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Research Article

Cervical Cancer and Screening Method: Knowledge, Attitude and Practice among Women Living in Adama Town

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ABSTRACT

Introduction: Globally, cervical cancer is the third most common cancer in women. In 2008 there were an estimated 529,000 new cases. The majority of cervical cancer deaths occur in women who are never screened or treated and in women with well-described sexual and reproductive risk factors, such as an early sexual debut, a history of multiple sexual partners, and a high number of live births.

Objective: To assess the level of knowledge, attitude and practice of cervical cancer screening.

Methods: A community based cross sectional design was conducted. A total of 390 study participants were recruited. Multistage sampling technique was used to select the respondents of the study. An interview method was employed by using a pretested structured questionnaire. Data was entered, cleaned and analyzed by SPSS version 20 statistical package. Descriptive summaries using frequencies and proportions were used to present the study results. Binary and multivariable logistic regression was used to identify factors associated with the level of knowledge, attitude and practice of cervical cancer and screening method.

Results: Among 390, most of them were married 247 (63.3%). Half of them were aged between 30-44 years, 199 (51%). Most of them 329 (84.4%) reported that they have heard about cervical cancer before. Nearly half (48.6%) of study participants had a good knowledge. Most of them agreed that precancerous cervical cancer screening method does not harm 219 (66.6%). It was found that literates women were more likely to be knowledgeable by 22.7 times than women who were illiterates (COR=22.7 95% CI 3.0, 170.9 AOR=12.7 95% CI 1.6, 98.6).

Conclusion: Nearly half of study participants had good knowledge toward cervical cancer. Most of study participants had positive attitude but very few of them were tested for cervical cancer. The most associated factors for knowledge, attitude and practice regarding cervical cancer screening method were educational status, occupational status, and family history of cervical cancer.

Keywords: Cervical cancer; Mortality; Cryotherapy; Knowledge

INTRODUCTION

Globally, cervical cancer is the third most common cancer in women in 2008 there were an estimated 529,000 new cases. Low-resource countries experience 85% of the global burden and in regions such as Eastern Africa and South-Central Asia, cervical cancer is the most common cancer in women accounting for 13% of all female cancers [1].

The majority of cervical cancer deaths occur in women who are never screened or treated and in women with well-described sexual and reproductive risk factors, such as an early sexual debut, a history of multiple sexual partners, and a high number of live births [2,3].

In Ethiopia, an estimated 19,836 new cases (26.4 per 100,000 women) and 16,283 deaths (18.4 per 100,000 women) of cervical cancer were reported in 2012. These figures most likely underestimate the actual number of cases given the low level of awareness for cervical cancer, limited access to, and lack of a representative population-based cancer registry. Sub-Saharan Africa contributed more than 85% of global burden of cervical cancer. It is a major cause of morbidity and mortality among women in

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resource-poor settings, especially in Africa [4].

Ethiopia has invested little effort in cancer awareness as maternal health and other communicable diseases have been targeted as key health priorities by the Federal Ministry of Health (FMOH) [5,6].

Cervical cancer screening offers protective benefits and is associated with a reduction. The World Health Organization (WHO), United States Preventive Services Task Force (USPSTF) and the American Cancer Society (ACS) recommended that allege eligible women should have cervical cancer screening at least once every three years. Ethiopia adopted the WHO recommendation and recommended women to begin cervical cancer screening at age of thirty. The "see and treat" strategy is being applied using Visual Inspection under Acetic acid (VAI) as screening method and cryotherapy as a treatment option [7-10].

The most common challenges in cervical cancer prevention programs in developing countries are, increasing women's awareness, increasing provider knowledge and skills, and effective monitoring and evaluation approach [11,12].

Knowledge, attitude and practice level of the community is very essential about the signs and symptoms of cervical cancer, risk factors, benefits of early diagnosis and treatment, availability of health services and prevention methods (HPV vaccination). The women's knowledge and attitude about the disease is influenced by socio demographic factors and the availability and accessibility of health services. In turn, screening behavior is a complex outcome of many factors operating at individual, family, and community levels [13,14]. The aim of the study was to assess the level of knowledge, attitude and practice toward cervical cancer and screening method in Adama town.

MATERIALS AND METHODS

The study was conducted in Adama town. Adama is located 99 kilometers southeast of Addis Ababa in the Great Rift Valley of East Africa. According to the census 2007 report of Central Statistical Agency of Ethiopia the population is more than 356,344 of whom male 176,487 and female 179,857. The town is divided into 6 sub cities.

