Cancer Screening: Knowledge, Attitudes, and Practices among Healthcare Personnel

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Abstract

Background: It is crucial for medical personnel to be aware of cancer symptoms and engage in appropriate screening practices. This study aimed to investigate the knowledge of Iranian healthcare staff regarding cancer warning symptoms, their attitudes towards cancer risk factors, and their willingness to undertake cancer screening tests.

Method: This cross-sectional study involved administering validated questionnaires to 145 medical staff. In addition to descriptive statistics, independent sample t-test and Analysis of Variance (ANOVA) were utilized to compare knowledge, attitudes, and performance of cancer screening tests. Pearson's correlation coefficient was used to determine the relationship between demographic and occupational variables and participants' knowledge and attitudes regarding cancer risk factors and screening practices.

Results: The mean knowledge and attitude scores were 7.97 ± 2.01 and 35.41 ± 4.69, respectively. Among the 125 female participants aged 25-57 years, only 44% performed monthly breast self-examinations, 22.1% sought specialist physicians for breast cancer screening, and only 20.51% of female participants over the age of 40 underwent mammography. Regarding cervical cancer screening, 27.2% had undergone annual Pap smear tests, and 17.6% referred to a specialist for annual pelvic examinations. Among staff older than 45 years (24 participants), only one had undertaken an occult blood test and colonoscopy for colorectal cancer screening.

Conclusion: Although most healthcare workers demonstrated awareness of cancer warning signs, they did not engage in regular preventive screening practices. Regular educational programs should be implemented to encourage healthcare personnel to perform routine cancer screening.

Keywords: Cancer, Knowledge, Attitude, Risk factors, Screening

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Introduction

Cancer is one of the most important causes of death worldwide, with more than 19.3 million new cases diagnosed each year, resulting in approximately 10 million deaths globally.[1] According to reports from the World Health Organization (WHO), around 70% of cancer-related deaths occur in low- and middle-income countries.[2]

In Iran, cancer-related mortality ranks third after cardiovascular diseases and accidents, with approximately 135,000 new cases and 41,940 deaths reported annually.[3] The most common types of neoplasms in Iran, based on age-standardized rates, are skin, stomach, bladder, prostate, and colorectal cancers in men, and breast, skin, colorectal, stomach, and esophageal cancers in women. Overall, the most frequent cancers in Iran are skin, stomach, breast, colorectal, and bladder,[4] cancers.

Advancements in medicine and biomedical technology have transformed the perception of cancer from an inevitably fatal condition to a chronic and treatable disease.[5]

Consequently, it is crucial to recognize the warning signs of cancer and take preventive measures, such as performing diagnostic tests, to prevent its occurrence or progression.[6] Increasing public awareness of cancer warning signs and promoting preventive actions are essential.[7] The specific warning symptoms of cancer vary depending on the type and can include changes in bowel or bladder habits, non-healing sores, unexplained bleeding, lumps or swelling, difficulty swallowing, changes in the appearance of moles or warts, digestive difficulties, persistent cough or hoarseness, and unexplained weight loss.[7] Studies conducted in India, England, and France have revealed low levels of public awareness regarding cancer warning signs.[8-11] Similarly, studies conducted in Iran, focusing on women's cancers such as breast and cervical cancer, have shown similarly low levels of awareness.[12, 13] Furthermore, studies by Zolfaghari et al., and Jemal et al.,[6, 7] have indicated undesirable and moderate levels of awareness and frequency of screening tests among the general population. Rahman and Kar[14] have proposed that nurses who regularly undergo screening themselves can serve as role models for female patients, encouraging early cancer screening within their communities. This approach can facilitate the early and prompt detection of cancerous lesions and increase the public's health-seeking behavior

A considerable number of studies in medical literature have documented the knowledge, attitudes, and practices regarding cancer awareness and screening among healthcare workers (HCWs).[14-18] However, there is a scarcity of studies conducted among HCWs in Iran that focus on their awareness of cancer symptoms, risk factors, protective measures, and screening practices. As medical staff members are responsible for educating patients and the general public about cancer signs, symptoms, diagnostic procedures, and preventive measures, it is crucial to periodically assess the levels of awareness among HCWs and regularly update their knowledge. It is believed that educating HCWs, particularly nurses, will contribute to their skills expansion and aid in the early detection of cancer,[19] especially in societies where late presentation is common.

