

Uptake of Cancer Screening among Staff of Military Hospital Lagos

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Abstract

The uptake of cancer screening services remains poor in developing countries due to altered perception and awareness of cancer. Difficulties associated with cancer screening include late reporting due to fear, ignorance, cost, and cultural issues. This study sought to establish the utilization of cancer screening services among health workers in Military Hospital Lagos (MHL) and the reasons for poor utilization of such services. Method: This quantitative study utilized 200 participants in MHL, Southwest, Nigeria to collect information. Proportionate probability sampling was used to determine those needed from each department and then conveniently selected after approval was received from the management of the hospital. Data was analyzed using SPSS 25.0 software at 95% CI with an alpha set at 5%. Findings: Participants were mostly males 106 (53.0%), between the age range of 20-30 years 73(36.5%), mostly married 114 (57.0%), with 122(61.0%) possessing a college degree, 90(45.0%) having average income >50-100 thousand naira and 132(66.0%) possessing health insurance. Major factors identified for influencing screening utilization were fear of a positive result, ignorance, belief in not being at risk, having many contending issues, nonchalant attitude to health, financial constraint. Conclusion: A low level of cancer screening and uptake was noticed among these health workers. This raises the need for urgent enlightenment about cancer screening even among health workers, and cancer screening made more available and affordable with easy accessibility to reduce the incidence and mortality of invasive cancer.

Keywords: Cancer, Healthcare workers, Military Hospital Lagos, Uptake of cancer screening, Utilization of screening services, Screening.

Introduction

Worldwide, the leading cause of morbidity and mortality amongst non-communicable diseases is Cancer [1]. The most common cancer among women is breast cancer [2], followed by cervical cancer [3-7]. These require highly sensitive tests to detect pre-malignant stages, especially from age 40 [3, 8]. Prostate

cancer (PCa) is a leading cause of cancer-related deaths in men from age 40. The incident as well as the mortality rates for PCa is also higher in African men [9]. PCa is amenable to early detection through screening, thus preventing and leading to the overall reduction in cancer mortalities. Poor screening practices lead to late-stage presentation and diagnosis and ultimately to poorer outcomes.

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The American Cancer Society statistics have shown that cervical cancer, for instance, used to be the most common cause of cancer deaths amongst American women; this has, however reduced significantly from the 1930s till date, due majorly to the increased uptake of screening among American women [5]. Unfortunately, this hasn't been seen with developing countries [10]. Cancer screening uptake remains a challenge despite the availability of low-technology and inexpensive screening tools in low-income countries [11-13]. For cervical cancer screening, particularly in developed countries, cytology is considered the gold standard for testing, not realizing other cost-effective methods. [14, 15]. Nevertheless, in low-resource settings like Nigeria, low-technology and inexpensive screening tools, i.e., Visual Inspection with Acetic Acid (VIA) and Human Papilloma Virus DNA (HPV DNA) testing, which significantly reduces the mortality from cervical cancer, are preferred alternatives that should be optimally utilized to further lower the mortality rates of cervical cancer in the region [16].

Hence extensive involvement in screening is vital to cancer prevention and early detection. Regrettably, screening rates are extremely low in most populations. For screening to be successful, an individual must decide to take action (i.e., completing self-exams, scheduling appointments, and so on).

Thus, the knowledge of decision-making is vital to understanding and rising screening adherence in various populations. Certain screening procedures (i.e., colorectal screening) have multiple screening options as well as raise concerns regarding the harms outweighing the benefits of screening.

Methods

Study Design

This study used a cross-sectional descriptive study design to facilitate the gathering of data from the subset of the population.

Study Area

The study was carried out using personnel from the different departments in the military hospital, Lagos, from the 25th of August to the 9th of September 2021. Military hospital Lagos (once popularly known as Creek Hospital) is a reference hospital located in Onikan, Lagos Island. The hospital was chosen because it has a good reputation for medical expertise being a referral center for most hospitals on Lagos Island and has specialists in all the major specialties and a few sub-specialties as well. MHL offers some screening services such as Self-breast examinations (SBE) and practical teaching sessions and Ultrasounds (mammography is in view shortly); Visual Inspection with Acetic acid (VIA), Pap smear, Trans-vaginal scan; Direct Rectal Examination, Prostatic Specific Antigen; Double Barium Enema studies and stool test, for Colorectal cancer screening.

