Women's Perception regarding Cervical CancerScreening

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Abstract

Background: Cervical cancer is a serious public health problem and one of the second leading causes of cancer-related mortality among women worldwide. **Aim:** This study aimed to evaluate Women's Perception regarding Cervical Cancer Screening **Research Design:** A Descriptive design was used in this study. **Subjects**: A purposive sample was utilized and take 382 women in three months., **Setting:** This study was conducted at outpatient gynecology and family planning clinics, in Elsanta central hospital in AL Gharbia governorate. **Tools of date collection: 2 Tools: Tool I** A structured interviewing questionnaire sheet include 3 parts the socio -demographic characteristics, Obstetrical, gynecological, and medical history and women's knowledge regarding cervical cancer screening **Tool II** Women 's attitude toward Cervical cancer screening measured on 3-point Likert scale. **Results**: This study showed that 85.6% of the studied women have poor level of knowledge regarding cervical cancer screening, 9.9% of them have fair level, 4.5% of them have good level. While 69.6% of the studied women have positive attitude toward cervical cancer screening and30.4% of them have negative attitude. **Conclusion:** the current study concluded that Most of the studied women had poor level of total knowledge, minority of them had fair and good level, more than two thirds of the studied women had positive attitude towards cervical cancer screening, less than one third of them had negative attitude. and there was highly significant positive correlation between total knowledge of the studied women and their total attitude. **Recommendation:** Design and implement of educational program to empower women's knowledge about cervical cancer screening.

Key words: perception, cervical cancer, and screening.

Introduction

Cervical cancer is robbing us of our mothers, daughters, sisters, and grandmothers, impacting our communities, and threatening the social and economic fabric of society. Even though cervical cancer is preventable, treatable, and only cancer with a clear path to elimination, thousands of women are dying unnecessarily in the prime of their lives from this preventable and treatable disease. (***WHO, 2020)***

Cervical cancer refers to a malignancy that affects a woman's cervix which is considered as one of the most important health issues that affects millions of women worldwide, particularly in developing countries.

(Ratul, *et al 2022)*

Screening of cervical cancer should be started at the age of 30 years and beyond. globally, one woman dies from cervical cancer every two minutes. Access to screening of cervical cancer remains a challenge for many women in low and middle-income countries, further highlighting inequities in women's healthcare. **(WHO 2020).**

Cervical cancer screening awareness and uptake is reported to be low in developing countries. The nurse as a professional has an important role to play in the early detection and prevention of cervical cancer and these roles are expanding. Nurses are placed in strategic positions to provide information on cervical cancer and its preventive strategies. **(Ndikom,etal,2019)**

A study conducted in Elmina showed that only 6.4% of women had knowledge about cervical cancer and 2.3% had knowledge about Pap smear tests, Therefore efforts to increase awareness, knowledge and understanding of the perceptions of women about cervical cancer and screening through the provision of an

educational intervention will be an important step in promoting the health of women. Health education may enable women to increase their intention to screen. **(Ebu, *et al 2019)***

Significance of the study:

According **Globally** Cancer of the cervix uteri prevalence about **6,5** %, with an estimated **604,127** new cases and **341,831** deaths. **(IARC/WHO, 2020).**

In Egypt In recent years, there has been an increase in the number of women with cervical cancer About **1,320** new cervical cancer cases are diagnosed and **744** die from the disease in 2021. ranks as the 13th leading cause of female cancer and the 9th most common female cancer in women aged 15 to 44 years. **(Human Papillomavirus and Related Diseases Report, EGYPT 2021).**

Cervical cancer is a serious public health problem and is one of the second leading causes of cancer-related mortality among women worldwide. Its epidemiology and health impacts are not only affecting women, but also their families, communities, and social institutions. **(Akokuwebe, et al 2021).**

Therefor the present study aimed to assess women's knowledge and attitude toward cervical cancer screening that may help in early detection , reduce morbidity and mortality of cervical cancer .

Aim Of The Study

This study aimed to evaluate Women's Perception regarding Cervical Cancer Screening.