Medical staff members with limited awareness of cancer warning symptoms may not be sufficiently capable of motivating the general public to undergo cancer screening assessments.[17] Inadequate education of healthcare providers about breast cancer has also been identified as a contributing factor to delays in care.[20] In some cases, the barriers that patients encounter in accessing healthcare services are a result of the practices and behaviors of HCWs.[21] Therefore, considering the importance of medical staff awareness in effectively guiding patients and the public,[12] this study aims to investigate the knowledge of Iranian medical staff regarding cancer warning symptoms, their attitudes toward cancer risk factors, and their willingness to undergo cancer screening tests. Additionally, the study seeks to evaluate the relationships between these factors.

Table 1. Participants' characteristics and their relationship to knowledge and attitude (n=145)

Variables /Characteristics	n (%)	Mean ± SD	Knowledge	*P*-value	Attitude	*P*-value
Gender						
Male	20 (13.8)		7.95 (1.82)	0.944	33.95 (5.06)	0.133
Female	125 (86.2)		7.98 (2.04)		35.64 (4.60)	
Marital status						
Unmarried	21 (14.48)		7.68 (2.56)	0.874	33.89 (5.76)	0.544
Married	124 (85.52)		8.01 (1.93)		35.66 (4.51)	
History of cancer in the family/ relatives						
Yes	44 (30.3)		7.60 (2.39)	0.184	35.23 (4.92)	0.692
No	101 (69.7)		8.14 (1.79)		35.57 (4.55)	
Relation of person with cancer						
Parents	25 (56.8)		7.84 (2.37)	0.754	34.04 (4.94)	0.108
Relatives	19 (43.1)		7.63 (1.86)		36.42 (4.50)	
Position						
Nursing	103 (71)		8.04 (2.05)	0.920	35 (4.92)	0.425
Laboratory sciences	9 (6.2)		7.55 (2.45)		35 (3.96)	
Radiology	9 (6.2)		8.11 (.92)		36.44 (3.35)	
Anesthesiology	8 (5.5)		7.62 (1.30)		35.75 (4.23)	
Midwifery	7 (4.8)		7.42 (3.30)		38.42 (3.86)	
Operating room technician	9 (6.2)		8.22 (1.30)		36.77 (4.32)	
Education level						
Under bachelor	12 (8.3)		7.25 (3.44)	0.395	34.66 (4.67)	0.469
Bachelor	121 (83.4)		8.06 (1.81)		35.61 (4.68)	
Master	11 (7.6)		7.81 (2.18)		34 (4.83)	
Age (years)		37.42 ± 5.72	7.97 ± 2.01	034* (.686)	35.41 ± 4.68	-0.002* (.977)
Work Experience (years)		12.93 ± 5.24	7.97 ± 2.01	0.020* (.815)	35.41 ± 4.68	0.020* (.816)

The limited sample size in certain subgroups within the tables is attributed to missing data; *: Pearson correlation coefficient; n: Number

Materials and Methods

Study and population

This cross-sectional study was conducted involving the personnel employed at the medical centers of Tabriz University of Medical Sciences. The primary objective of this study was to assess the level of awareness among staff regarding general cancer symptoms and their attitudes towards common risk factors associated with cancer. Additionally, the study aimed to determine whether staff members undergo cancer screenings based on their gender and age. To achieve these objectives, questionnaires were distributed to and completed by staff members working in various departments associated with Tabriz University of Medical Sciences. The inclusion criteria for participants were as follows: being employed as a nurse, midwife, operating room technician, laboratory staff, anesthesiologist, or radiologist; holding a diploma, associate, bachelor's, master's, or doctorate degree in a health-related field; not having a self-reported diagnosis of cancer; expressing a willingness to participate in the study; and being over the age of 30, as cancer prevalence tends to increase after this age, according to the American Cancer Society Guidelines.[22] The sample size was estimated to be 150, based on similar studies, a 95% confidence interval, a mean of 4.25, the mean number of recalled warning signs by staff members, an acceptable error rate of 0.1, and an anticipated sample loss of 30%. Sampling was carried out by obtaining a list of all HCWs (e.g., nurses, midwives) from the human resources management of Tabriz University of Medical Sciences, identifying eligible personnel over the age of 30, and randomly selecting respondents who met the inclusion criteria. Ultimately, a total of 145 individuals participated in the study, with nurses comprising the largest group of participants due to their high representation within the sample.

