Commentary

Talking About Women's Sexual Health After Cancer: Why Is It So Hard to Move the Needle?

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INTRODUCTION

Approximately half of women treated for cancer report cancer-related sexual concerns.[1-3] Common problems include those that are physical (eg, vaginal dryness, discomfort during intercourse),[4-8] psychological/emotional (eg, decreased sexual interest, body image distress, loss of femininity),[9-13] and interpersonal in nature (eg, changes in sexual scripts, loss of sex and intimacy).[11,14-16] There is a strong evidence base suggesting that sexual problems are not limited to women with breast or gynecologic cancer diagnoses, but rather are common and distressing for women diagnosed with a range of different cancers (eg, those with colorectal cancer,[2,17-19] bone marrow transplantation recipients,[20-22] and those with cancers of the head and neck).[23-25] Unlike other posttreatment health concerns that improve over time (eg, pain), without intervention sexual concerns tend to persist for women with cancer, leading to long-term sexual distress and potential negative consequences for women's individual and relationship well-being.[26-29] Further, if unaddressed, sexual problems can also compromise cancer treatment or prevention efforts. For example, problematic side effects of long-term cancer treatments, including difficulties with sexual arousal and desire, are among the key causes of early discontinuation or nonadherence to estrogen-reducing treatments or ovarian suppression for women with breast cancer.[30-33] Additionally, for women who carry a hereditary cancer mutation gene conferring high risk for breast and ovarian cancer, concerns about sexual side effects are a central reason for either delaying or ignoring recommendations for risk-reducing surgeries.[34,35] In sum, unaddressed treatment-related sexual dysfunction, as well as concern about potential sexual problems, potentially undermines care and directly compromises patient health-related outcomes in all women who undergo cancer-related treatment.

As both the prevalence and the persistence of sexual problems for women with cancer have been clearly established,[36] researchers and clinicians have routinely called for greater attention to sexual health for women with cancer. The authors of a number of recent "white papers," systematic and narrative reviews, and editorials about this subject in academic and clinical outlets all conclude there is a need for greater communication between patients and providers about sexual health.[37-43] Yet despite these calls to action, the majority of women experiencing treatment-related sexual dysfunction suffer without help.[44] Although oncology clinicians generally acknowledge the importance of addressing sexual health for women who have been treated for cancer,[45,46] and patients say they want their physicians to ask about these concerns,[47,48] communication about sexual health is not part of routine care for most individuals diagnosed with cancer.[44,49] Results of a recent systematic review published in the *Journal of Cancer Survivorship* demonstrated that across different studies and a range of cancer sites, fewer than one-third of women with cancer reported receiving information regarding potential sexual side effects of treatments, compared with twice as many men with cancer who had reported receiving such information.[44]

One potential explanation for this striking discrepancy is the belief that addressing sexual health with women who have been diagnosed with cancer is not useful because there is simply no "little blue pill" for women. There is a common assumption that the lack of a universal pharmacologic solution means there is little to offer the patient other than "just talk," which is likely to end in frustration for both patients and clinicians. If there is no easy solution to any of the problems women experience after cancer, then some professionals may believe that it is not worth raising the topic at all. Viewed alongside findings of the review in the *Journal of Cancer Survivorship*,[44] the belief that it is not worth raising the topic of sexual health is not only false, as we discuss later, but also underscores a troubling gender disparity within the context of

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DOI: 10.1002/cncr.31084, **Received:** August 22, 2017; **Revised:** September 22, 2017; **Accepted:** September 22, 2017, **Published online** November 8, 2017 in Wiley Online Library (wileyonlinelibrary.com)

sexual health treatment that must be acknowledged as we try to understand *why it is so challenging to move the needle and close this gap in care*. We contend that this perspective reflects problematic reasoning on several levels.

First, it is incorrect to assume that unless or until there is a singular pill or universal treatment that can easily reverse female sexual dysfunction, it is a fruitless endeavor to open this discussion. Using this logic, one could argue that psychological distress or pain should similarly be excluded from clinical interactions given that the causes and treatments of these conditions are often multifaceted and a universal treatment is not available. Although one might argue that this used to be the case, screening for both distress and pain now are standard of care for all patients with cancer,[50] in no small part because of the critical importance of these issues to patients' physical and mental well-being. Just as a discussion of distress or pain is necessary for patients to obtain an accurate appraisal of their problem and determine an appropriate course of treatment, so the inclusion of women's sexual health in cancer care is critical to lead to the same steps for women experiencing sexual concerns. Ironically, the assumption that female sexual dysfunction is always complicated misses the fact that sometimes patients and survivors actually need "simple strategies and solutions"[51] in order to jumpstart sexual rehabilitation. The survivor who struggles with low desire, for instance, may be primarily in need of help managing the discomfort associated with vaginal atrophy. For many women, the feeling of wanting to avoid sexual activity begins to significantly shift when sexual activity simply no longer hurts.

