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Knowledge, attitude, and practices towards cervical cancer screening and associated factors among female healthcare professionals in public hospitals of Bahir Dar City, Ethiopia, 2026: A facility-based cross-sectional study

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Abstract

Background

Cervical cancer is the fourth most common cancer in females worldwide. Despite the high burden of new cases and deaths, there is a scarcity of data on knowledge, attitude and practices towards cervical cancer screening among female healthcare professionals in Ethiopia.

Methods

A facility based cross-sectional study was conducted among 420 study participants. A simple random sampling technique was used. Data were entered into Epi data version 4.6 and exported into SPSS version 26 for analysis. Binary logistic regression was used to analyzed the data. In bi-variate analysis, those variables with p-value < 0.25 were recruited for multivariate analysis and variables with a p-value < 0.05 were considered statically significance.

Results

The magnitude of having good knowledge, positive attitude and practice towards cervical cancer screening was 79.2%, 57.8% and 26.5% respectively. Getting training [AOR = 2.37, 95% CI: 1.19, 4.72] and history of condom use [AOR = 2.24, 95% CI: 1.29, 3.90] were significantly associated with good knowledge. Use of oral contraceptives [AOR = 2.09, 95% CI: 1.25, 3.50], getting training [AOR = 1.80, 95% CI: 1.10, 2.92] and parity [AOR = 2.81, 95% CI: 1.00, 7.85] were statistically significant with positive attitude. Besides, age [AOR = 0.48, 95% CI: 0.24, 0.96] and not having history of casual sex [AOR = 0.40, 95% CI: 0.20, 0.80] were significantly associated with practice.

Conclusion

In this study, the magnitude of having good knowledge was high. But, the magnitude of positive attitude and practice towards cervical cancer screening was low. Getting training and history of condom use were positively associated with good knowledge. Use of oral contraceptives, training and parity were positively associated with positive attitude. In addition, age and not having history of casual sex were negatively associated with practice.

Introduction

Cervical cancer is a worldwide public health issue and a habitual noninfectious complaint caused substantially by patient infection with particular forms of the human papilloma virus(HPV) (1). Effective screening programs can significantly reduce the morbidity and mortality associated with this cancer. Screening aims to descry precancerous changes that may lead to cancer if not treated. Women who are

set up to have abnormalities on webbing bear follow- up, opinion, and treatment, to help the development of cancer or to treat cancer at an early stage (2).

Population- grounded webbing and treatment of the premalignant lesions of the cervix have led to a significant drop in the prevalence and mortality due to cervical cancer in the developed regions of the world (3). The main cause for cervical cancer is the human papilloma virus(HPV) which is transmitted through sexual intercourse (4).

There are different walls towards cervical cancer webbing in developing countries similar deficit and underutilization of screening installations, lack of mindfulness and poor station towards cervical cancer and threat factors, beliefs about cervical cancer, feeling healthy, smirch, fear of the test results and fear of connubial disturbance (5). Because of poor healthcare structure, low- and middle- income countries regard for over 85% of new cases and 87% of cervical cancer related deaths (6). Cervical cancer is a complaint that can be averted and treated, and early discovery of precancerous lesions can help lower the complaint's prevalence and death rate (7, 8).

Multiple sexual mates, youthful age at first sexual intercourse, youthful age at first delivery, equality, oral contraceptive capsules, smoking, rotundity, and inheritable perceptivity are all threat factors (9). In advanced countries, the prevalence and mortality of this cancer have dropped significantly because of the sweats made to descry precancerous lesions beforehand (10). Despite the high frequence of cervical cancer, numerous studies have shown that women's knowledge about HPV, cervical cancer and cervical webbing is veritably low. also, the uptake and success of cervical cancer webbing is determined by women's knowledge and mindfulness of cervical cancer (9, 11, 12).

Cervical cancer is a global public health problem with an estimated 569 847 cases and 311,365 deaths reported in 2018. further than 85% of the global burden occurs in developing countries, counting for 13% of all womanish cancers and is a major cause of cancer- related deaths (2).

It's also a major public health problem with new opinion cases of 530 232, and 275 008 deaths annually; with further than 85% of these deaths being in low- and middle- income countries including Ethiopia (3). Effective primary and secondary forestallment programs, as well as effective treatment for early- stage invasive cancer have dramatically reduced the burden of cervical cancer in high- income countries; 85% of the mortality from cervical cancer now occurs in low- and middle- income countries (12).