Study Population

The target population includes both permanent and temporary staff with ages ranging from 20 to 55 working in the hospital. They represent a community as a whole on its own, with people from diverse socio-economic backgrounds, ethnic groups, and academic levels. The eligibility criteria included all who could communicate well in the English language or in "pidgin" English, those not having any symptom or prior diagnosis of cancer at time survey (verified by prior questioning on health status and types of drug usage), possess an MHL identity card (to rule out casual workers) and those able to give informed consent (verbal and written).

Sample Size and Sampling Technique

The quantitative data was obtained by the use of a well-structured, self-administered questionnaire after a thorough literature review and was pre-tested in another military hospital.

In the first section of the questionnaire, respondents were asked about their socio-

demographic characteristics like *Gender, Age Range, Marital status, educational level, Average income per month, whether under health insurance, Job description, and department*; all these from research have been seen to be determining factors in health-seeking behaviors [17]. Being a female, advancing age, being married, having higher educational qualifications, being under or having health insurance, and having a higher income all help in better overall health-seeking behaviors [18].

In the second section, respondents were asked about their awareness of cancer screening; knowledge on any of the tests, if the test were widely known or not if they themselves had undergone any cancer screening test in the last 6 months, how likely they were to submit themselves to a colorectal screening test, their opinions on why people do or do not go for cancer screening and finally if they had ever recommended any cancer screening exercise for their family or friends as healthcare workers; these were seen as positive indicators for cancer screening uptake.

The third section had 13 questions which sort to seek out the beliefs of the respondents on how important or necessary they thought cancer screening was, from “*Extremely necessary*”, “*Very necessary*”, “*Necessary*”, “*Not really necessary*” to “*Totally unnecessary*” were used to assess their level of perception to cancer screening, that is, their real thoughts about cancer screening. The responses to the items were scored using a five-point Likert scale from *extremely necessary* = 5 to *totally unnecessary* = 1.

The final section used the “*Health Belief Model*” to elicit the respondent’s thoughts on their *susceptibility to cancer, on the severity of cancer, the benefits to early screening, their perceived barriers to screening, motivation for screening, and how confident they were in going for screening*, this model was used to seek to understand how the respondent’s attitude to cancer screening could influence their compliance or otherwise to cancer

screening. Respondents’ responses were rated as HIGH, MEDIUM, or LOW to questions on perceived susceptibility to cancer, perceived severity of the disease, perceived benefits of early screening, perceived barriers in overcoming obstacles of going for cancer screening, cues to action, i.e., motivators, and self-efficacy, i.e., confidence, which were all assessed using a modified Likert scale of High, Medium, and Low beliefs. High was rated as 3, medium as 2, and low as 1. The highest score being 18 and lowest 6, higher scores indicative that preventive measures like cancer screening can lead to increased uptake of cancer screening in populations like that of MHL.

The questionnaires were numerically coded before being administered to the respondents. Ph.D. colleagues in public health working with the cancer research institute in Nigeria helped in the validation of the questionnaires. The 6 respondents who took part in the pilot test found the instrument easy to understand and needed only 15 to 20 minutes to complete the questionnaires. The few bugs and ambiguities in the questionnaire were modified according to their comments, and its validity was confirmed using Cronbach’s alphas for the pilot study and main study, which were 0.75 and 0.78, respectively, indicating a good level of reliability. Data were analyzed using the SPSS 25.0 software (SPSS Inc., IBM, USA).

Results

The results (Table 1) of the socio-demographic characteristics of the respondents showed there are more male 106(53.0%) respondents participating in the research than females 94(47.0%), with a vast majority, 73(36.5%) of them falling within the 20-30 year age range, most, 114(57.0%), were married, with over half of them, 122(61.0%) possessing a college degree, the average income of majority of the respondents was >50-100 thousand naira monthly, with the majority of them, 132(66.0%) having health insurance.

