DOI:10.31557/APJCC.2026.11.5.699

RESEARCH ARTICLE

Attitudes and Practices of Oncology Nurses Toward Sexual Health Assessment in Cancer Patients: A Cross-Sectional Multicenter Study

Azam Heidarzadeh[1], Batool Tirgari[2], Asma Ghonchehpour[3], Atefeh Ahmadi[4], Mansooreh Azzizadeh forouzi[5]*

[1]Faculty Member, Department of Medical Surgical Nursing, School of Nursing and Midwifery, Geriatric Care Research Center, Rafsanjan university of Medical Sciences, Rafsanjan, Iran. [2]Professor of Nursing, Nursing Research Center, Kerman University of Medical Sciences, Kerman, Iran. [3]Reproductive and Family Health Research Center, Kerman University of Medical Sciences, Kerman, Iran, Kerman, Iran. [4]Student Research Committee, Kerman University of Medical Sciences, Kerman, Iran Kerman, Iran. [5]Neuroscience Research Center, Institute of Neuropharmacology, Kerman University of Medical Sciences, Medical University Campus, Haft-Bagh Highway, Kerman, Iran.

Abstract

Introduction: Sexual health is an important but often overlooked aspect of cancer care. Oncology nurses play a key role in addressing patients' sexual health concerns, yet assessment remains limited. This study aimed to examine oncology nurses' attitudes and practices toward sexual health assessment in cancer patients. **Materials and Methods:** This is a descriptive cross study. Ninety-three oncology nurses from hospitals in southeastern Iran were recruited using convenience sampling. Data were collected using a validated questionnaire assessing attitudes and practices toward sexual health assessment (Cronbach's alpha = 0.87). Statistical analyses included independent t-tests, Pearson correlation coefficients, and one-way ANOVA to explore associations between nurse characteristics and attitudes/practices. **Results:** Nurses reported moderately positive attitudes toward sexual health assessment (mean = 42.33 ± 7.39; range 0–60), while actual practice was limited (mean = 58.59 ± 3.90; range 0–100). Attitude scores were significantly associated with workplace location ($p = 0.0001$) and years of work experience ($p = 0.03$). These findings indicate a notable gap between nurses' attitudes and their clinical engagement in sexual health, with potential implications for the comprehensive care of female cancer patients. **Conclusion:** Despite generally positive attitudes, oncology nurses' engagement in sexual health assessment remains suboptimal, highlighting a gap between knowledge and practice. Addressing this gap is critical to promoting holistic care that includes women's sexual health. Relevance to Clinical Practice: Integrating structured sexual health education into nursing curricula and ongoing professional development can enhance nurses' competence, improve assessment of sexual health in cancer care, and support the delivery of comprehensive care for women with cancer.

Keywords: Attitude to Health- Cancer- Cross-Sectional Studies- Holistic Health- Iran- Nursing Assessment- Nursing Care

Asian Pac J Cancer Care, **11 (5)**, 699-705 Submission Date: 05/10/2026 Acceptance Date: 07/23/2026

Introduction

Cancer-related sexual dysfunction may arise directly from specific treatments such as chemotherapy, pelvic radiotherapy, hormone therapy, and surgical interventions, which can disrupt sexual function, fertility, and body image [1, 2]. Cancer-related sexual dysfunction may arise directly from specific treatments such as chemotherapy, pelvic radiotherapy, hormone therapy, and surgical interventions, which can disrupt sexual function, fertility, and body image. For example, 30 to 70% of women with cancer report symptoms such as vaginal dryness, dyspareunia, premature menopause, and decreased libido [3], while over 70% of men undergoing cancer treatments

Corresponding Author:
Mansooreh Azzizadeh forouzi
Neuroscience Research Center, Institute of Neuropharmacology, Kerman University of Medical Sciences, Medical University Campus, Haft-Bagh Highway, Kerman, Iran.
Email: forozy@gmail.com

experience problems such as erectile dysfunction and reduced sexual desire [4].