Different factors related to cervical cancer screening were a lack of awareness about the disease process, unsatisfactory pap smear testing, and the client's negative attitude toward the procedure and lack of awareness of available screening methods, in addition to a lack of knowledge, can play a significant role in the failure to use cervical cancer screening programs (2, 4). Low awareness and poor knowledge on cervical cancer and cervical cancer screening methods have been identified as major barriers to effective cervical cancer prevention in the developing nations. Lack of effective screening programs has also been identified as a major barrier to effective cervical cancer control (13). Early death and morbidity were the major consequences of cervical cancer among women in both developed and

developing countries (4, 14). Cervical cancer prevention and control programmers are developed and designed to decrease cervical cancer incidence, morbidity and mortality. There are large inequities in access to effective cervical cancer screening and treatment; invasive cervical cancer predominantly affects women who lack access to these services (5). Despite the growing number of cervical cancer cases in Ethiopia, there is still a gap in attitude and practice towards cervical cancer screening. To the knowledge of the investigator, no such like research was done in this study area. Therefore, this study was aimed to assess attitudes, and practices towards cervical cancer screening and associated factors among female healthcare professionals in public hospitals of Bahir Dar City, Northwest Ethiopia.

Methods and Materials

Study area and period

The study was conducted in public hospitals of Bahir Dar City administration, Northwest Ethiopia. Bahir Dar is the capital city of Amhara National Regional State, located 565 km Northwest of Addis Ababa with an altitude of 1799 meters above sea level with warm and temperate climate. Tibebe Ghion comprehensive Specialized Hospital, Felege Hiwot Comprehensive Specialized Hospital and Addis Alem hospitals are the three public Hospitals in Bahir Dar City with estimated catchment population of seven million and most of their clients are referral cases from health centers and district hospitals. There is a total of 780 female healthcare professionals in the three public hospitals. The study was conducted from August 15,2025 to September ,2025.

Study design

A facility-based cross-sectional study was conducted.

Source population

All female healthcare professionals in public hospital of Bahir Dar City were the source population.

Study population

Randomly selected female healthcare professionals in the three public hospital of Bahir Dar City

Inclusion criteria

All female healthcare professionals who worked greater than 6 months in public hospitals of Bahir Dar City and available during the data collection period.

Exclusion criteria

Those who were in annual break, leave for education purposes and absent during the data collection period were excluded.

Sample size determination

The total sample size (n) is calculated using single population proportion formula and assuming, the proportion of good knowledge is 46.1% (15). 95% confidence level, and 5% margin of error and finally adding 10% non-response rate.

$$n = \frac{(Za/2)^2\ P\ (1\text{-}P)}{d^2}$$

Where,

n= required sample size

Za/2 = critical value for normal distribution at 95% confidence interval which equals to 1.96 (Z value at alpha = 0.05).

P= Proportion

d = an absolute precision (5% margin of error), therefore,

$$n = \frac{1.96(1.96)(0.461)(1-0.461)}{(0.05)2} = 381.8 \sim 382$$

By considering non-response rate of 10%, (382*0.1 = 38.2 ~ 38) then, the total sample size equals 382 + 38=**420**

For rest of the objectives(factors) the sample size will be calculated by using EPI-info by using the following assumption: 95% CL, 80% power, the ratio one to one and adding non-response rate 10% (Table 1).

Table 1
Sample size determination by using the second objective, calculated by Epi-info software

Variable	Ratio unex/ex	%outcome unexposed	OR	Sample size	Non-response	Total sample	Reference
Educational level	1	31.9	2.08	270	27	297	(6)
Age of respondents	1	68.9	0.4	176	18	194	(16)
Source of information	1	57.6	2.1	284	28	312	(16)
Marital status	1	39	0.4	208	21	229	(9)

Since the sample size calculated by first objective is greater than the sample size calculated by second objective, the total sample size was taken from first objective, which is **420.**

Sampling procedures

Study participants were selected through simple random sampling techniques from the three public hospitals of Bahir Dar City. Data were collected through self-administered questionnaires. Samples were taken proportionally from each hospital proportional to their size (Fig. 1).

Dependent variables

Knowledge, attitude and practices towards cervical cancer screening

Independent variables

- **Socio-demographic factors**: Age of the women, marital status, religion, educational status and income
- **Reproductive factors**: Parity, ever had sex, age of first sex, history of casual sex, modern contraceptives user, oral contraceptives user and history of condom use
- **Service-related factors**: Availability of screening services, long waiting time, lack of respect, training and lack of information

Operational definitions

Knowledge

It can be measured by asking the study participants 16 questions. Then, the mean score was computed, and those who scored greater than or equal to the mean score were considered to have good knowledge, and those who scored below the mean score were considered to have poor knowledge (1, 2).

Attitude

It is assessed using 7 attitude-related questions using a Likert scale. The scoring system used was strongly disagree = 1, disagree = 2, neutral = 3, agree = 4, strongly agree = 5. The responses were summed, and a total score was obtained. Then we calculated the mean score. Those who scored above the mean score were considered to have a positive attitude, whereas the women who scored below the mean score were categorized as having a negative attitude towards cervical cancer screening (1).

Not practiced

Respondents who never underwent screening for cervical cancer(1, 15).

Practiced

Respondents who had been screened for cervical cancer at least once (1, 15).

Data Collection tools and procedures

Data were collected using structured self-administered questionnaires. The questionnaires were adapted from different literature (1, 2, 7, 8, 10, 13) and developed in English, and then were translated into Amharic and then back to English for consistency and to make it simple during administration. Four BSc. nurses were recruited as data collectors. Two BSc nurses were assigned to supervise data collectors. Cronbach's alpha test was done to check the reliability of test items (alpha = 0.83).