Table 1. Showing the Socio-demographic Characteristics of Respondents

Variables	Frequency (%)
Gender	
Male	106(53.0%)
Female	94(47.0%)
Age range (years)	
20-30	73(36.5%)
>30-40	65(32.5%)
>40-50	40(20.0%)
>50	22(11.0%)
Marital status	
Single (never being married)	82(41.0%)
Married	114(57.0%)
Separated	2(1.0%)
Divorced	2(1.0%)
Educational level	
Finished primary school	3(1.5%)
Finished secondary school	30(15.0%)
Technical school graduate	32(16.0%)
College graduate	122(61.0%)
Postgraduate	13(6.5%)
Average monthly income (Naira)	
≤50 thousand	42(21.0%)
>50-100 thousand	90(45.0%)
>100-200 thousand	52(26.0%)
>200-500 thousand	12(6.0%)
>500 thousand	4(2.0%)

On Awareness of cancer: Table 2 below shows - 52(26.0%) respondents could mention at least one cancer screening test, with only 57(28.5%) respondents claiming cancer screening was widely known, but only 5(2.5%) of them had ever done any cancer screening in the previous 6 months. Though most of the respondents, 124(62.0%) said, they would likely submit themselves for colorectal screening, even though 52(26.0%) had never recommended cancer screening to any family member or friend.

Table 3 below shows the relationship between variables on perception and the educational levels of the respondents using Chi-square at a P-value of 5%. All the variables, *i.e.*, *perception of the importance of cancer*

screening to healthcare management, if cancer screening should be made compulsory for employment, if cancer screening was necessary for everyone and if cancer screening was necessary for those above 75 years of age. Indicating that the perception of cancer screening of the respondents was linked to their educational level, and this was statistically significant.

The five variables presented in Table 4 below were identified to determine the Cancer screening decision-making processes of the respondents interviewed. Each variable was related with the respondent's responses on the question, "How likely would you submit yourself for Cancer screening?" using the Chi-square test at 5% alpha level. The table shows

statistically significant results at 5% alpha level, consequently resulting in the rejection of the null hypothesis which says, “the knowledge of cancer screening has no real effect on cancer screening decision making among health personnel of MHL”.

The Health Belief Model (Table 5 below) shows that 75(37.5%) of the respondents claimed to perceive their susceptibility to cancer as low because they believed not to have a first-degree relative who had cancer or had died from cancer (genetics or family history), also were not smokers of tobacco products, were not using any oral contraceptives, exercised fairly regularly, didn't drink alcohol recklessly, took adequate amounts of fiber in their diet, were not overweight, didn't think they were exposing themselves to any carcinogens nor excessive sunlight and were not yet above 40 years. While only 60(30.0%) respondents had a high perceived susceptibility to cancer.

Furthermore, 116(58.0%) respondents had a high perception of the severity of cancer, claiming cancer is something to be wary about

and needs to be guarded against as much as is humanly possible.

A vast majority of the respondents, 146 (73.0%), claimed to have a high perception of the benefits of cancer screening, recognizing the importance of early screening to detect pre-cancerous lesions to prolong life.

On the perceived barriers limiting or preventing them from going for cancer screening, 92(46.0%) respondents claimed fear, cost of screening test, discomfort, embarrassment, and being too busy posed a moderate barrier for them from being screened, but 78(39.0%) respondents claimed these factors posed a high barrier to their being screened.

A family history of cancer, advancing age, and positive exposure history or laboratory test could moderately make 102(51.0%) respondents seek cancer screening.

In spite of prevailing barriers or obstacles, 88(44.0%) respondents, respectively for high and medium self-efficacy, claimed they were able to take action in going for cancer screening.

Table 2. Showing the Awareness of Respondents on Cancer Screening

Variables	Frequency (%)
Do you know of any cancer screening test?	
Yes	52(26.0%)
No	148(74.0%)
In your opinion is cancer screening widely known?	
Yes	57(28.5%)
No	143(71.5%)
Have you had any cancer screening in last 6 months?	
Yes	5(2.5%)
No	195(97.5%)
How likely would you submit yourself for colorectal screening?	
Extremely unlikely	21(10.5%)
Unlikely	31(15.5%)
Likely	124(62.0%)
Extremely likely	24(12.0%)
Have you ever recommended cancer screening for family or friends as a health worker?	
Yes, I have	52(26.0%)
No, I haven't	148(74.0%)

