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The opinions and practices of providers toward the sexual issues of cervical cancer patients undergoing treatment

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HIGHLIGHTS

- Most patients have sexual dysfunction, but few providers receive training in this.
- Most providers want to receive more education about sexual dysfunction issues.
- Non-trained providers agree that information on sexual dysfunction is lacking.
- Despite a lack of training, most providers offer advice about sexual function.
- International providers are more uncomfortable discussing sexual dysfunction.

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ABSTRACT

Objectives. Cervical cancer and its treatments impair women's sexual function. These complications may or may not be regarded when clinicians develop treatment plans. We aim to investigate the considerations of providers toward the sex life of cervical cancer patients.

Methods. All members of the Society of Gynecologic Oncology received a questionnaire assessing their opinions and practices toward specific questions regarding the sexual functioning of their patients.

Results. Of the 124 providers who completed the survey, the majority were Board Certified Gynecologic Oncologists (56%) with an average of 15 years in training. Approximately 23% received training about sexual dysfunction. Providers without formal training were more likely to agree that: "Information regarding sexual function in patients undergoing treatment for cervical cancer is lacking" ($p = 0.02$). Providers with over 10 years of experience were more likely to agree that "sex is private and discussing it with patients will interfere with our provider-patient relationship" ($p = 0.03$). International clinicians were more likely to agree that: "I feel uncomfortable initiating discussions regarding sexual function with patients" ($p = 0.03$), "Sex is private and discussing it with patients will interfere in our provider-patient relationship" ($p = 0.02$), and "If a patient has a sexual problem, they will raise the subject" ($p = 0.009$).

Conclusions. Years of clinical experience, provider age, a history of training on regarding sexual dysfunction and an international setting of practice affect providers' opinions and practices toward sexual issues of cervical cancer patients. More formal, relevant training regarding sexual dysfunction is warranted for clinicians who treat cervical cancer patients.

1. Introduction

Cervical cancer and its treatments are known to negatively impact the quality of life of patients and are specifically known to impair sexual function. Treatments including vaginal brachytherapy and pelvic radiation may cause dyspareunia, lymphedema, vaginal stenosis and fistulas, premature menopause and infertility [1]. Surgical management with open or laparoscopic radical hysterectomy with pelvic lymphadenectomy may lead to vaginal shortening and inelasticity, decreased vaginal lubrication and decreased sexual arousal [2]. Multiple studies demonstrate the long-term effects these modalities have on sexuality and note that they may be present for several years following treatment [1,3]. These complications may or may not be considered by providers or patients when deciding treatment plans. Contemporary literature emphasizes these issues and attempts to invoke a responsibility amongst providers who treat patients with gynecologic cancers to prioritize complications of sexual dysfunction [4,5].

As the 5-year survival rate of cervical cancer patients is high [6], and the majority of patients diagnosed are of reproductive age, consideration

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to a patient's quality of life is crucial. Moreover, sexuality endures across an individual's lifespan and sexual activity occurs despite one's worsening medical conditions and persistent negative side effects of treatment. Presently, several studies assess the sexual functioning of cervical cancer patients after treatment [7,8] and examine the differences in sexual functioning according to treatment modality [9–11]. Recent literature further acknowledges the inadequate attention given to gynecologic cancer patients' sexual issues [12,13]. However, few researchers have focused on the opinions and practices of clinicians toward the sex life of patients. We aim to investigate the considerations and practices of providers toward the sex life of cervical cancer patients undergoing treatment.

2. Methods

We designed an electronic questionnaire that assessed providers' demographics and their opinions toward specific questions regarding the sexual functioning of their patients and how these opinions affect their clinical practice (S1). The survey was modeled from one used by Wang et al. to investigate the attitudes and behaviors of Radiation Oncologists in China toward the sexual issues of their cervical cancer patients [14]. While Wang et al. performed an internal pilot study for internal validity testing, our survey did not undergo this. Our study design was approved by the IRB at University of Texas Southwestern Medical Center under the category of "Exempt Review."

The first part of the survey requested demographic information including the provider's age, marital status, location of training and practice, clinical practice setting, number of cervical cancer patients treated annually and whether or not they have specifically received training pertaining to sexual dysfunction. The second portion of the survey asked for responses to several statements regarding opinions and attitudes toward the sexual functioning of their patients, such as, "a patient's concern regarding sexual function following treatment will often guide the treatment chosen for them." Responses were answered using a 5-point Likert scale format, ranging from "very much disagree" to "very much agree." The third portion asked clinicians to list advice they have given patients regarding sexual activity following treatment with chemoradiation and surgery in an open format.

