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Utilization of Cervical Carcinoma Screening Service and Associated Factors among Currently Married Women in Arba Minch Town, Southern Ethiopia

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Abstract

Background: Cervical cancer is major public health problem worldwide which worsened in the developing world including Sub-Saharan Africa. Cervical cancer screening has been consistently shown to be effective in reducing the incidence rate and mortality from cervical cancer. But very few of eligible women undergo cervical cancer screening. The aim of this study was assess the level of utilization of screening service for cervical cancer among currently married women in Arba Minch Town.

Methods: A community based cross sectional study design was conducted among randomly selected 660 currently married women from February to March, 2015 by using interviewer administered questionnaire and analyzed using SPSS Version 21. Descriptive statistics was used to describe the status of study population and multi-variable logistic regression was used to see predictors of screening service utilization.

Result: The study indicated that only 38 (5.9%) of the respondents get screened. The most common reason for not utilizing the service was being healthy (60.02%). Age of mother greater than 30 years, perceived severity to cervical cancer, parity of more than 5 children and average monthly income of greater than 1170 ETB were significantly associated with cervical cancer screening service utilization.

Conclusion: Only few of the respondents get screened. Therefore, there is a need for creating awareness and intensifying health education provision on cervical cancer screening in the town and need to influence perceptions by targeting the women.

Keywords: Cervical cancer; Screening; Utilization

Introduction

Cervical Cancer is major cause of morbidity and mortality among women worldwide with estimated 500, 000 new patients' diagnosed and over 250, 000 deaths per year. Greater than 80% of the world's new case and deaths occurs in the developing world including Sub-Saharan Africa. Eastern Africa also remains with high incidence and mortality from cervical cancer. In Ethiopia it was estimated that 20.9 million women in 2010 were at risk of developing cervical cancer and projected that the number of new cervical cancer cases will almost double by 2025 with Estimated 7,619 annual number of new cases and 6,081 deaths every year. It accounted for 25.8% - 32% of all female malignancies [1-5].

In order to help low-resource countries like Ethiopia to improve cervical cancer screening rates, the World Health Organization (WHO) and other research agencies have evaluated and reported efficacy, effectiveness, specificity and sensitivity results of an alternative model of cervical cancer screening known as visual inspection. But In sub-Saharan Africa, there are few organized efforts to ensure that women over the age of 30 years are screened; and very few approximately 5% of eligible women undergo cytology-based screening in a 5-year period. In West African, Less than 1% of women in four countries had ever been screened [6-9].

In addition majority of cases in Sub- Saharan Africa (over 80%) were detected in late stages, which associated with low survival rates after surgery or radiotherapy. In addition, these treatment modalities may be lacking altogether, or too expensive and inaccessible for many women and left untreated, invasive cervical cancer is almost always fatal, causing enormous pain and suffering for the individual and having significant adverse effects on the welfare of their families and communities [10].

Evidence show success of cervical screening initiatives depend on high participation of the target population, which in turn is determined by the women's knowledge, perceptions, health orientations and other socio-cultural issues. It is also affected by factors including early marriage, early sexual practice, delivery of the first baby before the age of 20, too many or too frequent childbirths, multiple sexual partners and low socio economic status. Studies also show women with a history of screening had higher awareness and attitude and also women with perceived risk of cervical cancer were more likely to intend to have cervical cancer screening in the future. Several studies have showed poor knowledge of the disease in Africa. In Lagos, Nigeria only 4.3% of attendees in a maternal and child health clinic were found to be aware of cervical cancer. Similar in Kenya and Tanzania have confirmed very poor knowledge of the disease in patients. Similarly Women have limited knowledge and a negative attitude towards cervical cancer and

Pap smear screening which contributed to their non-participation in screening programs in Uganda, Botswana and Nigeria. Women in Uganda Over 80% of women having advanced disease have attitude and practices towards Pap smear screening were negative [11-16].

Ethiopian government with the stakeholders is working to increase the availability and accessibility of preventive and curative services at public health facility but attendance rate is very low. At the same time little is known about Ethiopian women's knowledge and beliefs about cervical cancer, level of screening service utilization and associated factors. Therefore, this study aims to identify level and factors associated with utilization of screening service for cervical cancer among currently married women in Arba Minch Town.

Methods

Study design

Community based cross sectional study design was carried out from February –March, 2015 in Arba Minch town administrative which is located in the southern part of Ethiopia.

Sampling method and sample size determination

The sample size was determined by using single population proportion formula by considering the following assumption: Prevalence of awareness on cervical cancer service as 50%, level of significance (α = 5%), 4% marginal error and by adding 10% of non-response rate which gave the final sample size to be 660. Then, Simple random sampling technique was used to select currently married women in Arba Minch town.