Questionnaires

The survey consisted of four sections. The initial section encompassed participants' demographic characteristics, such as age, gender, marital status, education, occupation, type of employment, workplace, and history of cancer among family members or friends. To assess staff awareness of cancer warning signs,[23] we utilized a questionnaire developed by Robb et al. (2009),

Table 2. Participants' understanding of warning signs and symptoms of cancer

Questions	False n (%)	True n (%)
Changes in bowel/ bladder habits	22 (15.2)	123 (84.8)
Sore that does not heal	24 (16.6)	121 (83.4)
Unexplained bleeding	11 (7.6)	134 (92.4)
Lump or swelling	8 (5.5)	137 (94.5)
Difficulty in swallowing	16 (11)	129 (89)
Change in the appearance of a mole or wart	12 (8.3)	133 (91.7)
Difficulty in digestion, dyspepsia	25 (17.2)	120 (82.8)
Persistent cough or hoarseness	20 (13.8)	125 (86.2)
Unexplained weight loss	10 (6.9)	135 (93.1)
	Range	**Mean (SD)**
Total Knowledge score	1-9	7.97 (2.01)
Knowledge Level	**Frequency**	**Percent**
Low	41	28.3
Moderate	63	43.4
Good	41	28.3

comprising nine closed-ended questions. These questions focused on identifying awareness of cancer warning signs, including changes in bowel/bladder habits, presence of chronic non-healing wounds, unexplained bleeding, presence of lumps or swelling, difficulty in swallowing, changes in the appearance of moles or warts, difficulty in digestion, persistent cough or hoarseness, and unexplained weight loss. Each symptom was presented as a statement, and participants were required to indicate whether they believed the statement was true or false. A score of 1 was assigned for each correct response and a score of 0 for each incorrect response. Scores ranged from 0 to 9, with higher scores indicating better awareness of warning signs.

To assess staff attitudes toward the role of risk factors in cancer incidence, we employed a questionnaire developed by Cook et al. (2011).[24] This section consisted of 11 items rated on a four-point Likert scale, ranging from strongly agree (score 4) to strongly disagree (score 1). Participants were asked to express their level of agreement with each statement. The total possible scores ranged from 11 to 44, with higher scores indicating a more favorable attitude toward managing cancer risk factors. The evaluated risk factors included smoking, exposure to secondhand smoke, sunburn, overweight (body mass index above 25), alcoholism (consuming more than one glass daily), low physical activity (exercising less than 30 minutes for 5 days a week), poor diet lacking in fruits and vegetables, consumption of red meat on a daily basis or more frequently, age over 70 years old, and a family history of cancer.

The fourth section of the questionnaire focused on the extent of performing cancer screening tests and was developed based on the guidelines of the American Cancer Society (ACS).[22]

It assessed various screening tests, including annual periodic examinations, regular oral examinations, endoscopy, periodic blood tests, urine and fecal tests, rectal examination, hepatitis B vaccination, prostate and testicular examinations, and mammography for individuals over 45 years old.

The validity and reliability of the questionnaire were assessed based on a study conducted by Zolfaghari et al. (2010), where it achieved a validity coefficient of 0.85. Face and content validity were established by distributing the questionnaire to ten faculty members of Tabriz University of Medical Sciences, who provided valuable feedback for necessary revisions. Reliability was determined through a pilot study involving 30 personnel, using the Kuder-Richardson formula (KR21), which yielded a reliability coefficient of 0.88.

Data collecting

To begin with, approval was obtained from the Hematology and Oncology Research Center and the Regional Ethics Committee of Tabriz University of Medical Sciences in order to conduct the study. Subsequently, the researcher visited

Table 3. Perceptions on the influence of risk factors in cancer development

Attitude items	Completely disagree	Disagree	Agree	Completely agree
Smoking	-	4 (2.8)	27 (18.6)	114 (78.6)
Passive smoking	1 (0.7)	7 (4.8)	44 (30.3)	93 (64.1)
Sunburn	1 (0.7)	13 (9)	71 (49)	60 (41.4)
Overweight	5 (3.4)	31 (21.4)	73 (50.3)	36 (24.8)
Alcohol consumption	1 (0.7)	11 (7.6)	45 (31)	88 (60.7)
Low exercise and physical activity	9 (6.2)	49 (33.8)	58 (40)	29 (20)
Low consumption of fruits and vegetables	2 (1.4)	19 (13.1)	63 (43.4)	61 (42.1)
High intake of high cholesterol meats	1 (0.7)	45 (31)	69 (47.6)	30 (20.7)
Age	4 (2.8)	51 (35.2)	59 (40.7)	31 (21.4)
Family history of cancer	1 (0.7)	9 (6.2)	59 (40.7)	76 (52.4)
Hepatitis B virus infection	-	21 (14.5)	82 (56.6)	42 (29)
	Range	**Mean ± SD**		
Total score	19-44	35.41 ± 4.68		

the teaching hospitals to identify eligible subjects who could participate in the study. The objectives of the research were explained to them, and they were invited to take part. Once informed consent was obtained, the personnel completed the questionnaires. Finally, the collected data underwent statistical analysis.