Table 3. Showing Perception of Respondents to Cancer by Educational Level

Perception		Educational level				Chi-square value	p-value
		Finished Primary	Finished Secondary	Technical School Graduate	College Graduate		
1) Is Cancer screening necessary in healthcare management?							
Extremely necessary	3 (100.0%)	16 (53.3%)	10 (31.3%)	33 (27.0%)	6 (46.2%)	22.137	0.036*
Very necessary	0 (0.0%)	11 (36.7%)	13 (40.6%)	56 (45.9%)	7 (53.8%)		
Necessary	0 (0.0%)	1 (3.3%)	7 (21.9%)	29 (23.8%)	0 (0.0%)		
Not really necessary	0 (0.0%)	2 (6.7%)	2 (6.3%)	4 (3.3%)	0 (0.0%)		
2) Should Cancer screening be compulsory for employment?							
Extremely necessary	1 (33.3%)	7 (23.3%)	1 (3.1%)	8 (6.6%)	0 (0.0%)	30.265	0.017*
Very necessary	1 (33.3%)	1 (3.3%)	8 (25.0%)	23 (18.9%)	4 (30.8%)		
Necessary	0 (0.0%)	11 (36.7%)	9 (28.1%)	28 (23.0%)	2 (15.4%)		
Not really necessary	0 (0.0%)	11 (36.7%)	13 (40.6%)	49 (40.2%)	6 (46.2%)		
Totally unnecessary	1 (33.3%)	0 (0.0%)	1 (3.1%)	14 (11.5%)	1 (7.7%)		
3) Is Cancer screening necessary for those below 20 years?							
Extremely necessary	0 (0.0%)	11 (36.7%)	4 (12.5%)	9 (7.4%)	0 (0.0%)	33.234	0.007*
Very necessary	1 (33.3%)	6 (20.0%)	7 (21.9%)	25 (20.5%)	2 (15.4%)		
Necessary	1 (33.3%)	3 (10.0%)	4 (12.5%)	39 (32.0%)	7 (53.8%)		
Not really necessary	1 (33.3%)	9 (30.0%)	14 (43.8%)	43 (35.2%)	4 (30.8%)		
Totally unnecessary	0 (0.0%)	1 (3.3%)	3 (9.4%)	6 (4.9%)	0 (0.0%)		
4) Is Cancer screening recommended after 75 years of age?							
Extremely necessary	1 (33.3%)	8 (26.7%)	6 (18.8%)	22 (18.0%)	5 (38.5%)	26.227	0.051
Very necessary	1 (33.3%)	1 (3.3%)	6 (18.8%)	30 (24.6%)	2 (15.4%)		
Necessary	0 (0.0%)	13 (43.3%)	8 (25.0%)	37 (30.3%)	4 (30.8%)		
Not really necessary	0 (0.0%)	8 (26.7%)	12 (37.5%)	25 (20.5%)	2 (15.4%)		
Totally unnecessary	1 (33.3%)	0 (0.0%)	0 (0.0%)	8 (6.6%)	0 (0.0%)		

P-value is significant at ≤ 0.05

Table 4. Showing the Determinants of Cancer Screening Decision making Processes of Respondents

Factor	Characteristic			Chi-square value	p-value
	How likely would you submit yourself for Cancer screening?				
	Unlikely	Likely	Extremely likely		
1) Average monthly income					
≤ ₦50,000	14 (7.0%)	22 (11.0%)	6 (3.0%)	20.328	0.009*
> ₦50,000 - ₦100,000	19 (9.5%)	60 (30.0%)	11 (5.5%)		
> ₦100,000 - ₦200,000	15 (7.5%)	34 (17.0%)	3 (1.5%)		
> ₦200,000 - ₦500,000	4 (2.0%)	7 (3.5%)	1 (0.5%)		
> ₦500,000	0 (0.0%)	1 (0.5%)	3 (1.5%)		
2) Is Cancer screening widely known in your opinion?					
Yes	21 (10.5%)	33 (16.5%)	3 (1.5%)	6.836	0.033*
No	31 (15.5%)	91 (45.5%)	21 (10.5%)		
3) Is Cancer screening recommended after 75 years of age?					
Extremely necessary	10 (5.0%)	2 (11.0%)	10 (5.0%)	17.867	0.007*
Very necessary	6 (3.0%)	32 (16.0%)	2 (1.0%)		
Necessary	24 (12.0%)	34 (17.0%)	4 (2.0%)		
Unnecessary	12 (6.0%)	36 (18.0%)	8 (4.0%)		
4) Is it necessary for healthcare workers to be more involved in Cancer screening?					
Extremely necessary	18 (9.0%)	51 (25.5%)	14 (7.0%)	14.852	0.021*
Very necessary	15 (7.5%)	47 (23.5%)	6 (3.0%)		
Necessary	11 (5.5%)	23 (11.5%)	3 (1.5%)		
Unnecessary	8 (4.0%)	3 (1.5%)	1 (0.5%)		
5) How necessary do you think Cancer screening and awareness programs should be in MHL?					
Very necessary	46 (23.0%)	120 (60.0%)	24 (12.0%)	6.765	0.034*
Unnecessary	6 (3.0%)	4 (2.0%)	0 (0.0%)		

