Clinical and Translational Radiation Oncology 21 (2020) 120–126

Contents lists available at ScienceDirect

Clinical and Translational Radiation Oncology

journal homepage: www.elsevier.com/locate/ctro

Original Research Article

Do radiation oncologists talk about sexual health and dysfunction with their cancer patients? Results of the igls-vienna-sexmed-survey

E. Bräutigam [a,*], A. Schratter-Sehn [b], A. Kottmel [c], J. Bitzer [d], B. Teleky [e], L. Ucsnik [e]

[a] Department for Radiation-Oncology, Ordensklinikum Barmherzige Schwestern, Linz, Austria
[b] Institute for Radiation-Oncology, Kaiser Franz Josef Spital, SMZ-Süd, Vienna, Austria
[c] Private Practice for Gynecology and Sexual Medicine, Vienna, Austria
[d] Private Practice for Gynecology, Basel, Switzerland
[e] Department for Visceral Surgery, Medical University Vienna, Austria

ARTICLE INFO

Article history:
Received 19 June 2019
Revised 12 January 2020
Accepted 24 January 2020
Available online 31 January 2020

Keywords:
Sexual medicine
Sexual health
Long term side effects
Radiation Oncology

ABSTRACT

Background and purpose: The aim of this survey was to invite radiation oncologists to self-assess whether sexual health care and sexual dysfunction are an issue in daily routine.
Materials and Methods: At the annual congress of the Austrian Society of Radiation Oncology in 2017 doctors were asked about their care for sexual health in cancer patients by using questionnaires. No exclusion criteria were employed. Forty-one questionnaires were answered and statistically analysed so 44.5% of doctors participated.
Results: Only 4.9% of the participants self-assessed to routinely explore sexual health issues in 61–80% of their patients. Thirty-one point seven percent of the doctors suspected sexual problems in about half of their patients but did not raise the issue. The most common reason for not raising sexual issues by the patients was assumed by the doctors "other problems are more important" (73.2%), followed by "lack of time" (36.6%). Participants were also asked about additional medical qualifications: none of the physicians had training in sexual medicine.
Conclusion: The main reason for not talking about sexual problems was the impression of the participating doctors that other problems were more important for the patients. Another reason for not bringing up the topic of sexual issues by the patients was assumed by the doctors: lack of time. As doctor shortage is a problem in the observed country other kind of networks and counselling possibilities should be evaluated. An interesting finding was that survey participants show a higher awareness for male sexual problems than for female issues.

1. Introduction

An estimated 17 million patients are diagnosed with cancer worldwide annually [1]. The majority of these patients will become long-term cancer survivors [2]. Increasing survival rates of cancer patients lead to also focus on aspects of quality of life, due to the long-term effects of cancer and its treatment.

Quality of life is a multidimensional construct, incorporating at least physical, psychological, sexual and social well-being [3]. Prevalence of sexual dysfunction after cancer therapy ranges from 40 to 100% in both sexes, dependent on kind of cancer and therapy [4–6]. Common problems include disorders of sexual response and disorders of sexual desire and motivation. Patients also report reduced sexual interest and problems with intimacy [7]. Neglecting these issues may contribute to relationship difficulties and could impact other aspects of patients' lives. As radiotherapy is an important part of therapy concepts in all cancer diseases elucidation about sexual issues and knowing about patients' sexual problems should be the standard for physicians due to WHO's bio-psycho-social concept of health as well as the Declaration of Sexual Rights by the World Association for Sexual Health [8,9].

The aim of this survey was to invite radiation oncologists to self-assess whether sexual health care and sexual dysfunction are an issue in daily routine of Austrian radiation oncologists. Further this survey aims to evaluate the extent physicians' estimate to talk about sexual issues with their patients in an oncological setting. It was also part of the survey to get information about the sexual health care provided and health care structures existing as well as training and education in sexual medicine of the physicians.

* Corresponding author at: Seilerstätte 4, 4010 Linz, Austria.
E-mail address: Elisabeth.braeutigam@ordensklinikum.at (E. Bräutigam).

https://doi.org/10.1016/j.ctro.2020.01.005

2. Materials and Methods

This survey of the Igls-Vienna-SexMed-Survey was conducted in cooperation from the Medical University Vienna, University Clinic for Surgery, Department for Visceral-Surgery with the Austrian Society for Radiation Oncology. Residents and consultants were asked about their care for sexual health and sexual dysfunction in male and female cancer patients. No exclusion criteria were employed. Ninety-two doctors participated in the annual congress of the Austrian Society of Radiation Oncology in 2017, 63 questionnaires were returned, 41 of these were answered.