A community based cross sectional design was conducted. The sample size was calculated using single proportion formula with the following assumption n=(Z⍺/2)2P(1-P)/d2 Where Z=95% confidence interval (1.96), d=Marginal error=5%, n=sample size P=estimated proportion(19%) [6,7]. Non-response rate 10% and design effect 1.5 is added. The total sample size was 390.

An interview method was employed by using a pretested structured questionnaire adapted from earlier studies related to cervical cancer and screening knowledge, attitude, and practices. The questionnaire was translated into Amharic and Oromic languages using professional linguists. The questionnaire is divided into 4 major areas that included: Background characteristics, Knowledge towards cervical cancer which assesses burden of the disease, risk factors, symptoms, screening procedure treatment and prevention method, attitude towards cervical cancer and screening method and practices towards cervical cancer screening.

Multi stage sampling technique was used to select the respondents of the study. There are 6 sub cities in Adama town. From these, two sub cities were selected by lottery system. From the two sub cities, two kebeles were selected from each sub cities. Then, the desired samples were selected using proportions.

Data was entered, cleaned and analyzed by SPSS version 20 statistical package. Descriptive summaries using frequencies and proportions were used to present the study results. Multivariable logistic regression was used to identify factors associated with the level of knowledge, attitude and practice of cervical cancer and screening method. Adjusted odds ratio at 95% confidence interval and p-value was used to measure the strength of association and identify statistical significant result. P-value<0.05 will be considered as a statistically significant association.

RESULTS

Socio demographic characteristics

A total of 390 women participants were recruited in this study. Most of them were married, 247(63.3%). Half of them were aged between 30-44 years, 199(51%). Women who completed higher education were 125(32.1%). Nearly half of them were house wife, 161(41.3%) **(Table 1)**.

Reproductive history

Of total 390 study participants half of them said that they have more than 4 children, 203 (52.1%). Women who responded their age of first sexual intercourse 21-30 years were 196 (50.3%). Majority of them said that they had one sexual partner in life time, 278 (71.3%). Most of them said that their first childbirth age was 21-30 years, 279 (84.4%). Women who had history of abortion were 86 (22.1%) **(Table 2)**.

Knowledge of cervical cancer

Out of 390 participants, 329(84.4%) reported that they have heard about cervical cancer before. From these, 183(46.9%) of them said that their source of information about cervical cancer was mass media whereas 44 (11.3%) of them was from health professionals. Of 329 participants, 152 (46.2%) of them knew about cervical cancer risk factors. Women who knew preventions methods of cervical cancer were 196 (59.6%). Most of them didn't know cervical cancer can be cured at early stage, 205(62.3%). Women who knew cervical screening method were 215(65.3%). Majority of participants knew sign and symptoms of cervical cancer, 250(76%) **(Table 3)**.

Knowledge was assessed using 8 items questions regarding cervical cancer. Mean score value was used to select participants who had good or poor knowledge toward cervical cancer. The mean score was 4.2 Participants who score more than 4.2 were considered as good knowledgeable whereas less than 4.2 were poor knowledgeable toward cervical cancer. Based on this, 160(48.6%) of study participants had a good knowledge whereas 169(51.4%) had a poor knowledge toward cervical cancer **(Figure 1)**.

Attitude toward cervical cancer

Of 329 participants, 206 (62.6%) of them agreed that cervical cancer is highly prevalent in Ethiopia. Half of them agree that all females can acquire cervical cancer, 183 (55.6%). Very few of them disagree that cervical cancer spreads person to person, 34 (10.3%). Most of them agreed that precancerous cervical cancer screening method (VIA) doesn't harm 219 (66.6%). Half of them agreed that precancerous cervical cancer screening method can help to prevent cervical cancer, 179 (54.4%) **(Table 4)**. It was found that women who had positive attitude toward cervical cancer were 232(70.5%) **(Figure 2)**.

Table 1: Socio demographic characteristics of women enrolled in this study, Adama, 2018.

Variables	Frequency (n=390)	Percentage (%)
Age (Years)		
Below 30	82	21
30-44	199	51
45-59	106	27.3
>60	3	0.8
Educational status		
No formal education	33	5.6
Elementary	75	19.2
High school	157	40.3
Higher education	125	32.1
Marital status		
Single	54	13.8
Married	247	63.3
Divorced	33	8.5
Widowed	56	14.4
Occupational status		
Housewife	161	41.3
Self-employee	136	34.9
Governmental employee	93	23.8
Religion		
Orthodox	206	52.6
Muslim	91	23.3
Protestant	93	23.8
Others	-	-
Kebele		
Irecha	160	41
Degaga	19	4.9
Melka Adama	16	4.1
Goro	65	16.7
Dedecha arara	65	16.7
Daka Adi	65	16.7

Practice of cervical cancer screening

Of 329 study participants women who were screened for precancerous cervical lesion by VIA were 53 (16.1%). Commonly reported reasons for not being screened were shyness for the procedure and they think they were healthy **(Table 5)**.

