RESEARCH ARTICLE

Cervical Cancer Screening in Iranian Women: Healthcare Practitioner Perceptions and Views

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Abstract

Background: Although regular screening for cervical cancer with the Papanicolaou test is an important element for reducing the incidence and mortality of cervical cancer, the actual screening program in Iranian women is not sufficiently comprehensive at present. The purpose of this study was to explore healthcare provider perceptions of factors affecting cervical cancer screening in Iranian women. **Methods:** In this qualitative study performed from September 2015 to August 2016 in Hamadan, Iran, we conducted semi-structured in depth interviews with 14 healthcare providers selected purposefully. All interviews were recorded, transcribed and analyzed according to a conventional thematic analysis approach. MAXQDA10 software was employed for data analysis. **Results:** Four themes were extracted from data: "Inefficient management of cervical cancer screening process, Personal and professional characteristics of health care providers, Individual barriers and facilitators, Need for health system authorities to pay attention". **Conclusion:** Increased official attention to screening, and identifying challenges and providing strategies based on these challenges will help in achieving a successful screening program. It is necessary to attend to professional features of medical science students and increase the skills of interaction with clients in addition to academic training. Efforts should be made to increase trust in healthcare providers regarding the Pap test and receptiveness of society to this screening modality through informing the public, with encouragement through the media.

Keywords: Papanicolaou test- healthcare practitioners- Iran

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Introduction

Cervical cancer with 528,000 new cases each year is the second most common cancer for women in the world. Almost 70% of the global burden of the disease is in less developed regions, cervical cancer could have very devastating effects on human, social and economic resources (International Agency for Research on Cancer, 2013); doing regular pap test is the best way to prevent cervical cancer (Augusto et al., 2013). In developing countries cervical cancer screening programs have been less effective (Novaes et al., 2015).

In Iran the incidence of this cancer is 9.56 cases per 100,000 people per year (Iran Ministry of Health, 2012). Despite the availability of a cervical cancer screening program in Iran, Iranian women do not participate in the screening program as recommended (Farajzadegan et al., 2012; Rakhshani et al., 2013). Some studies in Iran have shown factors affecting on cervical cancer screening from women's view; they have reported factors such as knowledge, healthcare providers or family members advice, cheap and easy access, social norms, and risk becoming serious as facilitators and factors such as lack of awareness, lack of any problem, fear of examination and diagnosis, embarrassment, lack of doctor's advice, pain and misconceptions as barriers (Shakibazadeh et al., 2009; Jalilian et al., 2011; Sabery et al., 2012). No comprehensive study has ever assessed the healthcare providers, views and perceptions about factors influencing cervical cancer screening in Iranian women. Healthcare providers have an important role in the prevention and management of cervical cancer (World health organization, 2014). They are an essential component of any program that seeks to increase screening rates in women (Jia et al, 2013).

Explanation of healthcare providers, perception about cervical cancer screening, will help us to better understand the factors influencing cervical cancer screening, knowing these factors from various aspects will be useful in improving related programs and developing effective interventions to increase screening for cervical cancer. Given that recognition of a phenomenon from the view of people who experience it is possible with the use of qualitative methods, this qualitative study was done with the aim of explaining health care providers' perception of the factors affecting cervical cancer screening in Iranian women.

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Materials and Methods

This qualitative study was done from September 2015 to August 2016 in Hamadan, Iran. Pap smear is performed by gynecologists and midwives in Iran, as well as family health experts who consult with women about pap test in health facilities, so in this study, 14 participants purposefully participated. All participants were female and married. Participants' characteristics are shown in Table 1.