Data Quality Assurance

Before actual data collection time, the tools were pre-tested for their correctness and understandability on 5% of the total sample size, and possible modifications were made to the tool. The questionnaires were pre-tested at Debre Markos Comprehensive Specialized Hospital. Before data collection, all the data collectors were trained for two days on the objectives of the study to have a similar concept of the questionnaire. After data collection, the collected data were checked for completeness and correctness of the information before analysis. In addition, the data were thoroughly cleaned and carefully entered before analysis.

Data processing and analysis

Data were checked for completeness and consistency. Data were entered into EpiData version 4.6, and it was exported to SPSS version 26 for analysis. Different frequency tables, graphs, and descriptive summaries were used to describe the study variables. Binary logistic regression analysis was used to see the significance of the association between dependent and independent variables. Both bivariate and multivariate analyses were computed. The bi-variate logistic regression analysis model was used to identify the potential predictor variable, with p value < 0.25 fitted into the multivariate logistic regression analysis model; p value less than 0.05 and an adjusted odds ratio (AOR) with a 95% confidence interval

(CI) was used to declare Statistical significance. There was no multicollinearity among independent variables. The model fitness test was checked by the Hosmer and Lemeshow test.

Ethical Consideration

The study was conducted after getting supportive letter from Bahir Dar University, College of Medicine and Health Science, school of Medicine. A formal letter, from the Bahir Dar University, College of Health Science and Medicine was submitted to Tibebe Ghion Comprehensive Specialized Hospital, Felege Hiwot Comprehensive Specialized Hospital and Addis alem General Hospital administrators to obtain their co-operation. The respondents' rights and dignity were also respected. Informed oral consent was obtained from study participant to confirm willingness for participation after explaining the objective of the study. The respondents were notified that they have the right to refuse or terminate at any point of the interview. The information provided by each respondent was kept confidential throughout the data collection process.

Dissemination and Utilization of Results

The findings of this study will be presented to Bahir Dar University, College of Medicine and Health Sciences, School of Medicine, Department of Obstetrics and Gynecology and finally, the findings will be distributed to other organizations working on related areas if they want. The findings may also be presented in different seminars, meetings and workshops and effort will be used to publish the result.

Results

Socio-demographic characteristics of the study participants

Of a total of 420 study participants, 408 of them participated in this study with a response rate of 97.1%. In this study, the mean age of study participants were 32.76 years (SD ± 5.71 years). In this study, majority, 378 (92.6%) of the study participants were degree holders. On the other hand, nearly two-thirds (72.5%) of the study participants were orthodox by religion. Besides, 301 (73.8%) of the study participants were married (Table 2).

Table 2: Socio-demographic characteristics of study participants at Public Hospitals in Bahir Dar City, Northwest Ethiopia, 2026.

Variables	Frequency	Percent
Age		
21-30yrs	202	49.5
31-40yrs	154	37.7
> 40yrs	52	12.7
Educational level		
Diploma	5	1.2
Degree	378	92.6
Master	25	6.1
Religion		
Orthodox	295	72.5
Muslim	71	17.4
Protestant	29	7.1
Catholic	7	1.7
Marital status		
Single	82	20.1
Married	301	73.8
Divorced	21	5.1
Widowed	4	1.0
Work experience		
<5yrs	212	52
5-10yrs	170	41.7
>10yrs	26	6.4

Types of professions

In this study, nearly half (54.7%) of the study participants were nurses in profession (Fig. 2)

Reproductive related factors

In this study, only 145 (35.5%) of the study participants had 2–3 deliveries. On the other hand, 366 (89.7%) of the study participants didn't have history of casual sex. Nearly, two-thirds (76%) of the study participants didn't use oral contraceptive currently (Table 3).

Table 3: Reproductive-related factors of study participants at Public Hospitals in Bahir Dar City, Northwest Ethiopia, 2026.

Variables		Frequency	Percent
Parity	0	133	32.6
1		110	27.0
2-3		145	35.5
>3		20	4.9
Having history of casual sex			
No		366	89.7
Yes		42	10.3
History of condom use			
No		241	59.1
Yes		167	40.9
Age at first sex			
≤20yrs		145	35.5
21-25yrs		219	53.7
>25yrs		44	10.8
Use of oral contraceptives			
No		310	76
Yes		98	24

Service-related factors

In this study, 357 (87.5%0 of the study participants got the availability of screening services. On the other hand, only 106 (26%) of the study participants took training about cervical cancer screening. The main source of information about cervical cancer screening was healthcare providers (31.1%) (Table 4).

Table 4: Service-related factors of study participants at Public Hospitals in Bahir Dar City, Northwest Ethiopia, 2026.