The questionnaire is shown in Table 1. It is 3-parted and consists of part A (sexual health care), part B (health care structures provided) and part C (participant's professional profile) and included multiple-choice answers as well as open answers for demographical belongings.

2.1. Ethical approval was given by the Medical University Vienna, 1360/2017

Final data set was forwarded to the statistical section of the Vienna Medical University prior to the analyses. Absolute and relative frequencies of the chosen answers were then visualized with barcharts. Ordinal variables were compared between 2 groups with the Wilcoxon rank sum test, between 3 or more groups with the Kruskal Wallis test. To estimate the correlation between two ordinal variables Kendall's tau was calculates, and to document the relationship between categorical variables X^2-test was used. No correction for multiple testing was applied: Significance level was set to $\alpha = 0.05$ for all tests. Therefore all presented p-values have to be interpreted with caution and hypotheses generating only. No statistical test were calculated in case of small sample sizes (<4 per group in a 2 group comparison, less than three times the number of groups in the comparison of 3 or more groups, and <10 observations for ordinal variables). In these cases only descriptive statistics are shown and data is visualized with barcharts.

3. Results

At the Austrian annual meeting in 2017 92 physicians working in the field of radiation oncology participated and got a questionnaire. Forty-one questionnaires were filled in and dropped in in the prepared boxes. So 44.5% of radiation oncologists at the meeting participated.

3.1. Part A sexual health care

Only 4.9% (n = 2) of the participants self-assessed to routinely explore sexual health issues in 61–80% of their patients and 46.3% (n = 19) asked <1 in 5 patient about their sexual issues (Fig. 1). Gender, age, years of clinical experience and religion of the doctors had no significant impact on the participants actively talking about sex.

The majority of the participants (75.6%, n = 31) estimated that <1 in 5 of the patients raised the issue on their own. Gender, age, years of clinical experience and religion of the doctors had no significant impact.

Thirty-one point seven (n = 13) percent of the doctors suspected sexual problems in about half of their patients (answer possibility 41–60%) but did not raise the issue. The most common reason for not raising sexual issues by the patients was assumed by the doctors "other problems are more important" (73.2%), followed by "lack of time" (36.6%). The assumed reasons for not raising the issue were shown in Fig. 2. The average of the physicians reported to feel comfortable in raising the issue: in an analogue scale from 0 = absolute no problem to 100 = extremely difficult, the mean was 29.1.

Asked about female sexual issues and problems, the participants quoted loss of libido (52.9%) as the most prevalent sexual problem followed by difficulties to reach orgasm in spite of sexual arousal (50%) and lack of arousal during sexual stimulation (32.4%). The most supposed sexual problem of the male patients was increased need of penis stimulation (75%), followed by erectile dysfunction (65.6%) and loss of libido (40.6%).

The Participants were asked in which situation patients should be actively asked about their sexual health. Given multiple choice-options the majority of the participants (75.6%) responded that in case of specific diseases patients should be asked about sexual problems, followed by the setting of control-examinations (61%) and before surgery (56.1%). Doctors were also asked to score how relevant sexuality and intimacy is in their working field. In an analogue scale from 0 = not relevant to 100 = extremely relevant, the mean was 50.

3.2. Part B sexual health care structures

The majority of doctors (75.6%, n = 32) assessed that at their working-places no specific appointments were offered for patients for consultation in case of sexual problems. Forty-six point three percent of the participants proposed referrals (urology, gynaecologists, psychotherapy). Information about physiological sexual function was provided by 19.5% of the participants and 19.5% of the participants offered psychotherapy by themselves'. Seventeen point one percent of the doctors assessed to offer to evaluate medication causing sexual function and 14.6% of the participants provided hormone therapy. Only 3.7% of the participants assumed that they were able to help their patients in 81–100% and also 3.7% reported that they were not able to help the patients (0%).

Forty-six point five (n = 19) percent of the doctors responded that their patients followed their advice for further sexual assessment or therapy "not frequently". The most common reason for reducing the treatment's success was assessed: age of the patients (41.5%), lack of competence for adequate therapy (36.6%) and lack of patients' motivation for therapy (31.7%). Nineteen point five percent stated not to know where the patients to refer in case of sexual health issues.