Second, although a universal treatment ("magic bullet") may not exist to treat women's sexual problems after cancer, there is a commonly held belief that there are no efficacious solutions to the problems associated with women's sexual health after cancer.[45,52] Yet in fact, efficacious treatments for women with cancer-related sexual problems are available and the evidence base is rapidly growing.[41,51,53-56] Physical aids such as vaginal moisturizers and lubricants for sexual intercourse have garnered substantial efficacy data for women who have mild to moderate vaginal dryness and discomfort.[57-60] Such aids can also be helpful in ameliorating more severe sexual problems. For instance, a recent clinical trial found that for breast cancer survivors with severe vaginal dryness and pain during intercourse, topical lidocaine (used along with these antidryness aids) was effective at reducing pain, improving women's sexual distress and function, and increasing their comfortable engagement in sexual intercourse.[39]

Interventions using behavioral approaches may be even more promising when compared with physical aids alone, however, because they can address emotional, interpersonal, and other important physical factors that frequently contribute to sexual dysfunction and distress[61] that the physical aids may not address, and because they can teach coping skills that can help women maintain improvement over time.[62] Behavioral interventions that include both education and skills-based instruction (eg, in communication with partners about sexual health) have demonstrated evidence of their efficacy in women with cancer.[53-55] Internet-based behavioral interventions are of particular interest because they could address sexual problems in women who are without access to multidisciplinary sexual health programs, which generally are limited to comprehensive cancer centers. For example, Schover et al compared a Web-based self-help intervention offering education and guidance on solutions for sexual problems with the same self-help plus 3 sessions of counseling in a randomized trial in 58 survivors of breast and gynecologic cancer and found that although distress and quality of life improved across both conditions, sexual function improved to a greater extent in those who received the counseling.[63] In a more recently published trial, Hummel et al found that intensive Internet-based cognitive behavioral therapy was effective at improving sexual function and related outcomes in 169 survivors of breast cancer meeting criteria for sexual dysfunction[56] according to the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).[64] Findings of these trials suggest that recent Web-based counseling interventions are highly effective in breast cancer or breast and gynecologic cancer samples[63,65] although they need to be tested in populations of women with cancer-related sexual problems outside of breast and gynecologic cancer. Telephone-based behavioral interventions could be helpful for reaching patients across a range of ages and levels of Internet use, and have gained some preliminary evidence in colorectal and breast cancer samples,[66,67] although larger trials of such interventions are needed. Face-to-face group interventions have also gained supporting evidence,[41,68] and are a promising choice for women with access to sexual health programs or similar services at their cancer centers. Community-based sex therapists or other mental health practitioners who have training in treating sexual problems in individual or couple formats can also provide key aspects of sexual rehabilitation for survivors. For instance, experienced clinicians could deliver clinical approaches which stand out as the most promising for addressing sexual distress and avoidance in women with cancer,

including those that use mindfulness-based techniques. These can be delivered in an individual context (eg, the brief mindfulness-based interventions for female sexual dysfunction developed by Brotto et al),[44,69-71] or in a couple-based context, through partnered sensual touching exercises (ie, Masters and Johnson-style sensate focus exercises).[41-43,51] Experienced sex therapists are also well-versed in educating clients about how to use personal products such as vibrators, which can not only enhance physical pleasure but also promote physical rehabilitation.[72] In addition, sex therapists can bring a wellspring of experience addressing other distressing issues for survivors such as diminished body image and decreased sexual self-esteem. In short, common interventions have been shown to reduce the symptoms and distress associated with sexual problems; clinicians should therefore feel comfortable recommending them.

Third, the assumption that cancer clinicians should shy away from sensitive or uncomfortable topics with their patients likely contributes to the clinical neglect of sexual health in this population. Yet this assumption has been challenged in recent years, as evidenced by the growing body of research studying the best methods for communicating about difficult issues in oncology such as palliative care, end of life, and "sharing bad news", such as disease progression.[73-75] By way of comparison, take the example of a patient with long-lasting or potentially permanent neuropathy resulting from chemotherapy. Discussing the potential permanence of this treatment side effect is likely to be a tough conversation, yet it is critical because it both validates the patient's concern and allows for a realistic appraisal of the patient's situation, which is a necessary first step in making adjustments in order to cope effectively with these changes. Clinicians would likely agree that a discussion of this patient's neuropathy is important to have even if there is no treatment available that can reverse these changes and even though the patient may hope for a different outcome. For a woman who faces permanent changes such as premature menopause or major body alterations secondary to surgery, clinical discussions serve a critical function by 1) helping her come to terms with this problem, and 2) allowing her to begin making necessary adjustments with regard to intimacy and/or sexual function. Even for women facing profound sexual changes, such as re-engaging in sexual activity after ostomy surgery, learning to increase engagement in non-intercourse-focused activities and developing other ways to experience physical and emotional closeness and affection are key components of rehabilitation and adjustment that can help preserve both relationship and individual well-being.[76]