Variables		Frequency	Percent
Availability of screening services			
No		51	12.5
Yes		357	87.5
Did you take training about cervical cancer screening	No		
Yes		302	74
		106	26
Sources of information			
Peers		106	26.5
Healthcare provider		127	31.1
Social media		99	24.3
TV/Radio		123	30.1
Friends		104	25.5
Families		110	27

Magnitude of KAP among study participants

In this study the overall magnitude of good knowledge among study participants on cervical cancer screening was 323 (79.2%) with 95% CI [75.2, 82.8]. The overall magnitude of positive attitude among study participants towards cervical cancer screening was 236 (57.8%) with 95% CI [52.7, 62.7]. On the other hand, only 108 (26.5%) with 95% CI [22.3, 30.6) was screened for cervical cancer. But, the remaining 300 (73.5%) of the study participants didn't practice cervical cancer screening (Fig. 3).

Factors associated with knowledge of study participants on cervical cancer screening

In bi-variable analysis, five variables, namely, work experience, training, use of modern contraceptive methods and parity were candidate variables for multi-variable logistic regression at a p-value of less than 0.25. In multivariable logistic regression, two of five variables were significantly associated having good knowledge of cervical cancer screening at 5% level of significance. The significant predictors were training and history of condom use. Those who took training about cervical cancer screening [AOR = 2.37, 95% CI: 1.19, 4.72] were 2.3 times more likely to have good knowledge as compared to those who didn't take training.

On the other hand, those who had previous history of condom use [AOR = 2.24, 95% CI: 1.29, 3.90] were 2.2 times more likely to have good knowledge as compared to those who didn't have history of condom

use (Table 5).

Table 5: Factors associated with knowledge of cervical cancer screening among women healthcare professionals at Public Hospitals in Bahir Dar City, Northwest Ethiopia, 2026.

Variables	**Knowledge**		COR (95% CI)	AOR (95% CI)
	Good	**Poor**		
Work experience				
Less than 5yrs	160	52	0.92 [0.35, 2.42]	1.09 [0.39, 3.03]
5-10 yrs	143	27	1.58 [0.58, 4.32]	1.36 [0.47, 3.90]
Greater than 10 yrs	20	6	1	1
Getting training				
No	229	73	1	
Yes	94	12	2.49 [1.29, 4.81]	**2.37 [1.19, 4.72] ***
History of condom use				
No	179	62	1	**1**
Yes	144	23	2.16 [1.28, 3.67]	**2.24 [1.29, 3.90] ****
Parity 0	114	19	2.57 [0.88,7.51]	3.66 [0.83, 9.36]
1	89	21	1.81 [0.62, 5.28]	2.59 [0.84, 7.99]
2-3	106	39	1.16 [0.41, 3.24]	1.61 [0.55, 4.74]
>3	16	6	1	1

Note: COR (Crude Odds Ratio), AOR (Adjusted Odds Ratio); * ($p < 0.05$), **. Hosmer and Lemeshow goodness of fit test= 0.267

Factors associated with attitude of study participants on cervical cancer screening

In bi-variable analysis, five variables, namely, use of oral contraceptives, taking training, having causal history of sex and parity were candidate variables for multi-variable logistic regression at a p-value of less than 0.25. In multivariable logistic regression, three of four variables were significantly associated with having positive attitude of cervical cancer screening at 5% level of significance. The significant predictors were use of oral contraceptives currently, taking training and parity. Those who used oral contraceptives currently [AOR = 2.09, 95% CI: 1.25, 3.50] were 2 times more likely to have positive attitude towards cervical cancer screening as compared to those who didn't use oral contraceptives currently. Those who took training about cervical cancer screening [AOR = 1.80, 95% CI: 1.10, 2.92] were

1.8 times more likely to have positive attitude as compared to those who didn't take training after controlling other variables. Those who had one parity [AOR = 2.81, 95% CI: 1.00, 7.85] were 2.8 times more likely to have positive attitude towards cervical cancer screening as compared to those who had > 3 parity. On the other hand, those who had 2–3 parity [AOR = 2.72, 95% CI: 1.01, 7.43] were 2.7 times more likely to have positive attitude as compared to those who had > 3 parity (Table 6).

Table 6: Factors associated with attitude towards cervical cancer screening among women healthcare professionals at Public Hospitals in Bahir Dar City, Northwest Ethiopia, 2026.

Variables		**Attitude**		COR (95% CI)	AOR (95% CI)
		Positive	**Negative**		
Use of oral contraceptive currently					
No		167	143	1	**1**
Yes		69	29	2.03 [1.25, 3.31]	**2.09 [1.25, 3.50] ****
Taking training					
No		165	137	1	**1**
Yes		71	35	1.68 [1.05, 2.67]	**1.80 [1.10, 2.92] ***
Having causal history of sex					
No		217	152	1	1
Yes		19	20	0.66 [0.34, 1.28]	0.63 [0.31, 1.27]
Parity	0	67	66	1.52 [0.52,3.96]	1.60 [0.58, 4.39]
1		69	41	2.52 [0.95, 6.68]	2**.81[1.00, 7.85] ***
2-3		92	53	2.60 [1.0, 6.77]	**2.72 [1.01, 7.43] ***
>3		8	12	1	1