P-value is significant at ≤ 0.05

Table 5. Showing the Role of the Health Belief Model in Cancer Screening

Health Belief Model	High	Medium	High
Perceived Susceptibility	60 (30.0%)	65 (32.5%)	75(37.5%)
Perceived Severity	116 (58.0%)	68 (34.0%)	16(8.0%)
Perceived Benefits	146 (73.0%)	43(21.5%)	11(5.5%)
Perceived Barriers	78(39.0%)	92 (46.0%)	30(15.0%)
Cues to action	102(51.0%)	83 (41.5%)	15 (7.5%)
Self-efficacy	88 (44.0%)	88 (44.0%)	24 (12.0%)

In assessing the cancer screening uptake rate of the respondents and factors influencing their utilization of cancer screening services, an ordinal multinomial logistic regression model was fitted on the associated variables.

The choice for using this model was because of the ordered nature of the levels of the dependent variable (“How likely would you submit yourself for Cancer screening?”).

Average monthly income, Universality (i.e., Is cancer screening widely known in your opinion?), Perception7 (i.e., Is cancer screening recommended after 75 years of age?), Perception12 (i.e., Is it necessary for healthcare workers to be more involved in Cancer screening advocacy?) and Perception13 (i.e., How necessary do you think Cancer screening and awareness programs should be in MHL?) were all taken as predictor or independent variables.

For the response or dependent variable, the “unlikely” level was taken as the reference or base level; “No” response for the universality variable was considered as base level, “Unnecessary” response was considered as base level respectively for Perception7, Perception12, and Perception13 variables while the least income group (i.e., ≤ ₦50 000) was considered as the base level for average monthly income (Table 6).

Table 6. Showing Effects of some Correlated Predictors using Multinomial Logistic Regression

Variables	Categories	Estimate	Std. Error	Wald	p-value
Intercept (Level = Likely)		0.674	0.896	0.566	0.452
Intercept (Level = Extremely likely)		4.107	0.935	19.304	< 0.001
1) Is Cancer widely known in your opinion? (Universality)					
	Yes	-0.705	0.344	4.189	0.041
	No (ref)	-	-	-	-
2) Is Cancer screening recommended after 75 years of age? (Perception7)					
	Extremely necessary	0.099	0.454	0.048	0.827
	Very necessary	0.039	0.449	0.008	0.930
	Necessary	0.724	0.393	3.392	0.066
	Unnecessary (ref)	-	-	-	-
3) Is it necessary for healthcare workers to be more involved in Cancer screening advocacy? (Perception12)					
	Extremely necessary	1.530	0.734	4.349	0.037
	Very necessary	1.409	0.738	3.639	0.056
	Necessary	1.184	0.773	2.346	0.126
	Unnecessary (ref)	-	-	-	-
4) How necessary do you think Cancer screening and awareness programs should be in MHL? (Perception13)					
	Extremely necessary	0.818	0.788	1.079	0.299
	Very necessary	1.040	0.797	1.703	0.192
	Necessary	1.325	0.851	2.423	0.120
	Unnecessary (ref)	-	-	-	-
5) Average monthly income					
	>₦500 000	2.571	1.263	4.146	0.042
	> ₦200 000 - ₦500 000	-0.385	0.689	0.313	0.576
	> ₦100 000 - ₦200 000	-0.378	0.442	0.733	0.392
	> ₦50 000 - ₦100 000	0.187	0.400	0.218	0.640
	≤ ₦50 000 (ref)	-	-	-	-

(ref) is reference category; p-value is significant at ≤ 0.05

Discussion

Prevention programs should not assume health workers will go for cancer screening rather health workers should be one of the major target groups for prevention so that they do not become neglected catering to our health and well-being of ours while being too busy or nonchalant about their health as seen in this study and cited in other studies as well [11-13, 31, 32, 35]. Apart from the fact that health workers are not different from non-health workers in their cancer screening uptake level, the proportion of respondents who have had cancer screening done in this study was very low.