Since the 1970s, sexual health has been recognized as a vital aspect of healthcare and is now considered an essential component of nursing practice [5, 6]. Beyond the absence of disease, sexual health encompasses physical, emotional, psychological, and social well-being, as well as individuals' rights to safe and consensual sexual experiences [7, 8].

Given the continuous contact nurses have with patients, they play a vital role in addressing the sexual health needs of cancer patients [9]. However, sexual health care should be viewed as a shared, interdisciplinary responsibility involving nurses, oncologists, psychologists, and other members of the oncology care team. However, evidence shows that although many nurses acknowledge the importance of sexual health assessment, they rarely perform this action in practice, and their attitudes and performance in this area remain inadequate [6, 10-12]. Cultural barriers, social taboos, and lack of specialized training especially in traditional societies such as southeastern Iran are major reasons for this situation. Moreover, limited and insufficient research on nurses' attitudes and practices in this field has created a significant knowledge gap [6, 13-15]. Studies in culturally similar countries, including Saudi Arabia, report that nurses often have limited knowledge and negative attitudes toward sexual health care for cancer patients, highlighting the need for targeted education [15]. Considering the clinical importance of sexual health, particularly for women with cancer, and its underrepresentation in medical and nursing education, this study aimed to evaluate the attitudes and practices of oncology nurses in southeastern Iran. The findings are expected to identify educational gaps and inform the development of targeted training programs to enhance nurses' competence and improve the quality of holistic, gender-sensitive cancer care.

Materials and Methods

Study Design and Setting

This descriptive, cross-sectional analytical study was conducted in the southeast of Iran. The target population comprised all nursing personnel working in oncology departments of hospitals affiliated with Medical Sciences universities in five major cities: Kerman (n = 35), Rafsanjan (n = 10), Zahedan (n = 19), Yazd (n = 14), and Bandar Abbas (n = 15).

Inclusion and Exclusion Criteria

Nurses were eligible to participate if they held a bachelor's degree or higher in nursing and provided voluntary consent. Nursing Aid or those with qualifications below the bachelor's level were excluded.

Sample Size and Sampling Method

A total of 93 nurses were included in the study using a census approach, encompassing all available eligible nurses from oncology departments in the five cities during the study period. Although described as a census, this method reflected all accessible participants rather than a comprehensive count of all oncology nurses in these cities. Inclusion and exclusion criteria were strictly applied, and reasons for any exclusions were systematically recorded.

This descriptive, cross-sectional analytical study was conducted in the southeast of Iran. The study aimed to include all eligible nurses working in oncology departments across five major cities in this region (Kerman, Rafsanjan, Zahedan, Yazd, and Bandar Abbas) using a census approach. A census is a method in which data are sought from all eligible units in the defined population rather than a subset, and it is commonly used in health research when the target population is small and well-defined. In practice, 93 nurses participated, representing those who were accessible and willing during the study period. Inclusion and exclusion criteria were strictly applied, and reasons for non-participation were documented.

Data Collection Instrument

Data were collected using a three-part questionnaire:

1. Demographic Information: Age, gender, marital status, education level, total work experience, oncology department experience, and training history.

2. Sexual Health Care Attitude Questionnaire (SHCS-A): Developed and revised by Kim et al. (2011), this tool includes 17 items rated on a three-point Likert scale (1–3), covering: Discomfort in providing sexual health care (items 1–7), Uncertainty about patient acceptance (items 8–11), Lack of environmental support (items 12–14), Fear of negative reactions from colleagues (items 15–17)

The total score ranges from 17 to 51, with higher scores indicating more positive attitudes [4, 16].

3. Sexual Health Care Practice Questionnaire (SHCS-P):

Designed by Chae et al. in 2015, the questionnaire consists of 21 items rated on a 2-point scale: 1 = "performed," 0 = "never performed." It includes four subscales: Practice for sexual function (items 1–8), Practice for psychological factors (items 9–14), Practice for social problems and records (items 15–18), Practice for reproductive care (items 19–21)

The total score ranges from 0 to 21. The validity and reliability were previously established by Chae et al. (2015), with a Cronbach's alpha of 0.91 for the overall questionnaire [11].