Fourth, the cultural context in which such discussions occur must also be taken into account. Although American/Western culture is saturated with graphic, hypersexualized content, there is little encouragement – if not outright discouragement – to acknowledge and discuss the actual challenges women (and men) have about sex in "real life." In working with oncologists and other cancer clinicians, male clinicians have described to us their perception that if they raise the topic of sex with their female patients, this could be seen either as creating an awkward moment or as coming across as inappropriate, even as potentially "coming on" to the patient. Such concerns underscore the question of what it means to have a frank conversation about a woman's sexual health in a cultural context that simultaneously hypersexualizes women while silencing them when it comes to their sexual health needs. Would providers feel such discomfort if the topic of women's sexual function could be considered akin to any other domain of function? Would female patients feel more empowered to ask about treatment-induced sexual problems if sexual and vaginal health were not automatically connected to assumptions around sexual desirability and/or sexual activity? Further complicating the situation is that in a multicultural society and across a diverse population of women with cancer, there is potentially a wide range of meanings and values attributed to sexual function and health such that clinicians may worry about offending a patient because of religious or cultural assumptions. Moreover, historically, most oncology clinicians treating women with cancer have been male. Although clinician gender could theoretically influence clinical discussions of sexual health for women with cancer, current research has not uncovered clear patterns to this effect, whereas clinicians' years of clinical experience may be a relatively more important factor in determining the presence of discussions about sexual health.[45]

Finally, 3 additional commonly reported barriers to effective communication about women's sexual health after cancer warrant consideration: time constraints, inadequate training in how to hold such discussions, and lack of payment for discussions of sexual health.[77] With a lack of both time and training, providers may understandably worry about opening a Pandora's box when raising the subject of sexual concerns with a female patient,[77] particularly with respect to emotional or motivational issues that could surface such as low libido or relationship concerns.[45] Although clinical guidelines have emerged with recommendations for providers in addressing sexual

concerns,[40,78-80] these guidelines neither solve the problem of time constraints nor are they likely to be employed by providers lacking basic skills and training in sexual health. Furthermore, without adequate compensation for their time, it is unreasonable to expect providers to spend considerable amounts of time with patients on this issue, such as by conducting detailed sexual health assessments, considering that this may result in lost clinical revenue for them. Clearly, there are real-world constraints to sexual health communication for women with cancer. To have an impact, approaches to increase communication about sexual health for women with cancer can be developed that neither require substantial demands on clinicians' time nor demand extensive training, which we discuss next.

How to Move the Needle: Approaches to Training

In order to address these considerable challenges and move the needle on discussions of sexual health for women treated for cancer, efforts on multiple fronts are needed. Most providers need at least some education and training in how to communicate appropriately and effectively with their female patients about sexual issues. Provider-focused interventions could potentially include training in brief yet effective communication about female sexual concerns. Very few studies have tested interventions to this effect.[44] However, current efforts to improve provider discussion of sexual health for women with cancer are increasing, as evidenced by increasing numbers of symposia on sexual health being offered at various annual oncology meetings including those for radiation oncologists, palliative care clinicians, and clinical oncologists in general. There is also increasing interest in evaluating provider-focused communication skills interventions on sexual health for women with cancer among researchers in this area, including one such intervention currently being pilot tested by the first author (JBR).[45]

Ideally, education should be added early on to the training of medical and mental health professionals with regard to sexual health. Training for medical students should consider the range of issues covered within sexual health and include training in conducting a sexual history. Education about how sexuality is experienced for individuals at various stages of development and across different cultures is likely to foster a comfort in considering and discussing sexuality that will persist during one's career. For instance, the oncology fellowship offers an ideal time for specialized training around issues related to sexual health in relation to the cancer trajectory. At a minimum, education for trainees in oncology could offer a background in sexual health and function, information about the etiology of sexual health changes due to cancer treatments, and current research evidence supporting treatments for these issues. Education could also include issues of sexual health for those who identify as a sexual minority, cultural diversity considerations, and methods for offering specific suggestions for coping with sexual concerns. A similar, yet perhaps even briefer and more pragmatic approach could also be taken within the context of continuing medical education (CME) training to improve the communication skills of clinicians currently in practice. For instance, whereas cultural influences on sexuality could be dealt with through a workshop incorporating self-introspection and rich group discussions for medical trainees, it could be approached in a more straightforward way for those in practice, such as by teaching clinicians skills in asking patients to clarify culturally based sexual needs and preferences.