The uptake of cancer screening in this study was seen to be 2.5% which was extremely low among the health workers. Previous studies conducted among groups in Nigeria reported low values of 13.5% by women presenting for screening [19]. Ugwu and colleagues reported an uptake of 14.1% among female health workers in Southeastern Nigeria [20]. Oche and colleagues reported uptake of 10% among health workers in Northern Nigeria [13]. Ehiemere and colleagues also reported uptake of 26.4% in a more recent study among health workers [12]. Similar patterns of low uptake of cancer screening had also been observed in studies among the non-health workers. Owioye and colleagues reported uptake of 13% among Federal civil servants in the Niger Delta region of Nigeria [21]. Hyacinth and colleagues reported uptake of 10% among federal civil servants in North Central Nigeria [22].

Furthermore, perceiving any value in preventive behavior and trying to reduce the barriers to preventive behavior can seriously improve the likelihood of adopting health behaviors [23, 27]. The HBM comprises five main constructs, including perceived susceptibility, perceived severity, perceived benefits, perceived barriers, and cues to action which effect health behaviors [24]. Additionally, the Health Belief Model (HBM)

suggests that a *cue or trigger* is needed for motivating participation in health behaviors [23, 25]. Cues to action - feelings, strategies, or information sources that support the implementation of a behavior can be internal (e.g., pain, symptoms) or external (e.g., events or information from close persons, various media, or healthcare providers) [25-27].

These are strongly linked with non-attendance and low uptake levels in cancer screening [25, 28, 29]. In a colorectal screening study, it was discovered that the desire for screening was higher in those who reported worrying about cancer as opposed to people who had reported feeling uncomfortable at the mere thought of cancer [28, 29]. Studies have shown that fear combined with high-efficacy health information promotes positive health behavioral changes [31] whilst fear with low-efficacy messages creates a defensive response [27, 29, 30].

It is surprising and worrying to find that health workers are not different from non-health workers in their uptake of cancer screening, as revealed in this study. As health workers, due to their knowledge and occasional role in the management of cancers, one would expect that more health workers will undertake cancer screening [31]. This, however, is not always the case, as revealed by this study. Being a health worker does not always translate to the fact that a person will go for regular health checkups or cancer screening tests [31, 32, 33, 35,36], and this constitutes a huge *knowledge-practice gap*. This was also observed in similar studies [21, 29, 32-34].

Recommendations

Improvements in uptake may be achieved by looking into the cost of these cancer screening tests and finding a way of making them widely known as well as more affordable and accessible to the populace. Clients should be given perceptions of the wider health service rather than screening invitation materials or methods alone.

The management of medical institutions should be embarked on regular hospital-wide grand round sessions on the importance of cancer screening, awareness of available local screening programs, and the need for every staff to actively campaign and ensure that the patients and clients encountered in the course of clinical practice or care are encouraged to go for cancer screening, i.e., adopting the “see and screen policy”. There should be active awareness on all the locally available screening programs within the medical institutions by the information and IT units of the hospital, which will be in the form of posters, billboards, handbills, in calendars, text messages, and electronic board displays.

Also, for certain groups (youths, market women, and the elderly), there may be a benefit in including key community figures (e.g., youth role models, character actors, local religious leaders etc.) in communicating specific health agendas. Government involvement in health is paramount for any sustainable achievements.

Conclusion

Urgent needs for more awareness programs on cancer and cancer screening services even among health workers are vital. Cancer screening services need to be inculcated into the

routine screening programs from age 40, being available, affordable, and accessible at all levels of the healthcare delivery system to reduce the incidence of cancer.

Improving the knowledge about cancer and awareness of cancer screening centers and programs could also improve the uptake of screening behaviors even amongst health workers.

Targeting healthcare workers who have never been screened before and addressing their fears and concerns around embarrassment cost implications may be other areas for intervention. Misconceptions that discourage people from screening services are very significant issues that need to be dealt with in order to increase the number of people who get screened timely.

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Conflict of Interest

The author declares that there is no conflict of interest exist.

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