Because this questionnaire was used for the first time in Iran, it underwent a rigorous translation and validation process: backward-forward translation by three independent translators, review by a panel of bilingual experts, and content validity assessment by 10 professionals (nurses, physicians, academic lecturers). The instrument was pilot-tested on 10 nurses; internal consistency was confirmed with Cronbach's alpha coefficients of 0.92 for the attitude scale and 0.96 for the practice scale. Permission for translation and adaptation was obtained from the original developers, and the finalized English version was sent back for approval to

ensure ethical use and content equivalence.

Data Collection Procedure

Following approval from the ethics committee and acquisition of required administrative permissions, the researcher coordinated with hospital directors across the five cities. Supervisors of oncology departments facilitated the identification of eligible nursing staff. After obtaining informed consent, questionnaires were distributed directly to the nurses. Data collection was arranged at times convenient for participants to enhance response rates and promote candidness.

Data Analysis

Data were analyzed using SPSS version 25. Descriptive statistics (frequency, percentage, mean, and standard deviation) summarized demographic variables and attitude/practice scores, including subscales. Normality tests (Shapiro-Wilk) guided the choice of inferential tests. Pearson correlation was used for normally distributed continuous data; Spearman's rank correlation was applied for ordinal variables due to the Likert scale nature. Group differences were examined using independent t-tests or one-way ANOVA, with post-hoc Tukey tests applied for multiple comparisons. Multiple regression analysis was conducted to identify independent predictors of attitudes and practices. A p-value <0.05 was considered statistically significant. Corrections for multiple testing were applied where relevant.

Ethical Considerations

This study was approved by the Ethics Committee of Kerman University of Medical Sciences (approval code: IR.KMU.REC.1399.238, project number: 98000747). Participation was voluntary, with participants informed about their right to withdraw at any time. Confidentiality and anonymity were strictly maintained. The study adhered to the principles of the Declaration of Helsinki.

Results

Out of 93 invited oncology nurses, 75 participants completed the questionnaires (response rate: 80.6%). The majority of respondents were female (n = 69, 92%) and most were married (n = 55, 73.3%). The mean age was 32.52 ± 7.03 years. The average total work experience was 8.89 ± 7.28 years, with oncology-specific experience averaging 5.45 ± 5.08 years (Table 1).

Table 1. Demographic Characteristics of Nursing Staff in Oncology Departments

Variable	Frequency	Percentage (%)
Sex		
Male	6	8
Female	69	92
Marital Status		
Single	17	22.7
Married	55	73.3
Divorced	4	4
Education Degree		
Bachelor	68	90.7
Nurse Aids	5	6.7
Master	2	2.7
Position		
Nurse	67	89.3
Nurse Assistant	2	2.7
Head Nurse	1	1.3
Staff	5	6.7
Completed Sex Education Course		
Yes	6	8
No	69	92
City		
Zahedan	9	12
Kerman	35	46.7
Yazd	17	22.7
Rafsanjan	8	10.7
Bandarabas	6	8

Attitude and Practice Scores

The total attitude score toward sexual health assessment ranged from 17 to 51, with a mean of 42.33 ± 7.39, indicating an attitude level above the moderate range (the moderate level was defined as the theoretical midpoint of the scale, 34) [17]. The total attitude score toward sexual health assessment ranged from 17 to 51, with a mean of 42.33 ± 7.39, indicating an attitude level above the moderate range based on the scoring scale. The attitude subscale scores were as follows: Discomfort in providing sexual health care: 7–21 (mean: 17.48 ± 3.74), Uncertainty about patient acceptance: 4–12 (mean: 9.40 ± 2.16), Fear of colleagues' negative responses: 3–9 (mean: 7.64 ± 1.79), Lack of environmental support: 3–9 (mean: 7.81 ± 1.81).