Factors affecting KAP of study participants toward cervical cancer

Out of 160 women who had good knowledge about cervical cancer, 159(99.4%) of them were literate women. It was found that literates women were more likely to be knowledgeable by 22.7 times than women who were illiterates (COR=22.7 95% CI 3.0, 170.9 AOR=12.7 95% CI 1.6, 98.6).

Of 160 women who had a good knowledge, 124 (76.9%) of them were self and government employed. It was revealed that there was significant association between knowledge and occupational status. Women who were self-employed were more likely knowledgeable by 5.3 times (COR=5.3 % 95 CI 2.9, 9.7 AOR= 4.8 95% CI 2.2, 2.5) and women who were government employed by 2.1 times knowledgeable than women who were housewife (COR=2.1 95% CI 1.2, 3.7 AOR=1.6 95% CI .9, 2.9).

Of 53 women who were screened for cervical cancer, 36 (67.7%) of them were women who had positive attitude toward cervical cancer and screening method. It was revealed that having positive attitude is a significant factor for screening of cervical cancer (COR=1.2 95% CI 6, 2.2 AOR=1.8 95% CI .4, 1.5 P-value<0.05) **(Table 6)**.

DISCUSSION

In this study 84% of study participants said that they have heard about cervical cancer before. This is higher than a study conducted among students in Mizan Tepi University (53.11%) and it was 71.3% among ART clients (16%) [15].

This study found that 46.5% of study participants had good knowledge about prevention method of cervical cancer. This is comparable with a study conducted in Hawassa where more than half of study participants knew prevention method of cervical cancer [16]. It is lesser than a study done among ART clients (75.3%) among Ethiopian health care providers was 85% [17].

In current study 48.6% of participants had good knowledge about cervical cancer. This is comparable with a study done among ART clients (43.8%) [17]. Similarly, in a study conducted in Hosana Ethiopia 46.3% of participants had good knowledge about cervical

Table 2: Reproductive history of study participants, Adama, 2018.

Variables	Frequency	Percentage (%)
Number of children		
Less than 4	184	47.2
More than 4	203	52.1
None	3	0.8
Age of first sexual intercourse (Years)		
Less than 15	11	2.8
15-20	161	41.3
21-30	196	50.3
None	22	5.6
Age at first marriage		
Not Married	58	14.9
15-20	120	30.8
21-30	211	54.1
Above 30	1	0.3
Age at first childbirth		
Nulliparas	61	15.6
15-20	50	12.8
21-30	279	84.4
Above 30	0	0
Number of sexual partner in life time		
None	5	1.3
1	278	71.3
2-5	103	26.4
>5	4	1
History of abortion		
Yes	86	22.1
No	304	77.9
Family history of cervical cancer		
Yes	4	1
No	386	99

Table 3: Knowledge assessment of participants toward cervical cancer, Adama, 2018.

Variables	n	Percentage (%)
Have you heard about cervical cancer		
Yes	329	84.4
No	61	15.6
Source of information		
Mass Media	183	46.9
Health Professionals	44	11.3
Friends/Neighbor	99	25.4
Others	3	0.3
Know about risk factors of cervical cancer		
Yes	152	46.2
No	177	53.8
Know about prevention of cervical cancer		
Yes	196	59.6
No	133	40.4
Correct answer about sign and symptom of Cca		
Yes	250	76
No	79	24
Know about treatment method of Cca		

Yes	215	65.3
No	114	34.7
Can Cca can be cured at early stage		
Yes	124	37.7
No	205	62.3
Know Cca can be screened		
Yes	215	65.3
No	114	34.7
Know how often screening of Cca should be done		
Yes	114	34.7
No	215	65.3
Know who should be screened for Cca		
Yes	116	35.3
No	213	64.7