Note: COR (Crude Odds Ratio), AOR (Adjusted Odds Ratio); * (p < 0.05), **. Hosmer and Lemeshow goodness of fit test= 0.434

Factors associated with practice of cervical cancer screening among study participants

In bi-variable analysis, five variables, namely, age, work experience, training, having causal history of sex and availability of screening services were candidate variables for multi-variable logistic regression at a

p-value of less than 0.25. In multivariable logistic regression, two of five variables were significantly associated with practice of cervical cancer screening at 5% level of significance. The significant predictors were age and having history of casual sex. Those whose age 31-40yrs [AOR = 0.48, 95% CI: 0.24, 0.96], the odds of practicing cervical cancer screening was reduced by 52%, as compared to those whose age was > 40 years. On the other hand, those who didn't have history of casual sex [AOR = 0.40, 95% CI: 0.20, 0.80], the odds of practicing cervical cancer screening was reduced by 60%, as compared to those who had history of casual sex (Table 7).

Table 7: Factors associated with practice of cervical cancer screening among women healthcare professionals at Public Hospitals in Bahir Dar City, Northwest Ethiopia, 2026.

Variables	**Practice**		COR (95% CI)	AOR (95% CI)
	Yes	**No**		
Age				
21-30yrs	50	152	0.48 [0.25, 0.92]	0.52 [0.27, 1.02]
31-40yrs	37	117	0.46 [0.24, 0.90]	**0.48 [0.24, 0.96] ***
>40yrs	21	31	1	1
Work experience				
Less than 5 yrs	56	156	1.37 [0.79, 4.72]	3.21 [0.90, 4.48]
5-10 yrs	46	121	1.45 [0.89, 10.80]	2.95 [0.82, 4.94]
Greater than 5 yrs	6	23	1	1
Taking training				
No	165	137	0.68 [0.42, 1.11]	0.59 [0.35, 1.00]
Yes	71	35	1	1
Having history of casual sex				
No	89	277	0.38 [0.20, 0.74]	**0.40 [0.20, 0.80] ***
Yes	19	23	1	1
Availability of screening service				
No	17	34	1.46 [0.77, 2.74]	1.59 [0.83, 3.06]
Yes	91	266	1	1

Note: COR (Crude Odds Ratio), AOR (Adjusted Odds Ratio); * ($p < 0.05$), **. Hosmer and Lemeshow goodness of fit test = 0.647.

Discussions

In this study, the overall magnitude of good knowledge among study participants was 79.2% with 95% CI [75.2, 82.8]. This study finding was higher as compared to the studies conducted University of Gondar, Northwest Ethiopia 59.3.3% (3), Wolaita Zone, Southern Ethiopia (46.1%,(15), Gurage zone, Southern Ethiopia (26.2%) (10) and Dire Dawa City (9.3%) (1). On the other hand, in this study, the overall magnitude of positive attitude among study participants was 57.8% with 95% CI [52.7, 62.7]. This finding was in line with the study done in Dire Dawa (57.7%) (1). But, this finding was lower as compared to the study conducted in University of Gondar, Northwest Ethiopia (67.7%) (3). In this study, 26.5% of the study participants were screened for cervical cancer screening. This finding was higher as compared to the studies conducted in Nepal (17.6%) (11), Wolaita Zone, Southern Ethiopia (22.9%) (15), Dire Dawa City (2.5%) (1), and Gurage zone, Southern Ethiopia (3.8%) (10). This discrepancy could be due to variations in geographic location, sample size, study setting, availability of resources and health strengthening system.

In this study, having training about cervical cancer screening and history of condom use were positively associated with having good knowledge among study participants. Those who had training about cervical cancer screening were more likely to have good knowledge as compared to those who didn't have training. This finding was in line with the study conducted in Nepal (11).

On the other hand, in this study, use of oral contraceptive, getting training and parity were positively associated with having positive attitude towards cervical cancer screening. Those who use oral contraceptive were more likely to have positive attitude towards cervical cancer screening as compared to those who don't use oral contraceptive currently. On the other hand, those who got training about cervical cancer training were more likely to have positive attitude towards cervical cancer screening as compared to those who didn't get training. Besides, those who delivered 1 and 2–3 children were more likely to have positive attitude towards cervical cancer screening as compared to those who delivered greater than 3 children. This finding was in line with the studies done in Nepal (11). Because training can also clarify misconceptions, which often reduces negative attitudes or fear.

The other important variables that showed a negative association with practice of cervical cancer screening among female healthcare professionals were age and having history of casual sex. Those whose age 31–40 years were less likely to practice cervical cancer as compared to those whose age were greater than 40 years. This finding was in line with the study done in Dire Dawa city (1). On the other hand, those who didn't have history of casual sex were less likely practice cervical cancer screening as compared to those who had history of casual sex. This finding was in line with the study conducted in Gurage zone, Southern Ethiopia (10). This might be due the fact that women who have had casual sexual encounters may perceive themselves at higher risk for sexually transmitted infections which causes cervical cancer.