3.3. Part C participants' professional profile

Of the respondents 53.7% (n = 22) were female, 22% (n = 9) were male and 24.3% (n = 10) were missing. This survey's participants were experienced radiation oncologists. The majority of doctors (24.4%, n = 10) were between 40 and 50 years old and 24.4% (n = 10) had over 20 years of professional experience. Seventeen point on percent (n = 7) of the participants worked in university hospital, 46.4% (n = 19) in a public hospital. The general characteristics of the respondents are summarized in Table 2.

Participants were also asked about additional medical qualifications and trainings: none of the physicians had training in sexual medicine. Only 2 doctors had extra training in Psychotherapeutic Medicine an, 3 in pain therapy and 1 in Psychosocial Medicine. Details are shown in Table 3.

4. Discussion

For the first time this survey draws a rough picture of sexual health care by Austrian radiation oncologists. The results demonstrate a low rate of only 4.9% of survey-participants assessing to address in 61–80% of the patients sexual health care in daily routine in Austria. No published data were found for radiation oncol-

Table 1
Self-administered questionnaire.

Questions	Answer options
1 What percentage of patients do you actively ask about sexual issues/ sexual problems?	0%-1–20%-21–40%-41–60%-61–80%-81–100%
2 What percentage of your patients raise sexual problems on their own?	0%-1–20%-21–40%-41–60%-61–80%-81–100%
3 In what percentage of patients do you suspect some concealed sexual problems without addressing them actively?	0%-1–20%-21–40%-41–60%-61–80%-81–100%
4 What are the reasons why you don't get more information from your patients about sexual problems or issues related to the disease treated?	Lack of time for asking actively, other problems more important, language barrier, embarrassing topic, age, religion, culture, other topic. . .
5 in what situation do you think, should actively asked about sexual issues or problems?	Screening-program, in certain diagnoses, before surgery, after surgery, medical check-ups, cures, rehabilitation-programs, menopause/andropause, anticoagulation-therapy and check-ups, pain-therapy and check-ups, internal check-ups (cardiology, angiology, endocrinology.), others to be specified, surgery
6 How easy is it for you to actively ask about sexual health issues and problems?	Visual analogue scale (0 = absolute no problem, 100 = extremely difficult)
7 Please, do assume the frequency of sexual issues and problems in your female patients: a) Loss of libido/ interest b) Lacking arousal during sexual stimulation or activity c) Difficulties to reach orgasm in spite of sexual arousal d) Pain in genital area during or after sexual intercourse e) Vaginism f) Constant, unwanted sexual arousal g) Other, to be specified	1 = > 90%, 2 = > 80%, 3 = > 60%, 4 = > 40%, 5 = > 20%, 6 = < 20%
8 Please, do assume the frequency of sexual issues and problems in your male patients: a) Loss of libido/ interest b) Increased need of stimulation of the penis c) Erectile dysfunction – difficulties to have a hard erection and keep it long enough for sexual intercourse d) Difficulties to reach orgasm or ejaculate e) Retrograde ejaculation f) Ejaculation praecox (<2 Min) g) Size or form of penis h) Pain during or after sexual intercourse i) Other, to be specified	1 = > 90%, 2 = > 80%, 3 = > 60%, 4 = > 40%, 5 = > 20%, 6 = < 20%
9 Do you offer appointments specifically to talk about sexual problems a) University hospital b) Private hospital c) Public hospital d) Practice	Multiple answers possible, Yes, no
10 Do you refer patients in case of sexual problems to experts in other disciplines/ professions? a) Internal medicine (cardiology, angiology, endocrinology) b) Physical therapy/ pelvic floor c) Gynecology and obstetrics d) Urology e) Andrology f) / g) Psychosomatic h) Psychotherapy i) Psychiatry or neurology j) Consultant for continence k) Sexual medicine l) Other, please specify m) Surgery	Multiple answers possible, Yes, no
11 What kind of further sexual health care do you offer? a) Information on physiologic sexual function b) Sexual medicine c) Sexual therapy d) Couple talk e) Couple therapy f) Referral to specialist g) Psychotherapy h) Hormone-therapy (gynecology, andrology, endocrinology) i) Anticoagulation therapy j) Pain therapy k) Evaluation of drugs, causing sexual dysfunction l) Other medication (antidepressants) m) Other, please specify n) None	Multiple answers possible, Answer to be crossed
12 How often do patients accept these propositions?	Always, often, sometime, rarely, never
13 What percentage of patients with sexual problems do you think you can help?	0%-1–20%-21–40%-41–60%-61–80%-81–100%
14 What are the main reasons for failure to successfully treatment? a) Patients' age b) Patients' religion c) Patients' culture	Multiple answers possible, answers to be crossed