Research Questions:

- What is the level of Women's knowledge regarding Cervical Cancer Screening?
- What is the Women's attitude regarding Cervical Cancer Screening?
- Is there relation between Women's knowledge and their attitude regarding Cervical Cancer Screening?

Subject And Methods

Research Design:

Descriptive design was utilized to conduct this study. descriptive research is description of the situation as it exists at present. the main characteristic of this method is that the researcher has no control over the variables, he can only report what has happened or what is happening. **(Cr, K.,2020).**

Study Settings:

This study was conducted at outpatient gynecology and family planning clinics, in Elsanta central hospital in AL Gharbia governorate. the only governmental hospital in center covers 44 village and 103 manor which serves many patients.

Subject:

A purposive sample was used, consist of 382 women. out from **48.000** cases who attend the previous mentioned setting during previous year 2021 , at confidence level 95%**(Thompson, 2012)** .

$$n=\frac{N\times p(1-p)}{\left[\left[N-1\times\left(d^2\div z^2\right)\right]+p(1-p)\right]}$$

48000*(0.5*0.5) = 12000

n=——————————— 382

47999*(.0025/3.8416)47.999*.000651= 31.247+0.25= 31.497

Which:

n= Sample size

N= Total size

Z= 1.96

d= Error level 5%

p= 0.5.

Women were included in study not diagnosed with cervical cancer.

Tools of Data Collection:

two tools were used for data collection.

Tool I: A Structured interviewing questionnaire, it was designed.

by the researcher based on reviewing the related literatures **(Aynalem, et al., 2020 , Bakan ,et al., 2021& Tsegay ,et al., 2020)**. include 3 parts.

***Part* I**: *women' socio -demographic characteristics (*from Q1-Q7)

It included multiple choice questions as (Age, Level of education, occupation, residence , marital status …etc.)

***Part* II**: Obstetrical, gynecological, and medical history*(*fromQ8-Q16)

It included multiple choice questions & Open question questionnaires as (Obstetric history, duration of marriage, gravidity, parity, using contraceptive method, gynecological disease, medical disease, and surgical history, …etc.)

***Part* III*:* women's knowledge regarding cervical cancer screening.**

It included 14 items multiple choice questions & Open question questionnaires start from Q17-Q30 such as(concept of cervical cancer, types, risk factors, symptoms, methods of screening, prevention, and source of information, …etc.)

Scoring system of knowledge:

The scoring system responses ranged from (1-3) the correct answer is scored (3), incomplete correct answer is scored (2) and the incorrect or don't know answer is scored (1).the total knowledge score was (39) which divided into 3 categories :

Score from < 60 % consider poor knowledge.

Score from 60 % ≤ 75% consider fair knowledge.

Score from ≥75% consider good knowledge.

Tool II: Women 's attitude toward Cervical cancer screening

Adapted from **(Obol,etal., 2021 & Tsegay ,et al., 2020)**.it was used to assess women attitude regarding cervical cancer screening , included 14 items measured on 3-point Likert scale (1 disagree, 2 neutral and 3 agree). modified according to the aim of this study, added different questionnaire and statements which were formulated negatively were transformed to positive statements. revised by professor, Faculty of Literature, Tanta University for tool validity.

Scoring system of attitude:

The total attitude score was (42), the participants who scored equal or above the mean (≥56) were considered as having positive attitudes while participants who scored below the mean were considered as having negative attitudes.

II-Operational Design:

The operational design includes preparatory phase, content validity and reliability, pilot study and field Work

Preparatory phase

The researcher reviewed of the current and past, local, and international related literature and theoretical knowledge of various aspects of the study using books, articles, internet, periodicals, and magazines to be acquainted with the problem and guided them in the process of tools' designing.

The researcher visited the previous mentioned setting, collected information about the nature of setting & number of women who attended the previous mentioned setting.

Content validity and Reliability

Tool for data collection was validated by a jury group consist of 3 experts' maternal & neonatal health nursing department, Ain Shams University. The tools were distributed to assess its comprehensiveness, clarity, and accuracy. The tools were rephrased based on the jury opinion, their recommendations, additions, correction, and modification of some item were done, and tests retest was performed for reliability by Alpha Cronbach reliability analysis.