Conclusion

In this study, the overall magnitude of having good knowledge about cervical cancer screening among study participants was high. But, the overall magnitude of positive attitude and practice towards cervical cancer screening was low. On the other hand, getting training and history of condom use were variables that showed a positive association with good knowledge. Use of oral contraceptives, getting training and parity were positively associated with having positive attitude. In addition, age and not having history of casual sex were negatively associated with practice of cervical cancer screening.

Recommendations

To healthcare professionals

The healthcare professionals should provide training for female healthcare professionals to maximize their knowledge and to change their attitude towards cervical cancer screening. The healthcare providers should counsel female healthcare professionals not take oral contraceptives for long period of time. On the other hand, healthcare providers should counsel those who had history of previous history of casual sex.

To Health facilities

Health facilities should train female healthcare providers to explain HPV, screening importance, and to have clear understanding about the severity of cervical cancer.

To other researchers

Other researchers better conduct this research in large areas of the country.

Abbreviations

CI
Confidence interval
ETB
Ethiopian Birr
FHCSH
Felege-Hiwot Comprehensive Specialized Hospital
HPV
Human Papilloma Virus
KAP
Knowledge, Attitude and Practice
SPSS
Statistical Package for Social Science
TGCSH
Tibebe Ghion Comprehensive Specialized Hospital

WHO
World Health Organization

Declarations

Ethics approval and consent to participate

Ethical approval was obtained from the ethical committee of Bahir Dar University, College of Medicine & Health Sciences, school of Medicine. Formal permission letters were written to respective hospitals from the School of Medicine. Permission to conduct the study was obtained from the three Hospitals. A letter of informed consent explaining the purposes of the study to respondents was attached to each questionnaire. Before administering the questionnaires for the participant, the aims and objectives of the study were clearly explained to the participants, and verbally informed consent was obtained to participate in the study voluntarily. Confidentiality and privacy were ensured throughout the execution of the study. Participants were informed that their participation was voluntary and that they could withdraw from the study at any time if they wished to do so. All methods were performed in accordance with the relevant guidelines and regulations.

Consent for publication

Not application

Competing interests

All authors declare that they have no competing interests.

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Author Contribution

AG participated in conception and design of the study and manuscript writing. EDF and ATA participated in protocol development, data collection and data analysis and manuscript writing. NT participated in data collection, data analysis, manuscript writing, and manuscript editing. All authors read and approved the manuscript.

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Data Availability

The datasets generated and analyzed during the current study are not publicly available due to the risks in identifying participants, as true anonymization would be difficult to guarantee, but subsets of the data can be available from the corresponding author upon a reasonable request.