This study was approved by the Ethics Committee of Tehran University of Medical Sciences (code: 1395.2776). The researcher referred to participants' work place; inclusion criteria were willingness to participate in the study and having at least one year of experience in providing health services to women in private clinics or health centers. No one refused participation in the study. All participants were informed of their right to confidentiality of information, anonymity, and the right to withdraw from the study at any time. Informed written consent was obtained from all participants. Demographic characteristics of participants were collected using a self-reported form. A semi-structured interview guide with open-ended questions was used for data collection. Examples of interview questions include:

What are the barriers and facilitators of regular cervical cancer screening? How can we achieve regular cervical cancer screening in women? Interview structure was developed based on primary data obtained. We used probing questions to obtain more information and to clarify the content of interviews, such as: can you explain more? All interviews were conducted by researcher. All interviews were recorded, with the consent of the participants. Interviews were continued until data saturation was reached; that is until any new concept from interviews was not reached. The interview times were between 15 and 60 minutes.

Data analysis

Data were analyzed according to conventional thematic analysis approach (Graneheim and Lundman, 2004): at first the researcher transcribed the entire content of the interviews then read them several times from beginning to end. Entire contents of the interviews were analyzed as the unit of analysis and were coded. Words, sentences or paragraphs were considered as meaning units. Then meaning units according to their concept were conceptualized and were called by code. Codes were compared in terms of similarities and differences then classified codes were labeled under more abstract categories, finally, by comparing the categories, main themes were obtained (Table 2). MAXQDA10 software was used to help data analysis.

Trustworthiness

Trustworthiness of the research was assessed using criteria proposed by Guba and Lincoln (Polit and Beck, 2004). Researcher allocated enough time (11 months) to collect data and interact with participants, respectively. Maximum diversity sampling technique was used for collecting data (in terms of age, work experience, work setting and health care provider's type). All the research steps were reported and recorded in detail. Member checking, internal checking and external checking were done as follows: interviews, text with primary codes was presented to participants and their comments were applied. All coding processes were evaluated by the research team to ensure coding accuracy, and also coding process was presented to an external researcher and her corrective comments were applied after discussion with the research team.

Results

Data analysis led to creation of four themes. Subcategories, categories and themes are shown in Table 3.

Inefficient management of cervical cancer screening process

This theme includes two categories "Insufficient attention of health system to cervical cancer screening" and "Insufficiency in providing services". Participants noted that as maternal health care is important for health systems, cervical cancer screening should be important. They believed factors such as: visit, doing test and laboratory costs and also lack of devices such as speculum, are barriers for doing Pap test.

"Our focus is more on maternal program and pregnant women, the system focused more attention on maternal program, it is very expansive and time consuming". (Participant 7, 45 years, 23Y work experience, public health center)

"Impossibility of follow up of the population covered by health facilities", "Receiving a service based on clients' referral" and "Health facilities overcrowding" are important factors which influence on services delivery by public health facilities. One of the problems is that people do not trust the public health centers so there is less interaction with healthcare providers and there is no probability of educating them through public centers. Another problem is that the region that is covered by some health facilities is very vast and access to people and follow-up is difficult or facilities work hours are the same as public offices so access to these facilities is hard for employed women. In public health centers there isn't any follow up for people that don't refer to these facilities despite having health records. One challenge of health service delivery is overcrowding of the centers, which is a barrier for communication and enough explanation about Pap test for clients.

" about 50,000 to 60,000 families are covered by our center but most of them don't have health records here and many people are not willing to receive any service from public health facilities, our region is so large, there isn't access to them and most people are at work in the morning", (P13,44y, 13y work experience, family health expert).

Personal and professional characteristics of health care providers

From the perspective of participants, work commitment is an effective factor on advising for screening by healthcare providers. The sense of responsibility for the

Table 1. Characteristics of Participants in the Study

Participants, number	14
Age	41.1 (28-54)years
Education	
Bachelor in Midwifery	10
Master of Science in Midwifery	1
Family Health Expert	2
Gynecologist	1
Work experience	16.6 (3-26)years
Work place	
Public health care facility	9
Private clinic	5

health of patients, valuing clients and allocated time for them and sensitivity to work, having a comprehensive view to women's health and to what extent they know training, advising and informing clients in the field of screening as their duty are characteristics of healthcare providers that affect their performance and quality of care.