Data collection instrument and procedure

Data was collected using interviewer administered pretested standardized questioners. The questionnaire was prepared in English language. The English version was translated to the local Amharic language and back to English to assure consistency of the tool. Data collection instrument was developed by considering the objective of the study, the items consists of socio-demographic characteristics, knowledge on cervical cancer (out of 18 questions that used to assess knowledge, if the respondent answers <60% considered as not knowledgeable and if ≥ 60% considered as knowledgeable), attitude towards cervical cancer screening (out of 20 questions put on Likert's scale, those who scored ≥ 60% were considered to having positive attitude and those who had <60% were considered to have negative attitude) and practice towards cervical cancer screening. The data collectors and supervisors were trained for three days (two days before the pretest and a day after the pretest). After pretest discussion was carried out with facilitators and some corrections and changes were made on the questionnaires.

Data analysis

The completed questionnaire was checked for completeness, consistency and entered in to EPI Data version 3.1 software programs and exported to SPSS version 21software for analysis. Univariate analyses were done using frequency, percentage, tables and charts. Associations between dependent and independent variables were assessed using logistic regression. Multivariate analysis was done using to assess individual effect of variables on cervical cancer screening services utilizations. Crude and adjusted odds ratio with 95% confidence interval was calculated using binary logistic regression; p-value less than 0.05 was considered as statistically significant.

Ethical clearance

Ethical clearance was obtained from Ethical Review committee of Jimma University College of Public Health and Medical Sciences. Permission was obtained from both Gamo Goffa Zone Health Department and Arba Minch Town Health office. The purpose of the study was clearly explained to the participants and Informed consent was obtained from each study participant. Participants were also informed their full right to withdraw or refuse to participate in the study.

Result

Socio-demographic characteristics

A total of 643 currently married women were participated. Around one third 174 (27.1%) of the respondents were in the age range of 20-24 year with the mean age 40 (12 years). Majority of the respondents have attended post primary education 483 (75.1%), start sex at age ≥ 18 year 360 (56%), married at age ≥ 18 year 476 (74%) and were multi-para 496 (77.1%). Regarding occupation around half 300 (46.7%) were housewives; all respondents were non-smoker and had no family history of cervical cancer (Table 1).

Knowledge of study participants on cervical cancer screening

Two hundred thirty four (36.4%) and 224 (34.8%) of the respondents have ever heard about cervical cancer and cervical cancer screening service respectively. The main sources of information were mass media. Among ever heard about cervical cancer screening 154 (65.8 %) were not knowledgeable and 80 (34.2%) were knowledge about cervical cancer screening service respectively.

Socio demographic Variables	N (%)
Age	
15-19	12 (1.9)
20-24	174 (27.1)
25-29	155 (24.1)
30-34	86 (13.4)
35-39	47 (7.3)
40-44	80 (12.4)
45+	89 (13.8)
Educational status	
Illiterate	118 (18.2)
Primary education	43 (6.7)
Post primary	482 (75.1)
Average monthly income (ETB)	
≥1170	392 (61)
<1170	251 (39)
Occupation	
Housewife	300 (46.7)
Government employee	213 (33.1)
Farmer	82 (12.7)
Others	48 (7.5)
Parity	
<5	550 (85.5)
≥5	93 (14.5)
<18 years	250 (38.9)
≥18 years	360 (56)
Don't remember	33 (5.1)
Age at mariage	
<18 years	132 (20.6)
≥18 years	476 (74)
Don't remember	35 (5.4)

Table 1: Socio-demographic characteristics of mothers, Arba minch town, Southern Ethiopia, February 2015 (N=643).

Attitude of study participants towards cervical cancer screening

Among the respondents 297 (46.2%) have negative attitude towards cervical cancer screening respectively. Around 41.4% of participants had high perceived susceptibility. With regard to risk of exposure, majority of the respondent's did not know their level of risk on which only 18.4% and 5.1 % reported small and big risk respectively. About 30.3% of women had high perceived severity. Third of the participants felt that cervical cancer is more severe than other forms of cancer. Up to 25.7% of them thought that there might have a good chance of cure. About 48.2% had high perceived benefits. More than third of them felt that screening testing detects pre-cancerous cells, that they satisfied after having a screening test (55.2%) and having a test is valuable (97.2%) and give them a sense of control (53.7%). About 49% had low perceived barriers. For emotional barrier, more than a third of the participants (37.9%) disagreed that having screening test is painful. Also 41.2% of the participants disagreed that having a check might unpleasant and/or embarrassing, most of the participants agreed that screening is necessary even if there were no signs and symptoms (71.5%). They also disagreed with the statement that it is unnecessary to go only for screening test (85.8%) and 45.4% disagreed that going for screening test was too expensive. Around (62.1%), (58.8%), (54.6%) respondents believed that screening is pain full, unpleasant/or embarrassing and too expensive respectively.

Utilization of cervical cancer screening

Majority (94.1%) of the respondents did not utilize cervical cancer screening service. The majority (60.02%) mentioned being healthy for not utilizing.