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Figures

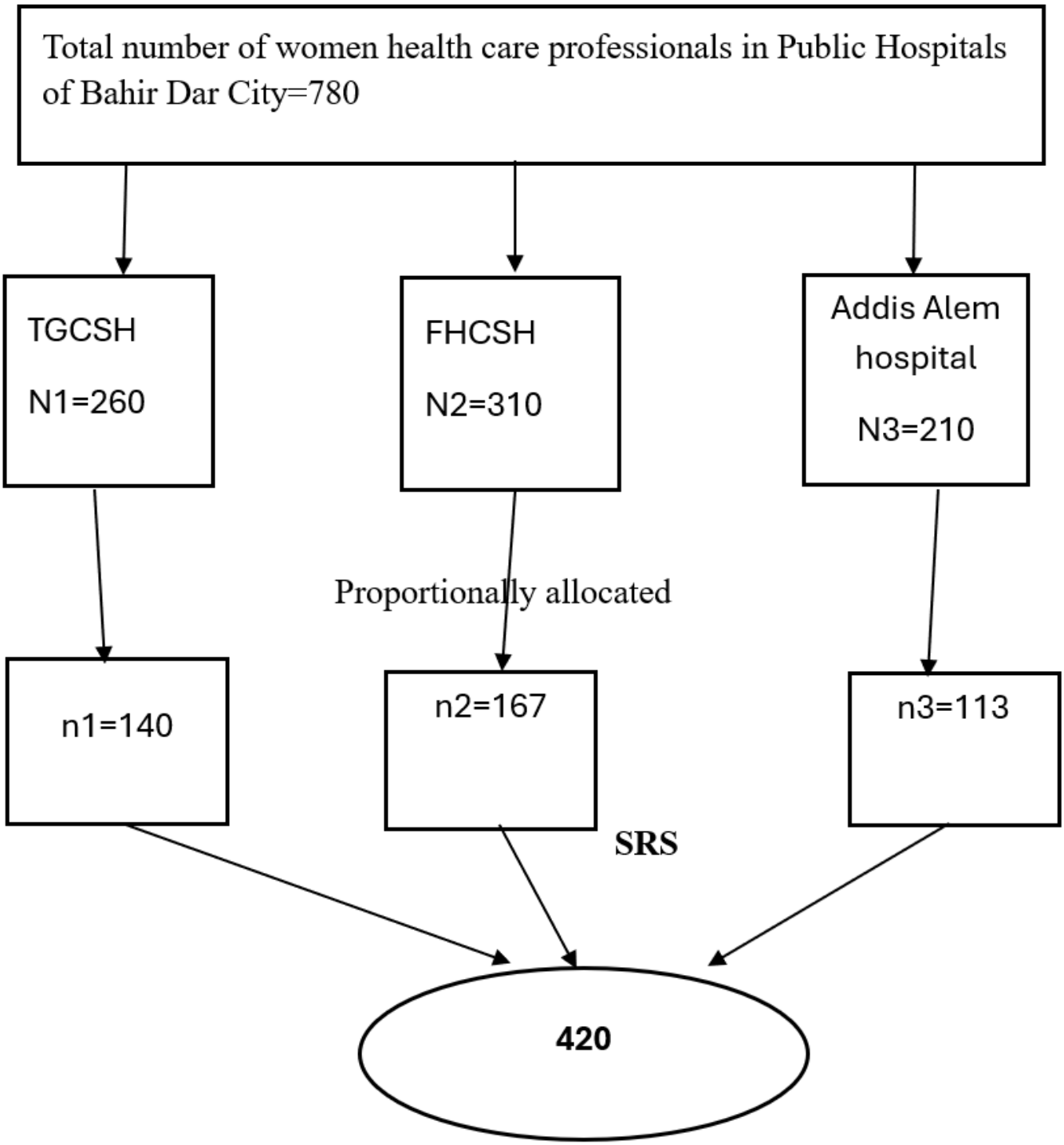

Figure 1

Sampling procedure on knowledge, attitude and practice of cervical cancer screening