Ethical considerations

The Vice Chancellor for Research of Tabriz University of Medical Sciences and the Ethics Committee of Tabriz University of Medical Sciences (TBZMED.REC.1392.563) approved this study. The participants were provided with information about the study's purpose and how to complete the questionnaires, and written consent was obtained from them.

Statistical analysis

Data analysis was performed using the Statistical Package for the Social Sciences (SPSS) for Windows, version 22.0 (SPSS Inc.). Descriptive statistics, including frequency, percentage, mean, and standard deviation, were utilized to present the demographic data. Additionally, the frequency of undergoing screening tests was reported for each age group, following the cancer screening guidelines provided by the American Cancer Society. Analytical statistics, such as independent sample t-test and Analysis of Variance (ANOVA), were employed to examine the relationship between knowledge, attitude, and performance in cancer screening tests. These tests, along with Pearson's correlation, were used to determine the association between demographic and occupational variables and the participants' knowledge and attitude.

Results

Of the 145 participants, the majority (82.6%) were females, and a large portion (85.5%) were married. The majority of the participants (71%) were nurses, and a significant proportion (83.4) held at least a bachelor's degree. The average age of the participants was 37.42 ± 5.73 years. The analysis revealed no significant correlation between demographic or occupational variables and the participants' knowledge of cancer symptoms or their attitude toward cancer risk factors among the medical staff (Table 1). The mean knowledge score among the medical staff was 7.97 ± 2.01. The symptom most commonly recognized as a warning sign by the participants was "stiffness or presence of masses in the breast or other organs". On the other hand, the symptoms of difficulty in digestion and dyspepsia were the least familiar to the participants, with only 17.15% recognizing them as warning signs (Table 2). In terms of the staff's attitude toward the role of risk factors in increasing the risk of cancer, the results indicated a mean attitude score of 35.41 ± 4.69. The majority of participants strongly agreed with the role of smoking (78.6%) and exposure to cigarette smoke (64.1%) as risk factors for cancer. Furthermore, 60.7% agreed with alcohol abuse and 52.4% agreed with having a family history of cancer as contributing factors (Table 3).

The study also examined the participants'

Table 4. Screening proficiency of participants in detecting cancers and its association with knowledge and attitude

	Questions	Sample size n (%)		n (%)	Knowledge Mean (SD)	*P*-value	Attitude Mean (SD)	*P*-value
Women's cancers (n=125)	Screening for breast cancer (Self-examination)	125 (100)	Do	55 (44)	8.17 (1.58)	0.321	36 (4.56)	0.479
			Do not	69 (55.2)	7.81 (2.35)		35.40 (4.67)	
			Missed	1 (0.8)	-		-	
	Screening for breast cancer (examination by a physician)	20-39 Year 86 (68.8)	Do	19 (22.1)	8.42 (1.07)	0.230	36.84 (4.36)	0.112
			Do not	64 (74.7)	7.78 (2.22)		34.95 (4.53)	
			Missed	3 (3.5)	-		-	
	Screening for breast cancer (examination by a physician)	>40 year 39 (31.2)	Do	11 (28.20)	8.54 (.82)	0.390	38.90 (2.65)	0.060
			Do not	23 (58.87)	7.82 (2.65)		35.47 (5.25)	
			Missed	5 (12.83)	-		-	
	Screening for breast cancer (Mammography)	>40 year 39 (31.2)	Do	8 (20.51)	8.50 (0.92)	0.533	38.75 (4.23)	0.156
			Do not	26 (66.66)	7.92 (2.51)		35.80 (5.20)	
			Missed	5 (12.83)	-		-	
	Screening for cervical cancer (Pap smear test)	125 (100)	Do	34 (27.2)	8.38 (1.68)	0.146	37.20 (4.17)	0.024
			Do not	85 (68)	7.76 (2.21)		35.08 (4.72)	
			Missed	6 (4.8)	-		-	
	Screening for cervical cancer (pelvic examination every year by an expert)	125 (100)	Do	22 (17.6)	8.22 (1.97)	0.530	37.63 (3.74)	0.029
			Do not	101 (80.8)	7.92 (2.08)		35.27 (4.70)	
			Missed	2 (1.6)	-		-	
Participants (n=24)	Screening for colorectal cancer (fecal occult blood test every year)	125 (100)	Do	1 (4.16)	9 (00)		44 (00)	-
			Do not	9 (37.5)	7.44 (3)		34.33 (7.58)	
			Missed	14 (58.33)	-		-	
	Screening for colorectal cancer (colonoscopy)	125 (100)	Do	1 (4.16)	9 (00)		44 (00)	-
			Do not	8 (33.34)	7.25 (3.15)		34.25 (8.10)	
			Missed	15 (62.5)	-		-	
	Screening for colorectal cancer (abdominal X-ray)	125 (100)	Do	-	-		-	-
			Do not	8 (33.34)	7.25 (3.15)		34.75 (8.61)	
			Missed	16 (66.66)	-		-	