Another idea is to flag patients with sexual concerns and other health-related quality-of-life issues using patient-reported assessments in the clinic (among other health-related quality-of-life concerns) in order to facilitate sexual health discussions. A range of validated sexual function scales exist that effectively capture women's sexual function and distress after cancer (see Jeffery et al for a review[36], and one such measure could be added to patients' self-reported questionnaires at a consult or follow-up visit to identify patients in need of further assessment and treatment. Yet many cancer clinicians may be wary of adding more "red flags" to trigger clinical responsibilities when already feeling pressed, and such efforts have demonstrated limited and mixed results at increasing discussions of sexual concerns in clinic visits with patients at present.[81,82] Ultimately, provider-focused communication skills training interventions and patient flagging interventions may be most effective if combined, yet such an approach has not been evaluated.

A patient-focused approach is also critical to move the needle on discussions of sexual health for women after cancer. Interestingly, some clinicians have reported that when their patients brought up sexual issues, they themselves report being more likely to raise sexual concerns with other patients in the future,[45] perhaps because this clarifies the importance of the issue to them. In the same vein, recent qualitative work has suggested the central role of the patient voice in driving clinical discussions of sexual health.[45] Patient coaching interventions could help activate patients to engage their providers in discussions of sexual health, as other studies have sought to do in

encouraging patients to raise issues of pain with providers.[83,84] On an encouraging note, we are aware of several projects under development that aim to enhance patient-provider communication about sexual health in cancer by focusing on activating patients to raise the topic with their cancer providers.

How to Move the Needle: Approaches to Clinical Inquiry

There are practical considerations that must be considered in beginning the task of clinical inquiry around sexual health for women with cancer. Some may wish to approach the issue by separating out the topic of women's sexual health from sexuality and the act of sex, as when addressing female sexual health after cancer by querying aspects of function such as vulvovaginal health (eg, "have you had any vaginal dryness?"). Using this model, vaginal dryness and discomfort could be assessed by focusing on the bothersome nature of this symptom without addressing whether the dryness interferes with sexual activity. However, we would argue that this approach alone falls short because it misses other critical problems caused by cancer treatments, such as low libido, and more importantly, because it does not acknowledge a women's right to sexual health regardless of age, partner status, or sexual activity. Asking a single broad question during assessment may be a critical starting point. For example, recent guidelines issued by the National Comprehensive Cancer Network state that patients should be asked about sexual function at regular intervals, and suggest using broadly framed questions, such as by assessing patients' concerns about their sexual function, activity, or relationships, with a follow-up that asks if these concerns are causing any distress. A question like this one is feasible because it could become part of the standard review of systems and it is important because it both elevates sexual health to the level of other health concerns and sends the message that discussion of sexual health is normal and appropriate. Yet if this question is too broad, a clinician could ask a question that directly addresses changes related to the cancer treatment, such as, "Have you had any changes in your sex life that you'd like to discuss?" Normalizing the question first (eg, "Many women experience trouble with sexual activity or function after their cancer treatment") can give patients permission to discuss sexual health,[85] but if the question is inserted into a review of systems alongside other common treatment symptoms and side effects, it may not be necessary. Rather than seek to find the "perfect question" to use to broach the subject of sexual health with their patients, it may be more important that clinicians find a question that feels natural to them, and therefore, will be most likely to be sustained in their practice. Regardless of the actual question posed, it is essential to underscore that this approach is not only for women who are partnered. We also note that body image and fertility concerns are highly related to sexual health and function for women with cancer, and should be assessed.[86-89]

Conclusions

In sum, it is our belief that sexual health must be incorporated into patient care more systemically. While the majority of comprehensive cancer centers may not have multidisciplinary sexual health programs, there has been enormous emphasis placed on the development and implementation of cancer survivorship care as described in the groundbreaking 2005 Institute of Medicine (IOM) report.[50] Patricia Ganz and others include sexual function as one of the "standard" late effects to be covered in survivorship care planning.[90] As cancer survivorship services continue to expand, hospitals and cancer centers may be able to identify a particular clinician within their institution who is either trained to address sexual issues or who can act as a patient navigator and serve as a resource to liaise patients and survivors with other community or Internet-based resources. It is possible that offering sexual health rehabilitation services of any scale could enhance an institution's reputation by highlighting a commitment to patient-centered, quality-of-life-oriented care. This may be a selling point for patients and thereby add competitive advantage for institutions. Given the burgeoning of cancer survivorship care as well as the growing availability of sexual rehabilitation strategies and interventions, it is high time to close this gap in care and deliver sexual health treatment to the millions of female cancer survivors who need it.

FUNDING SUPPORT

Jennifer Barsky Reese was supported by a Mentored Research Scholar Grant (MRSG-14-031-01 CPPB) from the American Cancer Society and by grant P30 CA006927 from the National Cancer Institute of the National Institutes of Health.

