalism and inconsistency in the perception of sex education in Australian society. Australas Med J. 2012;5(12):623–626. https://doi.org/10.4066/AMJ.2012.1510
32. Krouwel EM, Albers LF, Nicolai MPJ, et al. Discussing sexual health in the medical oncologist's practice: Exploring current practice and challenges. J Cancer Educ. 2020;35(6):1072–1088. https://doi.org/10.1007/s13187-019-01559-6
33. Walsh J, Harrison JD, Young JM, Butow PN, Solomon MJ, Masya L. What are the current barriers to effective cancer care coordination? A qualitative study. BMC Health Serv Res. 2010;10:132. https://doi.org/10.1186/1472-6963-10-132
34. Regan TW, Lambert SD, Girgis A, Kelly B, Kayser K, Turner J. Do couple-based interventions make a difference for couples affected by cancer? A systematic review. BMC Cancer. 2012;12:279. https://doi.org/10.1186/1471-2407-12-279
35. Park ER, Norris RL, Bober SL. Sexual health communication during cancer care: Barriers and recommendations. Cancer J. 2009;15(1):74–77. https://doi.org/10.1097/PPO.0b013e31819587dc
36. Al Shamsi H, Almutairi AG, Al Mashrafi S, Al Kalbani T. Implications of language barriers for healthcare: A systematic review. Oman Med J. 2020;35(2):e122. https://doi.org/10.5001/omj.2020.40
37. Dunn J, Steginga SK, Rosoman N, Millichap D. A review of peer support in the context of cancer. In: Database of abstracts of reviews of effects (DARE): Quality-assessed reviews [homepage on the Internet]. York, UK: Centre for Reviews and Dissemination (UK); 2003 [cited 2022 Jul 5]. Available from: https://www.ncbi.nlm.nih.gov/books/NBK69735/
38. Hoey LM, Ieropoli SC, White VM, Jefford M. Systematic review of peer-support programs for people with cancer. Patient Educ Couns. 2008;70(3):315–337. https://doi.org/10.1016/j.pec.2007.11.016
39. Cancer.Net. Support groups [homepage on the Internet]. Alexandria, VA: American Society of Clinical Oncology; 2021 [cited 2022 Jul 16]. Available from: https://www.cancer.net/coping-with-cancer/finding-social-support-and-information/support-groups
40. Omeje JC, Eskay M, Obiageli MJ. Roles of counsellors in promoting sexuality education for in-school adolescents in Nigeria. J Psychol Res. 2012;2(12):711–718. https://doi.org/10.17265/2159-5542/2012.12.003
41. Bdair IA, ConsTantino RE. Barriers and promoting strategies to sexual health assessment for patients with coronary artery diseases in nursing practice: A literature review. Health. 2017;9(3):473–492. https://doi.org/10.4236/health.2017.93034
42. Cassidy C, Steenbeek A, Langille D, Martin-Misener R, Curran J. Designing an intervention to improve sexual health service use among university undergraduate students: A mixed methods study guided by the behaviour change wheel. BMC Public Health. 2019;19(1):1734. https://doi.org/10.1186/s12889-019-8059-4
43. Herson L, Hart KA, Gordon MJ, Rintala DH. Identifying and overcoming barriers to providing sexuality information in the clinical setting. Rehabil Nurs. 1999;24(4):148–151. https://doi.org/10.1002/j.2048-7940.1999.tb02162.x
44. Hoekstra T, Lesman-Leegte I, Couperus MF, Sanderman R, Jaarsma T. What keeps nurses from the sexual counseling of patients with heart failure? Heart Lung. 2012;41(5):492–499. https://doi.org/10.1016/j.hrtlng.2012.04.009
45. Dyer K, Das Nair R. Why don't healthcare professionals talk about sex? A systematic review of recent qualitative studies conducted in the United Kingdom. J Sex Med. 2013;10(11):2658–2670. https://doi.org/10.1111/j.1743-6109.2012.02856.x
46. Reese JB, Bober SL, Daly MB. Talking about women's sexual health after cancer: Why is it so hard to move the needle? Cancer. 2017;123(24):4757–4763. https://doi.org/10.1002/cncr.31084
47. Albers LF, Palacios LAG, Pelger RCM, Elzevier HW. Can the provision of sexual healthcare for oncology patients be improved? A literature review of educational interventions for healthcare professionals. J Cancer Surviv. 2020;14(6):858–866. https://doi.org/10.1007/s11764-020-00898-4
48. Beebe S, Payne N, Posid T, et al. The lack of sexual health education in medical training leaves students and residents feeling unprepared. J Sex Med. 2021;18(12):1998–2004. https://doi.org/10.1016/j.jsxm.2021.09.011
49. Hardin SR. Cardiac disease and sexuality: Implications for research and practice. Nurs Clin North Am. 2007;42(4):593–603. https://doi.org/10.1016/j.cnur.2007.07.006