The survey was electronically sent via the Survey Monkey website to all members of the Society of Gynecologic Oncology a total of three times over a span of 12 weeks. Providers included both national and international Board Certified and Board Eligible Gynecologic Oncologists, Fellows of Gynecologic Oncology, Physician Assistants, Clinical Nurse Specialists, Nurse Practitioners and OB/GYN Residents. All responses were collected anonymously and only completed surveys were included in the data set. Surveys were considered complete if over 75% of the questions were answered. Responses were compared by various demographic factors as covariates using a Fisher's exact test.

The primary rationale for the chosen covariates were based upon those used in the Wang et al. study that investigated the attitudes and behaviors of Radiation Oncologists in China toward the sexual issues of their cervical cancer patients. Selected covariates include age, sex, professional level, history of receiving specific training in sexual dysfunction, hospital properties (integrated hospital vs cancer hospital), time since qualification (>5 years or <5 years), and number of cancer patients treated annually (>50 patients for <50 patients). Apart from gender, we studied these covariates as well, and expanded our study to include location of practice (national vs international).

3. Results

Out of the 1955 members of the SGO, a total of 141 responses were collected over a span of 12 weeks. After excluding incomplete surveys, 124 completed surveys were used and providers' demographic information was obtained (Table 1). The majority of respondents were Board Certified Gynecologic Oncologists (56.4%), Board Eligible Gynecologic Oncologists (12.9%) and Gynecologic Oncology Fellows (12.1%). The average age of respondents was 46 years and the majority was married (87.6%). Respondents reported a wide range of clinical experience (range 1–42 years) with an average number of years in practice or training of 15.3 years. The majority of providers works in a Cancer Hospital setting (68.3%) and treats fewer than 50 cervical cancer patients annually (73.7%). Approximately 10.5% of clinicians trained or practice internationally. International settings included: Argentina, Australia, Brazil, Canada, China, Greece, Norway, Puerto Rico, Turkey, and the United Kingdom.

Table 1
Demographic characteristics of providers.

	Providers
Age (years)	
Mean (range)	46.2 (28–78)
Marital Status, n (%)	
Married	106 (87.6)
Single	15 (12.4)
Time in practice (years)	
Mean (range)	15.3 (1–42)
Training location, n (%)	
United States	111 (89.5)
International	13 (10.5)
Clinical Position, n (%)	
Board Certified Gyn Oncologist	70 (56.4)
Board Eligible Gyn Oncologist	16 (12.9)
Fellow of Gyn Oncology	15 (12.1)
Physician Assistant	8 (6.5)
Nurse Practitioner or Clinical Nurse Specialist	7 (5.6)
Resident	5 (4.0)
Other	3 (2.4)
Training for sexual dysfunction, n (%)	
Yes	29 (23.4)
No	95 (76.6)
Clinical Setting, n (%)	
Cancer Hospital	82 (68.3)
Integrated Hospital	20 (16.7)
Private Practice	18 (15.0)
Patients treated annually, n (%)	
<50 patients	87 (73.7)
>50 patients	24 (20.3)
>100 patients	7 (5.9)

Of the 124 providers who submitted complete responses, 23.4% reported receiving training about sexual dysfunction, and 92.7% have been consulted by patients for issues pertaining to sexual function. When questioned, "what percentage of your patients request advice or treatment for sexual issues," the average response was 30% of patients, with a range of 5–99%. Additionally, when asked, "what percentage of your patients face sexual function issues following treatment," the average overall response was 53% of patients, with a range of 5–100%. Approximately 71.8% of all providers somewhat or strongly agreed that information regarding sexual functioning is lacking for patients undergoing treatment for cervical cancer, and 71.8% of providers somewhat or strongly agreed to the statement, "I am interested in receiving education about different treatment modalities and their effect on the sexual function of cervical cancer patients."

When queried, "in what situations will you provide guidance to patients about their sexual issues," 64.6% of providers responded "I provide guidance whether or not the patients or their family asks me questions" and 35.3% of providers responded, "only if the patient or their family asks me questions"; no providers elected the statement "I typically do not provide guidance regarding sexual issues to patients."

Responses to various statements of providers' attitudes and opinions toward their patients' sexual issues were then compared by different demographic characteristics. Compared to those who received formal training about sexual dysfunction, providers without training were more likely to somewhat or strongly agree that: "Information regarding sexual function in patients undergoing treatment for cervical cancer is lacking" ($p = 0.02$) (Table 2). In comparing attitudes toward these

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