Factors associated with utilization of cervical cancer screening

The effects of different independent variables were tested for utilization of cervical cancer screening using logistic regression analysis. Among the variables parity, marital age, average monthly income, age group, educational status, perceived severity to cervical cancer and perceived benefits of cervical cancer screening were associated in bivariate analysis but age at first sex, income condition, knowledge status, perceived susceptibility, perceived barriers to cervical cancer screening and occupation were not associated with ever screened. And finally in order to control confounding factors a multivariable analysis was used. Those variables having P-values less than 0.25 in bivariate analysis were included in multivariable analysis. Among variables age of the respondent, perceived severity to cervical cancer, parity and average income were independently associated with ever screening for cervical cancer screening.

The odds of ever screening for cervical cancer was 6 times higher for those who perceive severity to cervical cancer than those who do not [AOR=6.25 (2.66, 11.71)]. Those women who have <5 children were 79% less likely to be screened than those women than those who had ≥ 5 children [AOR= 0.21 (0.06, 0.70)]. The odds of ever screening was 4 times higher for those who with average monthly income ≥1170ETB than those who with average monthly income <1170ETB (AOR=3.59 (1.22, 10.59).The odds of ever screening was 8 times higher for those whose age is ≥30 years than those whose age is <30 years. [AOR= 8.18 (3.10, 21.53)] (Table 2).

Discussion

This community based study has attempted to identify the level and factors associated with utilization of screening service for cervical cancer among currently married women in Arba Minch Town.

Cervical cancer awareness was very low in this study because majority of the study participants could not respond to questions to cervical cancer awareness. Among ever heard about cervical cancer screening (65.8%) were not knowledgeable and (34.2%) were knowledgeable about cervical cancer screening service. This finding is in line with a study conducted in Northwest Ethiopia where about only 31% were knowledgeable. About 53.8% of the respondents have positive attitude towards cervical cancer screening respectively. This finding is lower than that of a study conducted in Nepal, Zimbabwe where more than 85% and 80% of women had positive attitude towards screening. Of those who had ever heard about cervical cancer screening only 5.9% of the respondents get screened. This finding is in line with other studies conducted in Addis Ababa 6.5%, Korea 6% and South Africa 9.8% [4]. This finding is far lower than that of a study conducted in Kenya 12.3%. All of those studies reported that still large numbers of mothers are not utilizing the cervical carcinoma screening.

The most prevalent reasons mentioned for non-screening were being healthy (60.0%) followed by lack of awareness (21.8%). This finding is higher than that of a study conducted in Korea and Kenya where 31 and 42% mentioned absence of symptoms. It can be explained as the facts that when people are healthy they don't bother about preventive services as they have other competing problems. It is seen as generally not important [17-21].

Mothers' age had significant association with cervical cancer screening. Use of the service was significantly associated with mother's age greater than 30 years were about eight three times more likely to use the service than those whose age is less than 30 years. A study in Hong Kong Chinese women is not similar with the current study; it shows younger participants (37 years), were more likely to attend cervical screening [13]. The explanation could be younger mothers were more likely educated and better access to information than older mothers, which is not the case in this study. Perceived severity was significantly correlated with cervical cancer screening. This finding was consistent with the study done in China and Kenya [13,22] that cervical screening was significantly correlated with health perception. Those women who have <5 children were less likely to be screened than those women than those who had ≥5 children. Different studies show that multiparty is strongly related to the development of cervical cancer, there is also a need to focus on older and grand multiparous women.

Variables	Utilization of cervical carcinoma screening			
	Yes	No	COR 95%CI	AOR 95%CI
Age group				
≥30	29	257	4.36 (2.03, 9.37)	8.18 (3.10, 21.53)
< 30	9	312	1	1
Average monthly income				
≥1170	31	361	2.99 (1.29, 6.90)	3.59 (1.22, 10.59)
<1170	7	244	1	1
Parity				
<5	23	527	0.22 (0.11,0 .45)	0.21 (0.06, 0.70)
≥5	15	78	1	1
Perceived Severity to cervical cancer				
Yes	30	159	1.02 (.05, 4.83)	10.85 (6.66, 37.21)
No	8	446	1	1
Perceived susceptibility to cervical cancer				
Yes	32	292	1.54 (0.27, 1.07)	2.099 (.76, 5.73)
No	6	313	1	1

Table 2: Factors associated with cervical cancer screening among mothers, Arba minch town, Southern Ethiopia, February 2015 (N=643).

Conclusion

This study revealed that only few of the respondents get screened with majority mentioned for non-screening as being healthy. Poor knowledge of cervical cancer was observed that required more work to be done to increase knowledge of mothers on cervical cancer and associated risk factors. Among variables age of the respondent, perceived severity to cervical cancer, parity and average monthly income were independently associated with ever screening for cervical cancer screening. Therefore, more efforts are required to educate women and families' on cervical cancer screening.

Acknowledgement

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