Table 1 (*continued*)

Questions	Answer options
d) Patients' nationality e) Own lack of timePatients' lack of motivation for therapy f) Lack of professional sexual medicine competence needed for therapy g) No improvement after therapy h) No adequate specialist for referral known (missing sexual health care network) i) Other, please specify j) Own age k) Own religion l) Own culture m) Own nationality's n) Patients' sexual orientation o) Own sexual orientation	
15 Relevance of the topic, sexuality and intimacy" in your professional field	Visual analogue scale (0 = not relevant at all, 100 = extremely relevant)
16 Sex	Male, female
17 Religion	To be named
18 Region / Nation	To be named
19 Age	<20y, 20-30y, 30-40y, 40-50y, 50-60y, >60y
20 Medical qualification	Diplomas, certificates of the Austrian Chamber of Doctors, 1–2 day courses in sexual medicine, ESSM-Fellowship
21 Place of work	University hospital, private hospital, public hospital, practice
22 Clinical experience (radio-oncology)	<2y, 2-5y, 5-10y, 10-20y, >20y

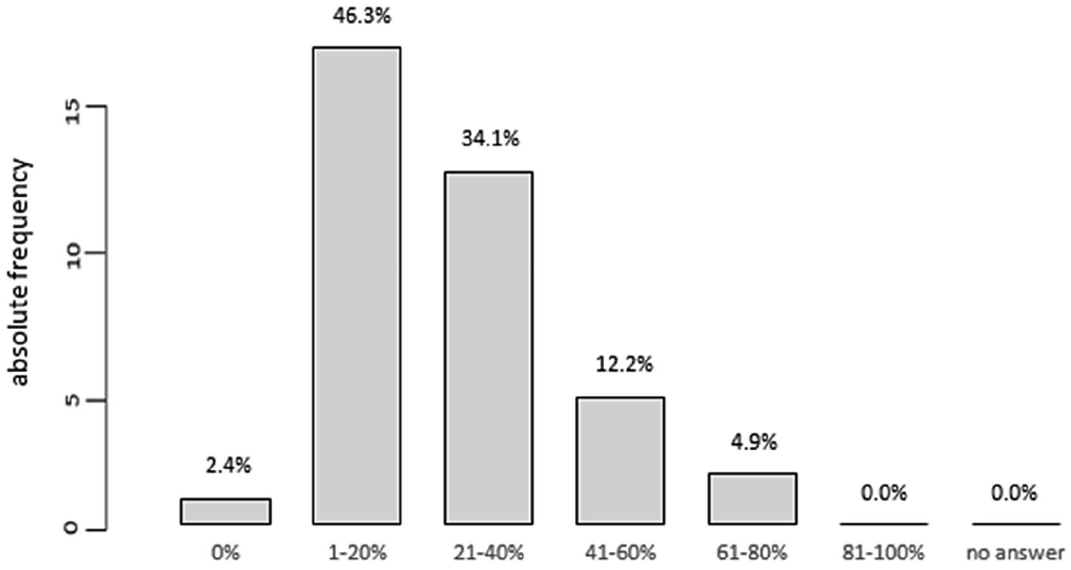

Fig. 1. Frequency of doctors asking patients about sexual health issues.

ogy settings so a bench marking of our data was not possible. In contrast to the field of radiation oncology, a United States study showed that 40% of gynecologists reported routinely addressing sexual problems [10]. Another study evaluating gynecologists in Switzerland reported low rates as well: 7.9% of the participants actively asked their patients [11].

The main reason for not talking about sexual problems was the impression of the participating doctors that other problems were more important for the patients. Being diagnosed and starting cancer treatment, the focus for both, the patient and radiation oncologist, could be on ensuring and prolonging their survival. Despite improvements in chemotherapy regimens and more focused radiotherapy, cancer treatment can lead to long term side effects that can manifest as sexual dysfunction. As cancer survival rates are rising, quality of life and long-term side effects of therapies become more important. Cancer diagnosis and therapy might permanently change the body image and cause anxiety or shame. These changes have a negative impact on sexual satisfaction. Patients tend to avoid sexual activities as a result of their declining physical attraction [12,13].