The practice scores ranged from 0 to 21, with a mean total practice score of 5.85 ± 3.90, indicating practice levels below the moderate range. (the moderate level was defined as scores at or above the midpoint of the practice scale, 10.5) [18]. Practice subscale scores were as follows: psychological factors (range: 0–6; mean ± SD: 3.20 ± 2.35), sexual function (range: 0–6; 2.32 ± 0.91), social problems and documentation (range: 0–4; 1.46 ± 1.53), and reproductive care (range: 0–3; 0.60 ± 0.83) (Table 2). Engagement was highest in psychological care, whereas reproductive care had the lowest practice scores.

Associations between Demographic Variables and Scores

Workplace location was significantly associated with attitude scores ($p < 0.001$), with nurses in certain cities demonstrating higher attitudes toward sexual health assessment. A small-to-moderate inverse correlation was observed between total years of professional experience and attitude scores ($r = -0.24$, $p = 0.03$), indicating that greater work experience was modestly associated with lower attitude scores. No significant associations were found between demographic characteristics and

Table 2. Mean and Standard Deviation of Attitudes and Practices Toward Sexual Health Assessment

Variable	Min	Max	Mean ± SD
Attitude Subscales			
Discomfort in providing sexual health care	7	21	17.48 ± 3.74
Feeling uncertain about patient's acceptance	12	41	40.9 ± 16.2
Afraid of colleagues' negative response	9	31	27.4 ± 7.9
Lack of environmental support	9	31	28.1 ± 7.8
Total attitude score	17	51	42.33 ± 7.39
Practice Subscales			
Practice for sexual function	0	6	0.32 ± 0.91
Practice for psychological factors	0	6	3.20 ± 2.35
Practice for social problems and records	0	4	1.53 ± 1.46
Practice for reproductive care	0	3	0.60 ± 0.83
Total practice score	0	14	5.58 ± 3.9

practice scores. Additionally, gender, age, marital status, educational level, and oncology-specific experience were not significantly related to either attitude or practice outcomes (Table 3).

Discussion

This study examined oncology nurses' attitudes and practices regarding sexual health assessment in southeastern Iran, revealing a notable discrepancy: although nurses exhibited attitudes toward sexual health assessment above the moderate level, their clinical practice scores were below moderate [19]. This attitude–practice gap has important implications for patient outcomes, as unmet sexual health needs are strongly associated with reduced quality of life, impaired intimacy, and relationship difficulties among cancer survivors, particularly women. This gap indicates that various barriers may hinder the translation of positive attitudes into consistent clinical behaviors. One major contributing factor is the cultural context of Iran. Conservative social and religious values impose strong taboos around sexuality, rendering open discussion of sexual health both socially and professionally sensitive [20]. Nurses, as members of this cultural environment, may feel discomfort initiating conversations about sexuality despite recognizing its importance. Similar findings have been reported in Korea, Saudi Arabia, and China, where positive attitudes coexist with limited clinical engagement [4, 11, 15, 21].

Beyond cultural influences, educational and systemic factors also appear to play significant roles. Limited inclusion of sexual health topics in nursing and medical education curricula as well as lack of structured continuing professional development programs, may leave nurses feeling underprepared and lacking confidence to address sexual health concerns effectively [6]. Without structured communication training, nurses may lack confidence to address concerns related to intimacy, fertility, and sexual function. Additionally, high workload and time constraints in oncology settings restrict opportunities for comprehensive discussionsjects [21]. Iranian nurses have also reported personal discomfort and ethical concerns when discussing sexual health [22]. Together, these cultural, educational, and systemic factors help explain why favorable attitudes do not consistently translate into practice.

A second important finding was that the psychological subscale demonstrated the highest practice score, whereas reproductive and sexual-function domains had the lowest engagement. This suggests that nurses may feel more comfortable addressing emotional and psychological concerns, which are traditionally embedded within holistic nursing care. In contrast, reproductive and functional issues may be perceived as more private, culturally sensitive, or beyond routine nursing responsibilities. Discussions regarding fertility preservation, sexual performance, or physical intimacy may also require specialized knowledge that nurses feel inadequately prepared to provide. Evidence indicates that sexual dysfunction substantially affects intimacy and relationship adjustment among cancer survivors. Therefore, the relative neglect of reproductive and functional domains may leave some of the most distressing survivorship concerns insufficiently addressed [23].