CONFLICT OF INTEREST DISCLOSURES

The authors made no disclosures.

AUTHOR CONTRIBUTIONS

Study conception: **Jennifer Barsky Reese** and **Sharon L. Bober**. Writing-original article: **Jennifer Barsky Reese, Sharon L. Bober**, and **Mary B. Daly**. Writing-review and editing: **Jennifer Barsky Reese, Sharon L. Bober**, and **Mary B. Daly**. Supervision: **Jennifer Barsky Reese**. Funding acquisition: **Jennifer Barsky Reese**.

REFERENCES

1. Sadovsky R, Basson R, Krychman M, et al. Cancer and sexual problems. *J Sex Med*. 2010;7(1 pt 2):349-373.
2. Panjari M, Bell RJ, Burney S, Bell S, McMurrick PJ, Davis SR. Sexual function, incontinence, and wellbeing in women after rectal cancer-a review of the evidence. *J Sex Med*. 2012;9:2749-2758.
3. Panjari M, Bell RJ, Davis SR. Sexual function after breast cancer. *J Sex Med*. 2011;8:294-302.
4. Alder J, Zanetti R, Wight E, Urech C, Fink N, Bitzer J. Sexual dysfunction after premenopausal stage I and II breast cancer: do androgens play a role? *J Sex Med*. 2008;5:1898-1906.
5. Meyerowitz BE, Desmond KA, Rowland JH, Wyatt GE, Ganz PA. Sexuality following breast cancer. *J Sex Marital Ther*. 1999;25:237-250.
6. Burwell SR, Case LD, Kaelin C, Avis NE. Sexual problems in younger women after breast cancer surgery. *J Clin Oncol*. 2006;24:2815-2821.
7. Hendren SK, O'Connor BI, Liu M, et al. Prevalence of male and female sexual dysfunction is high following surgery for rectal cancer. *Ann Surg*. 2005;242:212-223.
8. Krychman ML, Pereira L, Carter J, Amsterdam A. Sexual oncology: sexual health issues in women with cancer. *Oncology*. 2006;71:18-25.
9. Fobair P, Stewart SL, Chang SB, D'Onofrio C, Banks PJ, Bloom JR. Body image and sexual problems in young women with breast cancer. *Psychooncology*. 2006;15:579-594.
10. Nano MT, Gill PG, Kollias J, Bochner MA, Malycha P, Winefield HR. Psychological impact and cosmetic outcome of surgical breast cancer strategies. *ANZ J Surg*. 2005;75:940-947.
11. Gilbert E, Ussher JM, Perz J. Sexuality after breast cancer: a review. *Maturitas*. 2010;66:397-407.
12. Ratner ES, Foran KA, Schwartz PE, Minkin MJ. Sexuality and intimacy after gynecological cancer. *Maturitas*. 2010;66:23-26.
13. Donovan KA, Taliaferro LA, Alvarez EM, Jacobsen PB, Roetzheim RG, Wenham RM. Sexual health in women treated for cervical cancer: characteristics and correlates. *Gynecol Oncol*. 2007;104:428-434.
14. Loaring JM, Larkin M, Shaw R, Flowers P. Renegotiating sexual intimacy in the context of altered embodiment: the experiences of women with breast cancer and their male partners following mastectomy and reconstruction. *Health Psychol*. 2015;34:426-436.
15. Bredart A, Dolbeault S, Savignoni A, et al. Prevalence and associated factors of sexual problems after early-stage breast cancer treatment: results of a French exploratory survey. *Psychooncology*. 2011;20:841-850.
16. Syrjala KL, Kurland BF, Abrams JR, Sanders JE, Heiman JR. Sexual function changes during the 5 years after high-dose treatment and hematopoietic cell transplantation for malignancy, with case-matched controls at 5 years. *Blood*. 2008;111:989-996.
17. Traa M, De Vries J, Roukema J, Den Oudsten BL. Sexual (dys) function and the quality of sexual life in patients with colorectal cancer: a systematic review. *Ann Oncol*. 2012;23:19-27.
18. Reese JB, Finan PH, Haythornthwaite JA, et al. Gastrointestinal ostomies and sexual outcomes: a comparison of colorectal cancer patients by ostomy status. *Support Care Cancer*. 2014;22:461-468.
19. da Silva GM, Hull T, Roberts PL, et al. The effect of colorectal surgery in female sexual function, body image, self-esteem and general health: a prospective study. *Ann Surg*. 2008;248:266-272.
20. Syrjala KL, Roth-Roemer SL, Abrams JR, et al. Prevalence and predictors of sexual dysfunction in long-term survivors of marrow transplantation. *J Clin Oncol*. 1998;16:3148-3157.
21. Humphreys CT, Tallman B, Altmaier EM, Barnette V. Sexual functioning in patients undergoing bone marrow transplantation: a longitudinal study. *Bone Marrow Transplant*. 2007;39:491-496.
22. Watson M, Wheatley K, Harrison GA, et al. Severe adverse impact on sexual functioning and fertility of bone marrow transplantation, either allogeneic or autologous, compared with consolidation chemotherapy alone: analysis of the MRC AML 10 trial. *Cancer*. 1999;86:1231-1239.