"Notification by doctor is very important, we must give face to face training; the fact is that when a patient refers to us with a chief complaint we only solve that problem and don't talk about her overall gynecologic health", (P 14, 54 Y, 25Y work experience, gynecologist, private health center).

"Healthcare providers, ability for patient preparation" by Sensitizing clients to Pap test, desensitization of the taboo of Pap smear and appropriate interaction is an effective factor for testing acceptance in clients. Only a small recommendation without explanation is not effective, providing a full explanation about cervical cancer, its screening and how the test is performed is important and also emphasizing to clients about doing the test is a critical factor for acceptance and increases probability for doing test. Normalization of the issue to clients and an honest, friendly, compassionate and empathetic encounter with clients are important factors for patients accepting to do the test.

"We should emphasize the importance of the test to patients, only repeating a sentence "come and do this test" isn't effective at all", (P12, 41y, 20y work experience, public health center).

Trusting pap test, testing necessity from healthcare provider's perspective varies. This attitude can be effective on healthcare providers, performance about advising or emphasis for screening. Some participants noted that they do not trust the test, but in view of some participants, it is a valuable test because it forces us to examine women and if there are gynecologic problems they are diagnosed and treated. Testing necessity from healthcare providers, view is an important factor that affects on clients training, emphasis and encouragement by healthcare providers; generally, healthcare providers selectively choose people for advising about Pap test.

"I do not trust its answer because I've seen it hasn't done much good, most of the time the answer will be healthy, sometimes I predicted the laboratories answers, because of this the test isn't very necessary in my view", (P 11, 43 Y, 20Y work experience, public health center) In return another participant said:

"I advise women to do it but I do not insist because its cost, they may assume that my insistence is for my own profit, but if in their family someone has had cancer or the patient herself has had recurrent inflammations I certainly emphasize that they do the test", (P9, 36 Y, 14Y work experience, public health center).

Individual barriers and facilitators

Most participants noted financial capability, negative feelings from vaginal examination such as fear of the examination, embarrassment, invasion of personal privacy and fear of cancer screening as the inhibiting factors. One of the other factors is hardscrabble, because doing Pap test needs time to devote to referring, doing the test, taking the sample to the laboratory, getting the answer from the laboratory and then again referring for showing the answer, so busy persons refuse to do testing. Some people think they are not at risk for cancer due to not having risk factors and it is an important issue affecting screening behavior.

"Most clients say, my mother or my sisters don't have cancer, they think cancer is hereditary only or some people say we aren't multipartner so don't do the test", (P4, 34 Y, 5Y work experience, private health center)

According to what participants say, if a person is aware about Pap smear, purpose of doing it, its advantages and consequences of not doing it, she will do the test and it is not correlated to her education level. From the view of participants, sensitivity of women to their health and intention for doing test are important factors.

"Some clients have a college education, are pretentious but don't have health data, it is not related to her education level, their health practice is poor", (P 12).

Need for health system authorities to pay attention

Participants believed that doing regular cervical cancer screening in women requires health system authorities' attention; one of the health system authorities' effective measures on this issue is sponsoring, funding and providing facilities for cervical cancer screening. Authorities' desire and advertising for doing the test are effective factors for a successful program. Improving the quality of testing is a factor to increase the confidence of health personnel to test and increase motivation for further advice to clients.

"We should enhanced the quality, if the quality

Table 2. An Example of Analysis Steps

Meaning unit	Code	Subcategory	Category	Theme
"When we talk with them honestly and in a friendly manner, they accept… "(participant 2, midwife, 50 years old, 26 years work experience, public health center)	Honestly talk Friendly talk	Appropriate interaction	Ability for patient preparation	Personal and professional characteristics of health care providers