An additional noteworthy finding was the negative correlation between work experience and attitudes toward sexual health assessment. This contrasts with previous research suggesting that greater experience is associated with more positive attitudes [6, 15]. Several explanations may account for this discrepancy. Older nurses may have been trained during periods when sexual health was less emphasized in formal education. Lack of exposure to updated guidelines or continuing education may also contribute. Moreover, cumulative occupational stress or burnout may reduce motivation to initiate sensitive discussions. These findings highlight the need for ongoing competency updates and targeted in-service training, particularly for senior staff.

Regional differences in attitude scores suggest that contextual or institutional factors may influence practice patterns. Future qualitative research is needed to explore facilitators of effective sexual health communication in specific regions.

International clinical guidelines emphasize routine

Table 3. Correlation of Attitude and Practice Toward Sexual Health Assessment with Demographic Variables Among Oncology Nursing Staff

Variable	Attitude Mean ± SD	p-value (Attitude)	Practice Mean ± SD	p-value (9)
Sex				
Male	43.0 ± 5.51	0.82	7.5 ± 3.50	0.22
Female	42.7 ± 5.56		42.5 ± 3.91	
Completed Sex Education Course				
No	42.63 ± 7.46	0.22	36.5 ± 3.88	0.09
Yes	38.83 ± 5.94		38.16 ± 3.43	
Marital Status				
Single	44.70 ± 6.22	0.12	35.05 ± 3.86	0.82
Married	41.32 ± 7.67		35.74 ± 3.92	
Divorced	47.33 ± 3.51		35.66 ± 5.13	
City				
Zahedan	47.55 ± 4.21	0.0001	36.44 ± 3.57	0.26
Kerman	39.71 ± 7.46		35.11 ± 4.11	
Yazd	40.88 ± 7.51		36.29 ± 3.68	
Rafsanjan	50.25 ± 3.81		33.62 ± 3.81	
Bandarabas	43.33 ± 6.79		37.66 ± 3.26	
Position				
Nurse	42.05 ± 7.64	0.58	35.64 ± 3.39	0.43
Nurse Assistant	46.10 ± 0.46		10.00 ± 0.00	
Head Nurse	42.80 ± 4.03		35.60 ± 4.03	
Staff	51.00 ± 0.00		7.00 ± 0.00	
Degree of Education				
Bachelor	42.22 ± 7.61	0.91	35.33 ± 3.90	0.18
Nurse Aids	43.60 ± 7.40		37.40 ± 3.71	
Master	43.00 ± 7.07		39.50 ± 2.12	
Correlations (r, p)				
Age	r = -0.12, p = 0.18		r = -0.07, p = 0.53	
Work experience	r = -0.03, p = 0.24		r = 0.09, p = 0.41	
Oncology dept. experience	r = -0.16, p = 0.16		r = -0.10, p = 0.35	

sexual health assessment as a core component of comprehensive oncology care [24]. Aligning national policies and educational standards in Iran with such frameworks may help institutionalize sexual health assessment within oncology practice.

Overall, bridging the attitude–practice gap requires coordinated strategies at multiple levels: culturally sensitive education, structured communication training, institutional support mechanisms, and clearer role delineation within a multidisciplinary oncology framework involving nurses, oncologists, psychologists, and sexual health specialists. Addressing these barriers can improve intimacy-related outcomes and overall quality of life among cancer survivors, particularly women.

Limitations

Although the study initially referred to a census approach, the sampling method was more accurately a convenience sample of available oncology nursing staff during the study period. This limits generalizability. Additionally, reliance on self-reported data may introduce social desirability bias. As a cross-sectional study, causal relationships cannot be inferred.

In conclusion, this study demonstrated a significant gap between oncology nurses' generally positive attitudes and their limited clinical practice in sexual health assessment. Without structured education and institutional support, clinical experience alone does not translate into improved sexual health care. Addressing this gap through curriculum reform, continuing education, interdisciplinary collaboration, and culturally sensitive clinical tools is essential to improve holistic oncology care and patients' quality of life.