The restricted sample size in certain subgroups within the tables is due to missing data; Pap: Papanicolaou; n: Number

performance in cancer screening tests. Among the 125 female participants aged between 25 and 57 years, only 44% reported performing monthly breast self-examinations. Although those who practiced self-examination had better knowledge and attitude toward cancer warning symptoms compared with those who did not, the difference was not statistically significant ($P > 0.05$). Additionally, among the female participants aged between 20 and 39 years (constituting 68.8% of the female participants), only 22.1% visited a specialist physician for breast cancer screening every three years. Again, while these women displayed better knowledge and attitude toward cancer warning signs compared with those who did not undergo clinical examinations, the difference was not statistically significant ($P > 0.05$). Among the female participants aged 40 years and older (31.2% of the sample), 28.2% visited a specialist annually.

Regarding other breast cancer screening methods, only 20.51% of female participants over 40 years old underwent mammography. Although these women had higher levels of knowledge and a more positive attitude toward breast cancer compared with those who did not have a mammogram, the difference between the two groups was not statistically significant ($P > 0.05$). For cervical cancer screening, 27.2% of female participants reported having annual Papanicolaou (Pap) smear tests, and 17.6% visited a specialist for annual pelvic examinations (Table 4). There was no significant difference in the mean score of knowledge regarding cancer warning symptoms between women who underwent cervical cancer screening and those who did not ($P > 0.05$). However, those who underwent Pap smear and pelvic examinations exhibited more favorable

attitudes toward the role of cancer risk factors (*P* < 0.05). As for colorectal cancer screening among staff older than 45 years, only one out of 24 participants (16.6%) underwent an occult blood test and colonoscopy (Table 4). Due to the low number of male participants in this study, most of whom were younger than 50 years and did not meet the criteria for prostate cancer screening, no further statistical analysis was conducted on this issue.

In summary, the study found that the level of knowledge among the personnel regarding cancer warning signs was average. The findings regarding cancer screening revealed that a very small percentage of the staff underwent screening for uterine, breast, colorectal, and prostate cancer.

Discussion

The findings indicate that HCWs possess a good understanding of general cancer symptoms and hold positive attitudes towards cancer risk factors. However, a majority of them do not undergo screening tests.

The study yielded four key findings. Firstly, HCWs who regularly underwent Pap smears and pelvic examinations demonstrated more favorable attitudes towards the role of cancer risk factors. Secondly, there were no significant associations between demographic and occupational variables and the knowledge of cancer symptoms and attitudes towards cancer risk factors in this cohort of HCWs. Thirdly, the majority of HCWs exhibited a high level of knowledge regarding risk factors, including active and passive smoking, alcohol abuse, and a family history of cancer. Lastly, a low percentage of female HCWs engaged in regular breast self-examinations and other screening tests, while all eligible male HCWs, with the exception of one individual, never underwent regular colorectal cancer screening.

The predominantly female nursing respondents in this study, holding bachelor's degrees, share similar demographics with a previous study conducted by Cook et al.[24] which also consisted mostly of females aged 25 to 64 years. However, the reasons for the higher proportion of female HCWs in both studies may vary, as the authors attribute this finding to the preference of female patients in the Middle Eastern countries for female caregivers. This preference could be influenced by cultural, traditional, and religious beliefs, as well as the natural inclination of female patients to confide in other females.[17]

In the present study, the participants mostly acquired their knowledge about cancer warning signs through university courses. In contrast, Cook et al.,[24] found that most participants gained their knowledge through self-study, with pamphlets and posters playing a minimal role in augmenting their understanding. Another study by Mahajan et al.,[25] also demonstrated that nurses primarily obtained information about cervical cancer warning signs within the hospital environment through various means.