Side effects of radiotherapy can have an impact on sexual health and problems in cancer patients. For example erectile dysfunction is common after the treatment of prostate cancer including radiotherapy and prostatectomy due to impaired nerval function. The probability of erectile dysfunction is increased when endocrine therapy is added to radiotherapy [14–20]. This survey's participants rated these sexual problems as highly frequent in the male patient population. Interestingly, doctors assume sexual health issues in the patients treated but do not address the topic actively.

Patients suffering from rectal or anal cancer who undergo pre-, postoperative or definitive radiotherapy and surgical procedures such as total mesorectal excisions, TME, develop problems with orgasmic function, erectile dysfunction and pain during intercourse [21–25].

It is also documented in literature that a third of head and neck cancer patients report reduced sexual interest or enjoyment after

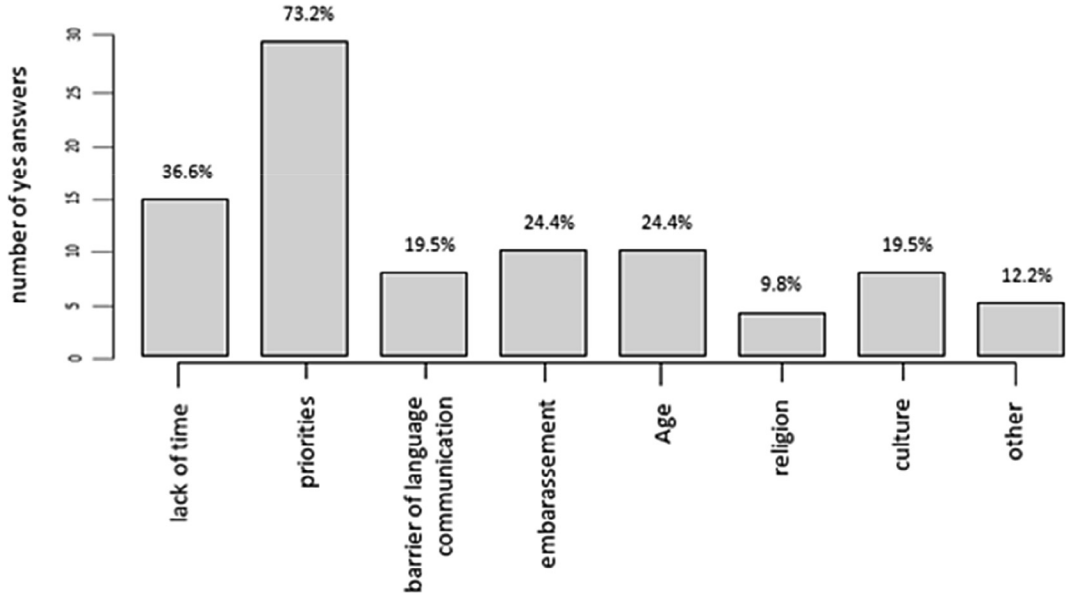

Fig. 2. Reasons why patients do not bring up sexual issues (multiple answers possible).

Table 2
General characteristics of survey participants (n = 41).

		n	%
Gender	Female	22	53.6%
	Male	9	22%
	missing	10	24.4%
Religion	Catholic	17	41.5%
	Protestant	1	2.4%
	Orthodox	1	2.4%
	none	8	19.5%
	missing	14	34.2%
Nationality	Austria	20	48.8%
	Germany	8	19.5%
	missing	13	31.7%
Age (years)	< 20 years	0	0%
	20–30 years	2	4.9%
	30–40 years	8	19.5%
	40–50 years	10	24.4%
	50–60 years	9	22%
	>60 years	1	2.4%
	missing	11	26.8%
Working situation	University hospital	7	17.1%
	Private hospital	1	2.4%
	Public hospital	19	46.4%
	Practice	6	14.6%
	missing	8	19.5%
Professional experience	<2years	1	2.4%
	2–5 years	6	14.6%
	5–10 years	7	17.1%
	10–20 years	5	12.2%
	>20 years	10	24.4%
	missing	12	29.3%

Table 3
Additional training of the participants.