23. Moreno KF, Khabbaz E, Gaitonde K, Meinzen-Derr J, Wilson KM, Patil YJ. Sexuality after treatment of head and neck cancer: findings based on modification of sexual adjustment questionnaire. *Laryngoscope*. 2012;122:1526-1531.
24. Low C, Fullarton M, Parkinson E, et al. Issues of intimacy and sexual dysfunction following major head and neck cancer treatment. *Oral Oncol*. 2009;45:898-903.
25. Llewellyn CD, Horne R, McGurk M, Weinman J. Development and preliminary validation of a new measure to assess satisfaction with information among head and neck cancer patients: the Satisfaction with Cancer Information Profile (SCIP). *Head Neck*. 2006;28:540-548.
26. Ganz PA, Desmond KA, Leedham B, Rowland JH, Meyerowitz BE, Belin TR. Quality of life in long-term disease-free survivors of breast cancer: a follow-up study. *J Natl Cancer Inst*. 2002;94:39-49.
27. Ganz PA, Coscarelli A, Fred C, Kahn B, Polinsky ML, Petersen L. Breast cancer survivors: psychosocial concerns and quality of life. *Breast Cancer Res Treat*. 1996;38:183-199.
28. Levin AO, Carpenter KM, Fowler JM, Brothers BM, Andersen BL, Maxwell GL. Sexual morbidity associated with poorer psychological adjustment among gynecological cancer survivors. *Int J Gynecol Cancer*. 2010;20:461-470.
29. Reese JB, Shelby RA, Keefe FJ, Porter LS, Abernethy AP. Sexual concerns in cancer patients: a comparison of GI and breast cancer patients. *Support Care Cancer*. 2010;18:1179-1189.
30. Ribi K, Luo W, Bernhard J, et al. Adjuvant tamoxifen plus ovarian function suppression versus tamoxifen alone in premenopausal women with early breast cancer: patient-reported outcomes in the Suppression of Ovarian Function Trial. *J Clin Oncol*. 2016;34:1601-1610.
31. Francis PA, Regan MM, Fleming GF, et al. Adjuvant ovarian suppression in premenopausal breast cancer. *N Engl J Med*. 2015;372:436-446.
32. Henry NL, Azzouz F, Desta Z, et al. Predictors of aromatase inhibitor discontinuation as a result of treatment-emergent symptoms in early-stage breast cancer. *J Clin Oncol*. 2012;30:936-942.
33. Schover LR, Baum GP, Fuson LA, Brewster A, Melhem-Bertrandt A. Sexual problems during the first 2 years of adjuvant treatment with aromatase inhibitors. *J Sex Med*. 2014;11:3102-3111.
34. Miller SM, Roussi P, Daly MB, Scarpato J. New strategies in ovarian cancer: uptake and experience of women at high risk of ovarian cancer who are considering risk-reducing salpingo-oophorectomy. *Clin Cancer Res*. 2010;16:5094-5106.
35. Holman LL, Friedman S, Daniels MS, Sun CC, Lu KH. Acceptability of prophylactic salpingectomy with delayed oophorectomy as risk-reducing surgery among BRCA mutation carriers. *Gynecol Oncol*. 2014;133:283-286.
36. Jeffery DD, Barbera L, Andersen BL, et al. Self-reported sexual function measures administered to female cancer patients: a systematic review, 2008-2014. *J Psychosoc Oncol*. 2015;33:433-466.
37. Cavallo J. Addressing patients' sexual function throughout survivorship: a conversation with Patricia A. Ganz, MD. http://www.ascopost.com/issues/november-15-2014/addressing-patients-sexual-dysfunction-throughout-survivorship/. Accessed October 5, 2017.
38. Goldfarb SB, Abramsohn E, Andersen BL, et al. A national network to advance the field of cancer and female sexuality. *J Sex Med*. 2013;10:319-325.
39. Bober SL, Sanchez Varela V. Sexuality in adult cancer survivors: challenges and intervention. *J Clin Oncol*. 2012;30:3712-3719.
40. Bober SL, Reese JB, Barbera L, et al. How to ask and what to do: a guide for clinical inquiry and intervention regarding female sexual health after cancer. *Curr Opin Support Palliat Care*. 2016;10:44-54.
41. Candy B, Jones L, Vickerstaff V, Tookman A, King M. Interventions for sexual dysfunction following treatments for cancer in women. *Cochrane Database Syst Rev*. 2016;2:CD005540.
42. Dizon DS, Suzin D, McIlvenna S. Sexual health as a survivorship issue for female cancer survivors. *Oncologist*. 2014;19:202-210.
43. Preti EP, Landoni F, Colombo N, Dizon DS. How to address sexual problems in female cancer patients. *Oncology (Williston Park)*. 2017;31:258-262, 264.
44. Reese JB, Sorice K, Beach MC, et al. Patient-provider communication about sexual concerns in cancer: a systematic review. *J Cancer Surviv*. 2017;11:175-188.
45. Reese JB, Beach MC, Smith KC, et al. Effective patient-provider communication about sexual concerns in breast cancer: a qualitative study [published online ahead of print April 27, 2017]. *Support Care Cancer*. doi: 10.1007/s00520-017-3729-1.