The majority of participants in this study responded affirmatively when asked whether a particular symptom was indicative of cancer. Yahar et al.,[26] conducted an examination of nursing students and found that having a family member with cancer, being in a more advanced nursing class, and participating in a cancer-related educational program were significantly associated with knowledge of cancer warning signs. Among the HCWs in this cohort, the symptoms of "stiffness or presence of masses in the breast or other organs" and "digestion or dyspepsia" were the most and least recognized warning signs, respectively, which aligns with similar studies.[26, 27] Yakar et al.[26] suggest that this discrepancy may be attributed to the prevalence of breast cancer information on various media platforms such as social media, television, newsprint, and the internet, compared to information on other types of cancer. Zolfaqari et al.[7] conducted a study in Tehran to evaluate the awareness of cancer warning symptoms, and the majority of participants identified "hardness or the presence of masses" and "rapid weight loss" as the main warning signs of cancer.[15, 17, 28] When assessing cancer risk factors, most participants identified smoking and daily alcohol abuse as factors that increase the risk of developing cancer. Additionally, the majority of participants strongly agreed that a family history of cancer is a risk

factor. Other studies have also acknowledged smoking and alcohol abuse as cancer risk factors. In a study conducted by Shivakumar et al.,[29] participants recognized smoking and alcohol abuse as risk factors for oral cancer.

A gap in practice was observed among HCWs in this particular group, despite their awareness of cancer warning signs. Only a small number of female participants, mainly nurses, engaged in breast cancer self-examinations or sought regular examinations and mammograms, cervical cancer screenings, and Pap smear tests from a specialist physician. This finding is consistent with similar studies[18, 19, 30] and presents a paradox, since it is expected that HCWs, with their knowledge of cancer and its risk factors, would serve as role models in promoting cancer prevention and timely detection within their communities. Jain et al.[31] discovered that nurses lacked knowledge about cervical cancer symptoms and the importance of Pap smear tests, leading to their reluctance in encouraging others to undergo such examinations. Consequently, HCWs cannot effectively educate the public about cancer screening tests until they genuinely believe in the effectiveness of preventive measures such as screening and other tests.

Our findings also indicated that male participants did not exhibit a tendency to undergo prostate examinations, even when given the opportunity in their workplace. The low knowledge and participation rates regarding screening tests and risk factors for prostate cancer found in the study by Tasian et al.,[32] align with the present study, contrasting with the results of Firzara et al.[28] where male HCWs demonstrated good knowledge of prostate cancer and high rates of screening (89% of respondents). Similarly, the majority of respondents in our study did not undergo screening tests for colon cancer, as well as general checkups for thyroid, testicular, ovarian, lymph node, oral, and skin cancers, which should be conducted every three years. Therefore, the lack of cancer screening among HCWs may contribute to increased mortality rates among medical staff, including physicians, nurses, and midwives, as various types of cancer go undetected.

Several limitations exist in this study. Firstly, the study only included participants aged 30 years and above, who were employed in a single teaching hospital. Secondly, the views of physicians were not surveyed in this study. Thirdly, the findings are specific to HCWs in Tabriz, Iran, and may not necessarily reflect the knowledge, attitude, and practices of HCWs in other regions of the country. Fourthly, as the study predominantly involved nurses, there is potential for selection bias. Finally, the small sample size of this study limits the generalizability of its findings.

Conclusion

Although the majority of HCWs in this study were aware of the signs indicating cancer, they did not consistently engage in preventive screening measures. It is crucial for medical staff to recognize their responsibility in educating and encouraging the general public to undergo regular cancer examinations. By promoting early detection of cancers, we can enhance the chances of cancer survivorship. Further research is needed to understand the underlying reasons for HCWs' hesitancy in conducting periodic screenings. Moreover, it is important to implement educational programs targeting medical staff at regular intervals. These programs aim to enhance the knowledge and attitudes of HCWs towards cancer. Ultimately, encouraging medical staff to engage in routine cancer screenings would improve their understanding of cancer risk factors and enable them to effectively reach out to the public. Consequently, this proactive approach would likely reduce instances of late presentation to hospitals.

Acknowledgments

Conflict of Interest

None declared.

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