Declaration

Ethical approval and consent to participate

All methods were carried out in accordance with relevant guidelines and regulations of Kerman University of Medical Sciences. The Kerman University of Medical Sciences Ethics committee approved this project code IR.KMU.REC.1399.238. The oral information, including

the goals and objectives of the study, the confidentiality and anonymity of the data, and that the participants were free to withdraw from the study at any time, were provided by the researcher. Then written informed consent was taken individual from all subjects.

Consent to publication

Not applicable.

Availability of data and materials

The datasets supporting the conclusions of this article are available from the corresponding author on reasonable request.

Conflict of interests

The authors declare that they have no competing interests.

Funding

There was no funding for this study.

Author contribution

AH, MAF, AGh participated in the design of the research. AH, AGh, collet the data. BT performed the statistical analysis. AA write first draft the article. All authors contributed to the interpretation of the results and participated in the drafted the article or substantively revised it and finally read and approved the manuscript.

Acknowledgements

We would like to thank all the nurses for their cooperation.

Clinical Trial Number

Is not applicable.

References

1. Ben Charif A, Bouhnik A, Courbière B, Rey D, Préau M, Bendiane M, Peretti-Watel P, Mancini J. Sexual health problems in French cancer survivors 2 years after diagnosis-the national VICAN survey. Journal of Cancer Survivorship: Research and Practice. 2016 06;10(3):600-609. https://doi.org/10.1007/s11764-015-0506-3
2. Krouwel EM, Albers LF, Nicolai MPJ, Putter H, Osanto S, Pelger RCM, Elzevier HW. Discussing Sexual Health in the Medical Oncologist's Practice: Exploring Current Practice and Challenges. Journal of Cancer Education: The Official Journal of the American Association for Cancer Education. 2020 Dec;35(6):1072-1088. https://doi.org/10.1007/s13187-019-01559-6
3. Abbott-Anderson K, Kwekkeboom KL. A systematic review of sexual concerns reported by gynecological cancer survivors. Gynecologic Oncology. 2012 03;124(3):477-489. https://doi.org/10.1016/j.ygyno.2011.11.030
4. Ahn S, Kim J. Healthcare Professionals' Attitudes and Practice of Sexual Health Care: Preliminary Study for Developing Training Program. Frontiers in Public Health. 2020;8:559851. https://doi.org/10.3389/fpubh.2020.559851
5. Bauer M, Haesler E, Fetherstonhaugh D. Let's talk about sex: older people's views on the recognition of sexuality and sexual health in the health-care setting. Health Expectations: An International Journal of Public Participation in Health Care and Health Policy. 2016 Dec;19(6):1237-1250. https://doi.org/10.1111/hex.12418
6. Huang C, Tsai L, Tseng T, Li C, Lee S. Nursing students' attitudes towards provision of sexual health care in clinical practice. Journal of Clinical Nursing. 2013 Dec;22(23-24):3577-3586. https://doi.org/10.1111/jocn.12204
7. Krouwel EM, Nicolai MPJ, Steijn-van Tol AQMJ, Putter H, Osanto S, Pelger RCM, Elzevier HW. Addressing changed sexual functioning in cancer patients: A cross-sectional survey among Dutch oncology nurses. European Journal of Oncology Nursing: The Official Journal of European Oncology Nursing Society. 2015 Dec;19(6):707-715. https://doi.org/10.1016/j.ejon.2015.05.005
8. Mahmoud ZM, Fawaz MAJMJCU. Nurse's perception of barriers toward discussing female sexual issues in nursing practice. 2015;83(2):221-30...
9. Higgins A, Barker P, Begley CM. Sexuality: the challenge to espoused holistic care. International Journal of Nursing Practice. 2006 Dec;12(6):345-351. https://doi.org/10.1111/j.1440-172X.2006.00593.x
10. Arikan F, Meydanlioglu A, Ozcan K, Canli Ozer Z. Attitudes and Beliefs of Nurses Regarding Discussion of Sexual Concerns of Patients During Hospitalization. Sexuality and Disability. 2015 09 01;33(3):327-337. https://doi.org/10.1007/s11195-014-9361-9
11. Chae YH, Song YO, Oh ST, Lee WH, Min YM, Kim HM, et al. Sexual health care attitudes and practices of nurses caring for patients with cancer. 2015;15(1):28-36. https://doi.org/10.5388/aon.2015.15.1.28
12. 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: The Journal of Critical Care. 2012;41(5):492-499. https://doi.org/10.1016/j.hrtlng.2012.04.009
13. Azzellino G, Aitella E, Ginaldi L, De Martinis M. Barriers and Nursing Strategies in Oncology Care for LGBTQIA+ People: A Scoping Review. Cancers. 2025 03 28;17(7):1146. https://doi.org/10.3390/cancers17071146
14. Kim HS, Yun C. Effects of a sexual health enhancement program for women with breast cancer: A quasi-experimental study. European Journal of Oncology Nursing: The Official Journal of European Oncology Nursing Society. 2025 06;76:102852. https://doi.org/10.1016/j.ejon.2025.102852
15. Wazqar DY. Sexual health care in cancer patients: A survey of healthcare providers' knowledge, attitudes and barriers. Journal of Clinical Nursing. 2020 Nov;29(21-22):4239-4247. https://doi.org/10.1111/jocn.15459
16. Kim S, Kang HS, Kim J. A sexual health care attitude scale for nurses: development and psychometric evaluation. International Journal of Nursing Studies. 2011 Dec;48(12):1522-1532. https://doi.org/10.1016/j.ijnurstu.2011.06.008
17. DeVellis RF, Thorpe CT. Scale development: Theory and applications: Sage publications; 2021..
18. Moral J. Standardized distance from the mean to the median as a measure of skewness. Open Journal of Statistics. 2023;13:359-78.. https://doi.org/10.4236/ojs.2023.133018
19. Milutinović D, Marcinowicz L, Blaževičienė A, Polityńska-Lewko B, Vanckavičienė A, Jovanović NB. Nursing students' attitudes and beliefs towards addressing sexual health: A multicentre study and latent class analysis. Nurse Education Today. 2025 01;144:106415. https://doi.org/10.1016/j.nedt.2024.106415
20. Lieber E, Chin D, Li L, Rotheram-Borus MJ, Detels R, Wu Z, Guan J. Sociocultural contexts and communication