46. Traa MJ, De Vries J, Roukema JA, Rutten HJ, Den Oudsten BL. The sexual health care needs after colorectal cancer: the view of patients, partners, and health care professionals. *Support Care Cancer*. 2014;22:763-772.
47. 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;24:1167-1173.
48. Scanlon M, Blaes A, Geller M, Majhail NS, Lindgren B, Haddad T. Patient satisfaction with physician discussions of treatment impact on fertility, menopause and sexual health among pre-menopausal women with cancer. *J Cancer*. 2012;3:217-225.
49. 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.
50. National Research Council, Institute of Medicine, Ganz PA, eds. From Cancer Patient to Cancer Survivor: Lost in Transition. Washington, DC: National Academies Press; 2006.
51. Carter J, Goldfrank D, Schover LR. Simple strategies for vaginal health promotion in cancer survivors. *J Sex Med*. 2011;8:549-559.
52. Wiggins DL, Wood R, Granai CO, Dizon DS. Sex, intimacy, and the gynecologic oncologists: survey results of the New England Association of Gynecologic Oncologists (NEAGO). *J Psychosoc Oncol*. 2007;25:61-70.
53. Taylor S, Harley C, Ziegler L, Brown J, Velikova G. Interventions for sexual problems following treatment for breast cancer: a systematic review. *Breast Cancer Res Treat*. 2011;130:711-724.
54. Brotto LA, Yule M, Breckon E. Psychological interventions for the sexual sequelae of cancer: a review of the literature. *J Cancer Surviv*. 2010;4:346-360.
55. Scott J, Kayser K. A review of couple-based interventions for enhancing women's sexual adjustment and body image after cancer. *Cancer J*. 2009;15:48-56.
56. Hummel SB, van Lankveld JJDM, Oldenburg HSA, et al. Efficacy of internet-based cognitive behavioral therapy in improving sexual functioning of breast cancer survivors: results of a randomized controlled trial. *J Clin Oncol*. 2017;35:1328-1340.
57. Stute P. Is vaginal hyaluronic acid as effective as vaginal estriol for vaginal dryness relief? *Arch Gynecol Obstet*. 2013;288:1199-1201.
58. Chen J, Geng L, Song X, Li H, Giordan N, Liao Q. Evaluation of the efficacy and safety of hyaluronic acid vaginal gel to ease vaginal dryness: a multicenter, randomized, controlled, open-label, parallel-group, clinical trial. *J Sex Med*. 2013;10:1575-1584.
59. Goetsch MF, Lim JY, Caughey AB. A practical solution for dyspareunia in breast cancer survivors: a randomized controlled trial. *J Clin Oncol*. 2015;33:3394-3400.
60. Juraskova I, Jarvis S, Mok K, et al. The acceptability, feasibility, and efficacy (phase I/II study) of the OVERcome (Olive Oil, Vaginal Exercise, and MoisturizeR) intervention to improve dyspareunia and alleviate sexual problems in women with breast cancer. *J Sex Med*. 2013;10:2549-2558.
61. Basson R. Female sexual response: the role of drugs in the management of sexual dysfunction. *Obstet Gynecol*. 2001;98:350-353.
62. Reese JB, Porter LS, Casale KE, et al. Adapting a couple-based intimacy enhancement intervention to breast cancer: a developmental study. *Health Psychol*. 2016;35:1085-1096.
63. Schover LR, Yuan Y, Fellman BM, Odensky E, Lewis PE, Martinetti P. Efficacy trial of an internet-based intervention for cancer-related female sexual dysfunction. *J Natl Compr Canc Netw*. 2013;11:1389-1397.
64. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders: DSM-IV-TR. Washington, DC: American Psychiatric Association; 2000.
65. Hummel SB, van Lankveld JJ, Oldenburg HS, Hahn DE, Broomans E, Aaronson NK. Internet-based cognitive behavioral therapy for sexual dysfunctions in women treated for breast cancer: design of a multicenter, randomized controlled trial. *BMC Cancer*. 2015;15:321.
66. Barsky Reese J, Porter LS, Regan KR, et al. A randomized pilot trial of a telephone-based couples intervention for physical intimacy and sexual concerns in colorectal cancer. *Psychooncology*. 2014;23:1005-1013.