		n	%
Additional training	Acupuncture	4	9.8%
	Complementary Cancer Therapy	2	4.9%
	Fasting FX Mayr	1	2.4%
	Nutrition Medicine	1	2.4%
	Gerontology	1	2.4%
	Clinical Studies' Consultant	4	9.8%
	Cure, Preventive Medicine	1	2.4%
	Wellness	1	2.4%
	Neural Therapy	6	14.6%
	Emergency Medicine	4	9.8%
	Palliative Medicine	1	2.4%
	Psychosocial Medicine	1	2.4%
	Psychotherapeutic Medicine	2	4.9%
	School Doctor	1	2.4%
	Pain Therapy	3	7.3%
	Sexual Medicine (Certificate)	0	
	Sexual Medicine (Diploma)	0	
	Courses Sexual Medicine	0	
	ESSM Fellowship	0	

treatment and 25% of the patients have problems with intimacy [7,26]. Related issues were published for gynecological cancer [27–29].

Breast cancer is the most frequently diagnosed female cancer [30]. Most women (50–75%) diagnosed with breast cancer report difficulties in sexual function [31–34]. The majority of breast cancer patients have to undergo radiotherapy after breast conserving surgery. Therefore, it is remarkable that the awareness for female sexual issues in this survey is quite low.

No published data were found for sexual functions and side effects after radiotherapy for gliomas. An evaluation of sexual life after surgery without radiotherapy for low-grade glioma was published. Authors reported about common sexual dysfunction in this population [35].

An interesting finding is that survey participants show a higher awareness for male sexual problems than for female issues. All the more this fact is notable as the majority of participating physicians was female.

As doctors working in this field of medicine know the data cited it is remarkable that expected side effects are not routinely part of an oncological assessment and elucidation. As cancer is noticed as life-threatening disease by the patients the focus is on severe side effects and impacts of therapy protocols in the front. Cancer survival rates are rising and so long term side effects causing sexual problems can have a greater impact in quality of life of the patients. So it is also important to know all late side effects that might occur to give consent to the planned therapy. If doctors do

not address sexual issues in elucidation patients could get the impression that it must not be of significant and durable concern. Therefore patients are cautious about bringing up sexual problems because they are uncertain about its validity in case their oncologist does not raise the issue.

Another reason for not bringing up the topic of sexual issues by the patients was assumed by the doctors: lack of time (36.6%). As doctor shortage is a problem in the observed country other kind of networks and counselling possibilities should be evaluated. An available network of physicians, psychotherapists, physical therapist and nurses working in the field of sexual medicine should be established and provided for all kind of cancer diagnoses. All this different professionals should integrate sexual health aspects in their daily routine. The topic of sexual health care cannot be taken care of by sexual medicine professionals only and are not only topic of psychiatrists, psychotherapists or psycho-oncologists who cannot professionally inform about radio-therapy concepts as well as short- and long-term side effects, and their bio-psycho-social impacts on sexuality. The patients suffering from sexual dysfunction should be considered for further sexual health diagnosis and therapy. Neglecting to talk about sexual problems and side effects might contribute to further patient-relationship difficulties and have an impact on other social aspects of patients' life [36].

Participants also rated barriers of age, religion and culture of the patients as the main reasons why treatment of sexual problems could fail. More than one third (36.6%) of doctors reported that they lack competence in sexual medicine for adequate therapy. As none of the survey participants had training in Sexual Medicine the outcome of this study is comprehensive.

Considering the barriers and lack of time to discussing sexual issues, an easily administered and valid scale may be useful as a screening tool to find affected patients. Sexual medicine should be more integrated in oncological curricula in order physicians get more knowledge and certainty in managing basic sexual topics in their field and therefore feel more comfortable with sexual issues and gain more routine.

This study has some limitations, especially selection bias resulting from the use of a self-administered questionnaire. Furthermore, the data is estimated percentages but not epidemiological based data by analyzing cases documented. One of the strengths of this survey is the relatively high response rate of 44.5%.

Our data report about Austrian doctors working in the field of radiation oncology and their handling of sexual issues. There are no published data for the rest of Europe. It would be of great interest to conduct this survey in other European countries to gain information if the situation there is related to our findings.

5. Compliance with ethical standards

Ethical approval by medical university, survey without patients data.

6. Research involving human participants and/or animals

This article does not contain any studies with animals or patients performed by the authors.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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