about sex in China: informing HIV/STD prevention programs. AIDS education and prevention: official publication of the International Society for AIDS Education. 2009 Oct;21(5):415-429. https://doi.org/10.1521/aeap.2009.21.5.415
21. Zhang C, Chang W, Liu Y. Understanding the PrEP Care Continuum for Adults: Health Care Providers' Perspectives on Barriers, Facilitators, and Missed Opportunities. AIDS patient care and STDs. 2025 02;39(2):61-69. https://doi.org/10.1089/apc.2024.0241
22. Mangolian Shahrbabaki P, Mehdipour-Rabori R, Gazestani T, Forouzi MA. Iranian nurses' perspective of barriers to sexual counseling for patients with myocardial infarction. BMC nursing. 2021 Oct 13;20(1):196. https://doi.org/10.1186/s12912-021-00697-x
23. Proctor CJ, Reiman AJ, Brunelle C, Best LA. Intimacy and sexual functioning after cancer: The intersection with psychological flexibility. PLOS mental health. 2024;1(1):e0000001. https://doi.org/10.1371/journal.pmen.0000001
24. Abu-Rustum NR, Campos SM, Amarnath S, Arend R, Barber E, Bradley K, Brooks R, et al. Cervical Cancer, Version 2.2026, NCCN Clinical Practice Guidelines In Oncology. Journal of the National Comprehensive Cancer Network: JNCCN. 2025 Dec;23(12):549-573. https://doi.org/10.6004/jnccn.2025.0057