67. Decker CL, Pais S, Miller KD, Goulet R, Fifea BL. A brief intervention to minimize psychosexual morbidity in dyads coping with breast cancer. *Oncol Nurs Forum*. 2012;39:176-185.
68. Bober SL, Recklitis CJ, Bakan J, Garber JE, Patenaude AF. Addressing sexual dysfunction after risk-reducing salpingo-oophorectomy: effects of a brief, psychosexual intervention. *J Sex Med*. 2015;12:189-197.
69. Brotto LA, Erskine Y, Carey M, et al. A brief mindfulness-based cognitive behavioral intervention improves sexual functioning versus wait-list control in women treated for gynecologic cancer. *Gynecol Oncol*. 2012;125:320-325.
70. Brotto LA, Basson R. Group mindfulness-based therapy significantly improves sexual desire in women. *Behav Res Ther*. 2014;57:43-54.
71. Brotto LA, Chivers ML, Millman RD, Albert A. Mindfulness-based sex therapy improves genital-subjective arousal concordance in women with sexual desire/arousal difficulties. *Arch Sex Behav*. 2016;45:1907-1921.
72. Leiblum SR. Arousal disorders in women: complaints and complexities. *Med J Aust*. 2003;178:638-640.
73. Back AL, Arnold RM, Baile WF, et al. Efficacy of communication skills training for giving bad news and discussing transitions to palliative care. *Arch Intern Med*. 2007;167:453-460.
74. Barclay JS, Blackhall LJ, Tulsky JA. Communication strategies and cultural issues in the delivery of bad news. *J Palliat Med*. 2007;10:958-977.
75. Kissane DW, Bylund CL, Banerjee SC, et al. Communication skills training for oncology professionals. *J Clin Oncol*. 2012;30:1242-1247.
76. Reese JB, Keefe FJ, Somers TJ, Abernethy AP. Coping with sexual concerns after cancer: the use of flexible coping. *Support Care Cancer*. 2010;18:785-800.
77. Park ER, Norris RL, Bober SL. Sexual health communication during cancer care: barriers and recommendations. *Cancer J*. 2009;15:74-77.
78. Ligibel JA, Denlinger CS. New NCCN guidelines for survivorship care. *J Natl Compr Canc Netw*. 2013;11(suppl 5):640-644.
79. National Comprehensive Cancer Network. NCCN Clinical Practice Guidelines in Oncology: Survivorship (Version 1.2017). March 21, 2017.
80. Runowicz CD, Leach CR, Henry NL, et al. American Cancer Society/American Society of Clinical Oncology breast cancer survivorship care guideline. *CA Cancer J Clin*. 2016;66:43-73.
81. Berry DL, Blumenstein BA, Halpenny B, et al. Enhancing patient-provider communication with the electronic self-report assessment for cancer: a randomized trial. *J Clin Oncol*. 2011;29:1029-1035.
82. Hilarius D, Kloeg P, Gundy C, Aaronson NK. Use of health-related quality-of-life assessments in daily clinical oncology nursing practice: a community hospital-based intervention study. *Cancer*. 2008;113:628-637.
83. Bennett MI, Bagnall AM, Jose Closs S. How effective are patient-based educational interventions in the management of cancer pain? Systematic review and meta-analysis. *Pain*. 2009;143:192-199.
84. Kravitz RL, Tancredi DJ, Grennan T, et al. Cancer Health Empowerment for Living without Pain (Ca-HELP): effects of a tailored education and coaching intervention on pain and impairment. *Pain*. 2011;152:1572-1582.
85. Annon J. The PLISSIT model. *J Sex Educ Ther*. 1976;2:1-15.
86. Duffy CM, Allen SM, Clark MA. Discussions regarding reproductive health for young women with breast cancer undergoing chemotherapy. *J Clin Oncol*. 2005;23:766-773.
87. Fingeret MC, Teo I, Epner DE. Managing body image difficulties of adult cancer patients: lessons from available research. *Cancer*. 2014;120:633-641.
88. Ben Charif A, Bouhnik AD, Rey D, et al. Satisfaction with fertility- and sexuality-related information in young women with breast cancer-ELIPPSE40 cohort. *BMC Cancer*. 2015;15:572.
89. Male DA, Fergus KD, Cullen K. Sexual identity after breast cancer: sexuality, body image, and relationship repercussions. *Curr Opin Support Palliat Care*. 2016;10:66-74.
90. Ganz PA. Survivorship: adult cancer survivors. *Prim Care*. 2009;36:721-741.