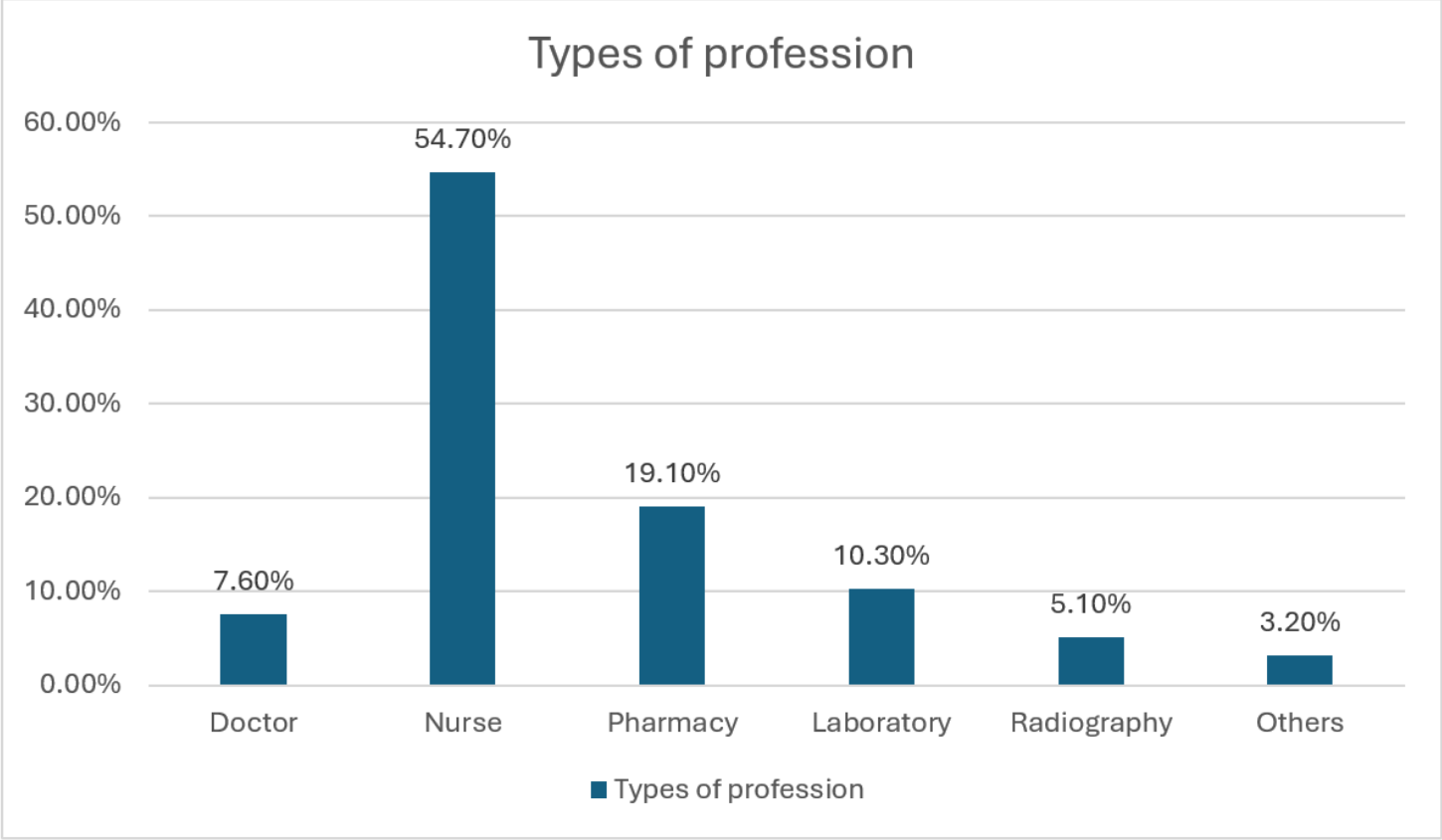

Figure 2

Types of profession among study participants at Public Hospitals in Bahir Dar City, Northwest Ethiopia, 2026.

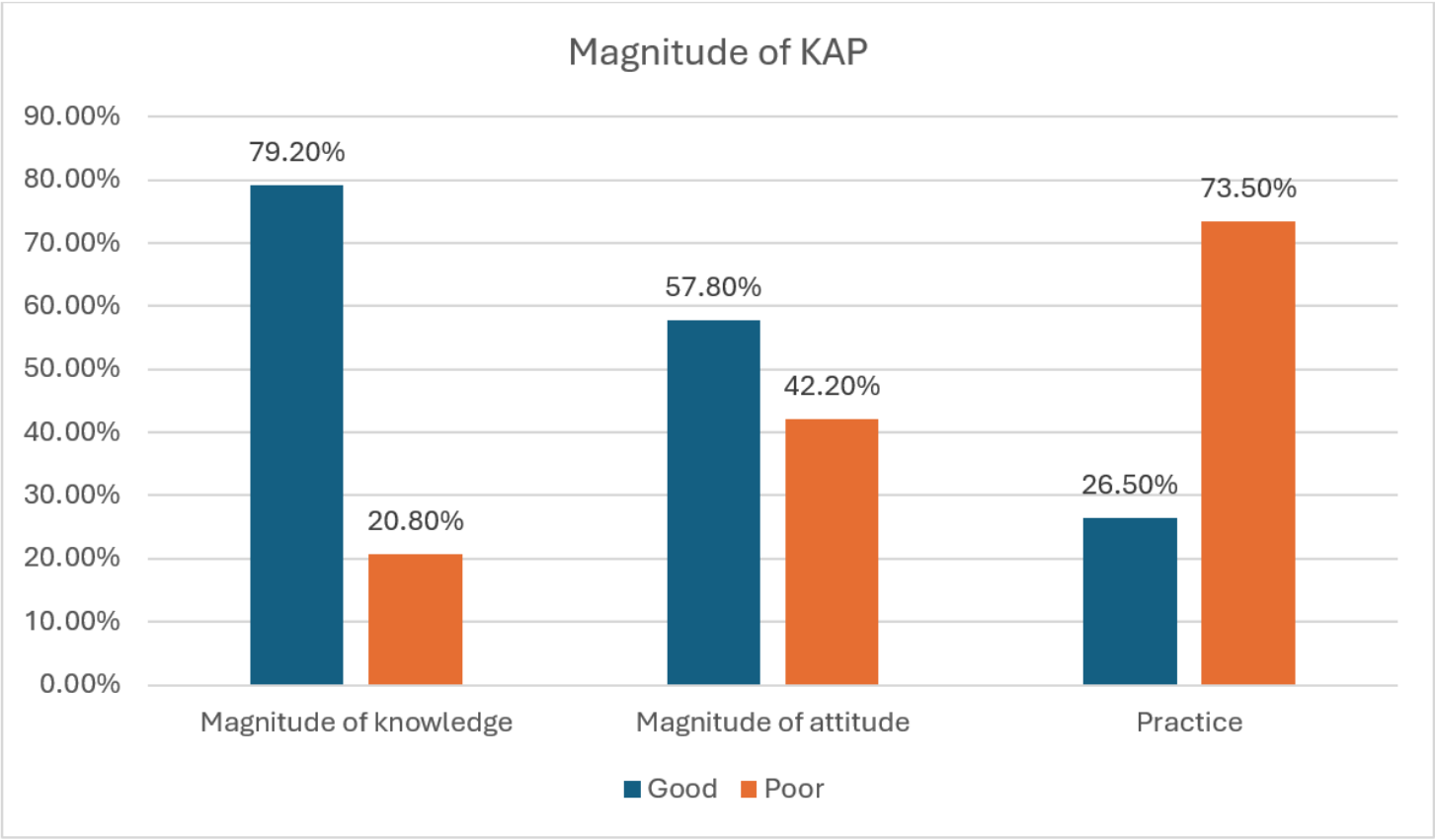

Figure 3

Magnitude of knowledge, attitude, and practice among study participants at public hospitals in Bahir Dar City, Northwest Ethiopia, 2026.

Supplementary Files

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- EnglishlanguageVersionQuestionnaires.pdf