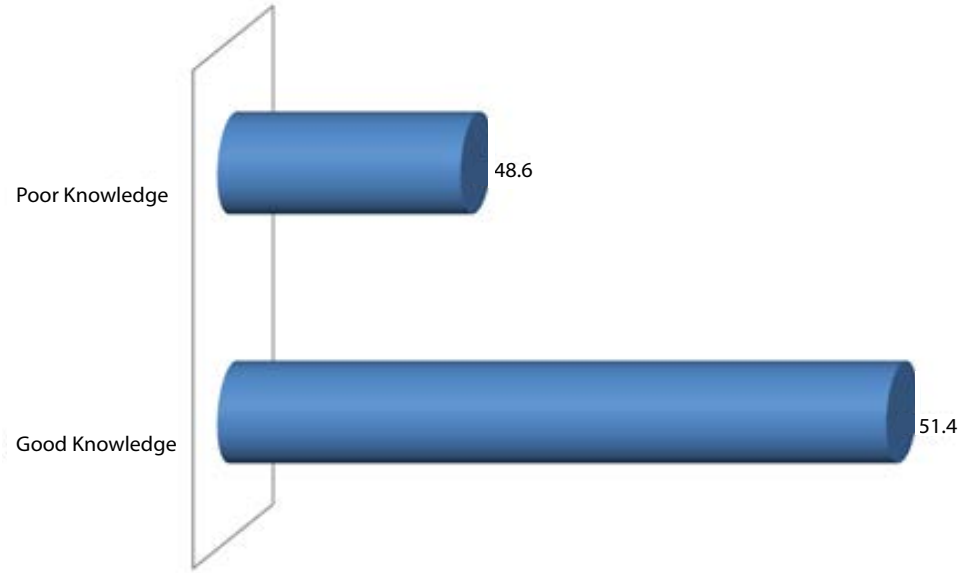

Figure 1: Knowledge score of participants toward cervical ca, Adama, 2018.

Table 4: Attitude assessment of participants toward cervical cancer, Adama, 2018.

Variables	n	Percentage (%)
Cervical cancer is highly prevalent in Ethiopia		
Strongly agree	119	36.2
agree	206	62.6
Neutral	3	0.9
Disagree	1	0.3
Strongly disagree	0	0
All females can acquire cervical cancer		
Strongly agree	35	10.6
Agree	183	55.6
Neutral	1	0.3
Disagree	109	33.1
Strongly disagree	1	0.3
Cervical cancer spreads from person to person		
Strongly agree	74	22.5
Agree	220	66.9
Neutral	1	0.3
Disagree	34	10.3
Strongly disagree	0	0

Precancerous cervical cancer screening can prevents cervical cancer		
Strongly agree	64	19.5
Agree	179	54.4
Neutral	86	26.1
Disagree	0	0
Strongly disagree	0	0
Precancerous cervical cancer screening doesn't harm		
Strongly agree	98	29.8
Agree	219	66.6
Neutral	12	3.6
Disagree	0	0
Strongly disagree	0	0
If Precancerous cervical cancer screening doesn't harm it is good to be screened		
Strongly agree	108	32.8
Agree	216	62.7
Neutral	5	5
Disagree	0	0
Strongly disagree	0	0

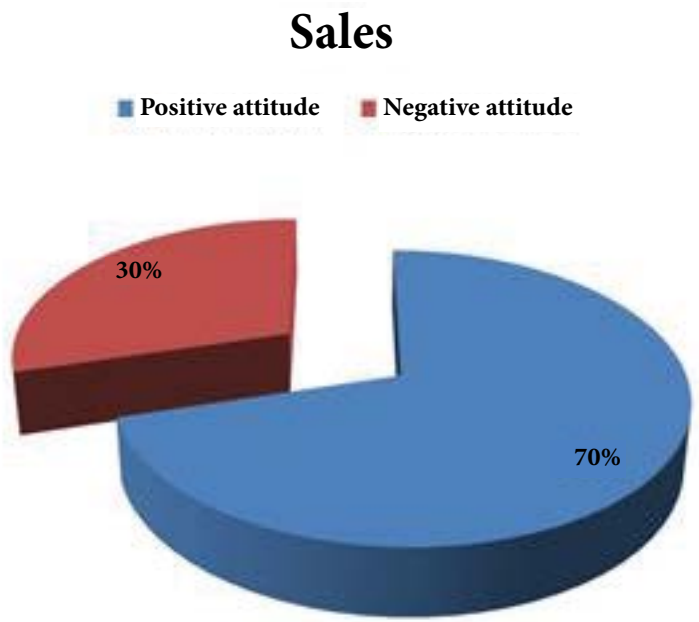

Figure 2: Attitude of participants toward cervical cancer.