Table 3. Subcategories, Categories and Themes are Extracted from the Data

Subcategory	Category
Theme 1: Inefficient management of cervical cancer screening process	
Poor attention of authorities to cervical cancer screening	Insufficient attention of health system to cervical cancer screening
Lack of equipment	
The cost of pap smear	
Impossibility of follow up of the population covered by health facilities	Insufficiency in providing services
Health facilities overcrowding	
Receiving a service based on clients, referral	
Theme 2: Personal and professional characteristics of health care providers	
Work commitment	Professional ethics of healthcare providers
Conscientiousness	
Having comprehensive approach to clients health	
Sensitized clients to pap test	Ability for
Desensitization of the taboo of Pap smear	Patient preparation
Appropriate interaction	
Trust in Pap test	Healthcare providers ' attitudes towards cervical cancer screening
The value and testing	
Necessity from healthcare provider's view	
Theme 3: Individual barriers and facilitators	
The lack of financial capability	Inhibiting concerns
Negative sense of the vaginal examination	
Being busy	
Fear of cancer diagnosis	
Not having risk factors	
Awareness	Individual preparation
Individual will	
Theme 4: Need for health system authorities to pay attention	
Attention	Advocacy, supervision and follow up on cervical cancer screening
Follow up	
Advocacy	
Supervision	
Providing facilities	
Public education	Making sensitivity in community
Information and advertising	
Training healthcare providers	Increasing healthcare providers, ability
Increasing healthcare providers, motivation	

increased, maybe it would be welcomed more, then I would encourage more women to do testing and I would emphasize it more", (P6, 39 y, 17 y work experience, public health center).

One factor involved in testing is awareness and sensitizing people to the problem. Education and informing people in different ways such as public education, men's training, education in schools, premarital education, education in offices and mosques, education through the media, pamphlets and educational videos in health centers are effective ways that result in people being constantly exposed to screening information and in these ways it can to help to increase people's sensitivity to screening.

"There must be public education through the media, they must speak about cervical cancer screening more, men should be made aware, community must be informed, this curtain that exists in society should be removed", (P 9).

Participants believe that health care providers need to be trained both academically and on proper interaction with clients. Correct sampling techniques should provide better training at university and then by holding retraining courses for health care providers, they will be aware of new techniques and other items about cervical cancer screening. An important factor that has an effect on

healthcare providers' intention and their efforts in this field is encouraging and motivating them to perform this action.

"Maybe if a percentage was assigned to midwives for doing the test, they would become eager to do it, but now no one urges anyone to do it and considers it as additional work ",(P3, 39 y, 15 y work experience, private clinic).

Discussion

In this study, health professionals, perceptions and views about cervical cancer screening in Iranian women have been explained. Four themes were extracted from data.

One extracted theme was "Inefficient management of cervical cancer screening process". In our study it was found that although the tests were done in health facilities, there isn't a screening program that covers all the population. Inadequate supervision on healthcare providers' practice was another noted barrier in our study. Maseko et al. (2015) stated lack of policies and programs for cervical screening and failure to adequately monitor the health workers are screening obstacles. Our results show one of the challenges of serving is people's mistrust of public health centers. Mistrust of health personnel and health system is a barrier for doing the test (Daley et al., 2011). In this study lack of access to health services due to widely covered region, large population of covered region, health facilities work hours, busy and crowded centers are factors affecting the provision of services. McCree et al. (2015) found limits on the provision of services and low resources rather than social and economic factors have a greater impact on failure to follow screening program. Our result also showed for receiving screening service, women have to refer voluntarily and there isn't any call by health providers for testing. Maar et al. (2013) found lack of screening system based on patient recall in Canada is a barrier to screening.

In our study another obtained theme was "Personal and professional characteristics of health care providers", work commitment, conscientiousness and having comprehensive approach to women's health are features that will enable healthcare providers to have a more effective practice for clients, education, guidance and counseling. Mostafanegad (2012) states that work commitment is related to employee performance; lack of commitment and well-trained caregivers are health system challenges (Maseko et al., 2015). According to the result of the study, commitment and sense of responsibility for the health of women must be established from the beginning of training in healthcare providers. Our result showed that only recommending screening is not effective and it requires healthcare providers provide explanations on cervical cancer screening and emphasis. Wiley and Irwin (2012) stated that by healthcare providers' recommendation only 10-20 percent can lead to behavior change while motivational interviewing increases the incentive in people and is more effective. Considering the embarrassment of exposing the genital organ in women is a part of the culture in some countries (Kivuti-Bitok et al., 2013) including Iran, normalization of the cervical cancer screening by healthcare providers for clients could be a great help in overcoming this obstacle. Screening process is intrusion of privacy for a woman, healthcare providers supporting and encouraging women to do the test are the facilitating factors for screening in women. In this study it was found that healthcare providers' attitude about the Pap test is effective on their motivation to provide encouragement and advice to women. Healthcare providers, negative attitude towards the process of screening for cervical cancer reduces the possibility of encouraging women to do the test (Kivuti-Bitok et al 2013).