Table 5: Practice of precancerous cervical lesion screening.

Variables	n	Percentage (%)
Screened for cervical cancer		
Yes	53	16.1
No	276	83.9
Reason for not being screened for cervical cancer		
Fear of pain	1	0.4
Shyness	55	19.7
I think I am healthy	58	20.8
My husband disagree	4	1.4
I think it is expensive	3	1.1
I have no idea	71	25.4
I didn't decide	87	31.2

Table 6: Factors associated with KAP of participants toward cervical cancer, 2018.

Variables	Knowledge score		COR	AOR
	Good Knowledge	Poor Knowledge		
Educational status				
Literate	159(99.4)	147(87.5)	22.7(3.0,170.9)	12.7(1.6,(98.4)
Illiterate	1(.6)	21(12.5)	1	1
Occupational status				
Housewife	36(22.5)	80(47.6)	1	1
Self-employed	65(40.6)	27(16.1)	5.3(2.9,9.7)	4.8(2.2,7.5)
Government	59(36.9)	61(36.3)	2.1(1.2,3.7)	1.6(.9,2.9)
Family History				
Yes	1.6)	2(1.2)	1.9(.7,21.3)	.7(.06,2.9)
No	159(99.4)	166(98.8)	1	-
Attitude	**Positive**	**Negative**	**n**	**Percentage (%)**
Educational status				
Literate	216(93.1)	91(93.8)	.9(.4,2.3)	1.0(.5,.3)
Illiterate	16(6.9)	6(6.2)	1	1
Occupational status				
Housewife	88(37.9)	28(28.9)	1	1
Self-employed	72(31)	21(21.6)	1.1(.5,2.1)	4.1(2.2,7.5)
Government	72(31)	48(49.5)	.4(.3,.8)	1.6(.9,2.9)
Screened for cervical ca	**Yes**	**No**	**n**	**Percentage (%)**
Educational status				
Literate	50(94.3)	257(93.1)	.8(.2,2.8)	1.5(.3,6.3)
Illiterate	3(5.7)	19(6.9)	1	1
Occupational status				
Housewife	12(22.6)	104(37.7)	1	1
Self-employed	24(45.3)	69(25)	.3(.2,.7)	.3(.1,.7)
Government	17(32.1)	103(37.3)	.7(.3,1.5)	.6(.3,1.6)
Knowledge score				
Good	31(58.5)	129(46.9)	.6(.3,1.1)	1.2(.7,2.4)
Poor	22(41.5)	146(53.1)	1	1
Attitude				
Positive	36(67.9)	196(70.5)	1.2(.6,2.2)	1.8(.4,1.5)
Negative	17(32.1)	80(29.5)	1	1

cancer [18]. Whereas in a study conducted in Nepal 87% of study participants had inadequate knowledge regarding cervical cancer [19].

In this, 62.6% of participants had positive attitude toward cervical cancer. In study conducted in Nepal 71.7% of participants, had positive attitude [19] and in a study done in Hosana Ethiopia 65.2% had positive attitude [18].

This study revealed that 16.1% of study participants were screened for cervical cancer. Similarly in study conducted in Nepal 86.4% [19] and in a study done in Hosana Ethiopia 9.9% of participants were tested for cervical cancer [18].

This study found that participants who had family history of cervical cancer more likely to be knowledgeable by 1.9 times than who had no family history of cervical cancer. In study conducted in Nepal also participants who had family history of cervical cancer were more likely to be knowledgeable by 2 times [19]. In current study literates women were more likely to be knowledgeable by 22.7 times than women who were illiterates. But in a study conducted in Nepal illiterate women were more likely to have a favorable attitude and go for cervical cancer screening (p=0.013; OR=0.54; 95% CI=0.33–0.88) [19].

In this study, commonly reported reasons for not being screened were shyness for the procedure and they think they were healthy. In a study in Nepal commonly reported reasons were screening was not needful without any symptoms, lack of awareness, screening was embarrassing and some answered they were too busy or careless [19]. Whereas in a study conducted in Hosana Ethiopia the most reported reasons were participants had no intention to be screened for cervical cancer, they had never heard about the disease and never had experienced the illness before [18,19].

CONCLUSION

Nearly half of study participants had good knowledge toward cervical cancer. Most of study participants had positive attitude but very few of them were tested for cervical cancer. The most associated factors for knowledge, attitude and practice for cervical cancer screening were educational status, occupational status, and family history of cervical cancer. Commonly reported reasons for not tested cervical cancer were shyness for the procedure and they think they were healthy.

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