"Individual barriers and facilitators" was the third extracted theme. Other studies have mentioned poverty and financial problems of barriers in testing, delays in screening or follow-up treatment (Ersin and Bahar, 2013; Nolan et al., 2014). Other studies showed that negative feeling about vaginal examination is greatly influenced by culture (Kivuti-Bitok et al., 2013), most studies cited male gender of healthcare providers is a barrier for screening (Williams et al. 2013; Huchko et al., 2015). In Iran often this test is done by midwives and gynecologists that are women but still women are embarrassed, it is mostly caused by cultural training. Tay et al., (2015), Rosser (2015), Augusto et al., (2013) noted lack of time, job responsibilities and taking care of children as the obstacles to testing in women. Girianell et al., (2014) found the most common barrier to adherence to screening program was risk perception.

In our study, knowledge was cited as a trigger for testing. Knowledge about screening is more important than education level (Lyimo and Beran, 2012). Based on Behavioral Intention Model, individual decision and demand are important factors to change behavior (Nasirzadeh et al., 2013). In our study also individual decision and demand were cited as effective factors for screening.

The last theme obtained from the data was "Need for health system authorities to pay attention"; development of national guidelines is a key factor for development of cervical cancer screening program (McCree et al., 2015); government spending, cost for health services have a direct correlation with increased screening, it is due to better equipment, better education and training providers and more educated women (Akinyemiju, 2012); in this study participants believed, budget should be allocated for education and publicity for cervical cancer screening. Implementation of effective screening programs requires the workforce be placed under supervision, no record in file and not following the clients, are obstacles for the wide coverage of the female population (Maseko et al., 2015). In our study it is shown that adequate control on the performance of healthcare providers will lead to their performance being improved, also assessment of patients screening history is an influential factor for better implementation of screening program. Data showed receiving a screening service based on clients voluntarily referring is one of the problems for screening. Tracking people based on clinics is one of the most effective measures to increase screening (Garcia et al., 2016). The results showed dissemination of information, in the field of cervical cancer screening for all people and in various ways and to various groups is a factor for successful

implementation of screening program. Dissemination of information and increased audio signals are important and should exist in the community for all women not only for specific groups (Tay et al., 2015). Our study also mentioned the importance of public awareness, not only for women, but also making men more sensitive to the issue and support from spouses can be effective in screening. Lack of men's involvement in screening program is a barrier factor (Munthali et al., 2015). Inadequate community sensitivity and general mobilization are the barriers for screening (Mwaka et al., 2013).

This study revealed that Individual and structural factors are effective on women's participation in the screening program in Iran. Increased official attention to screening, identifying challenges and providing strategies that are based on these challenges will help in achieving a successful screening program. Because health care providers have a critical role in screening, it is necessary attention be focused on professional features such as commitment, accountability, sensitivity to work and increasing the skills of interaction with clients, in addition to academic training. Efforts should be made to create a positive attitude and to increase trust in healthcare providers to Pap test by holding training courses to raise awareness and empower caregivers about modern techniques and the effectiveness, impact and their importance in society. Also effort should be made to increase the sensitivity of the society to Pap test through public awareness, encouragement and publicity and advertising. The qualitative nature of the study and also examining a small number of participants in only one of the cities in Iran may lead to the results not being generalized, the researchers tried to overcome this limitation by using maximum variation sampling.

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