Pilot study

A pilot study was conducted on 39 women who represented 10% of the total sample (382) to ensure the applicability of the tools and the time needed to complete Questionnaire. No modification was needed and the pilot sample wasn't excluded.

Field Work

- The researcher attended at the previous mentioned setting, period of data collection was 3 months started at the end of January up to the end of April 2023, 3 days/ week starting from 9 am to 2 pm.
- First, the researcher introduced herself to women in confident and trust to participate in the study in waiting area in group's average number 3-4 women, aim of the study was simply explained, then obtain their oral consent. The average number of women interviewed per week were (30-35 women / week).
- Then the researcher interviewed each woman individually to explain how to fill the tools and answered her inquiries. Illiterate women filled the tools with help of the researcher.
- The researcher was asked to finish a structured interviewing questionnaire within (10-15) minutes and given them 5 minutes to finish the Likert scale.
- The total time of all tools was 15-20 minute. These were repeated daily till the sample size was obtained. finally, data was entered and statistical analysis and calculation was conducted.

III-Administration Design:

An official written approval letter clarifying the purpose of study was obtained from Dean of Faculty of Nursing Ain Shams University and an official permission was obtained from the director of Elsanta central hospital.

Ethical Considerations:

The research approval was obtained from the Scientific Research Committee from Faculty of Nursing - Ain Shams University before starting the study.

women were notified that they can participate or not in the study and they have the right to withdraw from the study at any time without any effect on the services she received from the hospital.

The researcher clarified the study aims to the subjects included in the study to obtain their oral consent to participated in the study.

The researcher assured the anonymity and confidentiality of the subject data.

The study didn't harm dignity, tradition, and religious aspect of the women.

IV-Statistical Design:

The statistical analysis of data was done by using the computer software of Microsoft Excel Program and Statistical Package for Social Science (SPSS) version 25. Data were presented using descriptive statistics in the form of frequencies and percentage for categorical data, the arithmetic mean (X) and standard deviation (SD) for quantitative data.

Qualitative variables were compared using **chi square test** (X) 2, P-value to test association between two variables and **Pearson correlation test** (R- test) to the correlation between the study variables.

Degrees of significance of results were considered as follows:

- P-value ≥ 0.05 Not significant (NS)
- P-value < 0.05 Significant (S)
- P-value < 0.01 Highly Significant (HS).

Results

The main findings of this study were summarizing as follows:

Table (1): Shows that, 47.1% of the studied women were aged between 30 – 39 years, the Mean SD of age was 32.96 ± 7.38 years. Also, 84.6% of them reside in rural areas. Moreover, 45.6% of them have high education. Furthermore, 56.3% of them were housewife. As regard to marital status, 74.9% of them were married. Also, 41.6% of them have been married for 4-10 years, the Mean SD of duration of marriage was 9.37 ± 4.58 years. Moreover, 52.1% of them have insufficient income.

Figure (1): Shows that, 99.2% of the studied women don't know the risk

factor of cervical cancer.

Figure (2): Shows that, 94.0% of the studied women don't know the signs of cervical cancer.

Figure (3,4): shows that, 98.2% and 99.2% of the studied women don't know the pap smear and vaccination of cervical cancer, respectively.

Figure (5): shows that, 85.6% of the studied women have poor level of total knowledge regarding cervical cancer screening. Also, 9.9% of them have fair level. While 4.5% of them have good level.

Figure (6): shows that, 69.6% of the studied women have positive attitude towards related cervical cancer screening. While 30.4% of them have negative attitude.

Table (2): Displays that, there was a highly statistically significant relation between total knowledge score of the studied women and their gynecological and family history as endometriosis, genital tract infection and polycystic ovarian syndrome Also, there was statistically significant relation with history from uterine fibroids, intrauterine bleeding, and abnormal vaginal discharge.

Table (3): Displays that, there was a highly statistically significant relation between total attitude score of the studied women and their gynecological and family history as history from uterine fibroids, polycystic ovarian syndrome, abnormal vaginal discharge, family history of cancer and intrauterine bleeding.

Table (4): Indicate that, there was highly significant positive correlation between total knowledge of the studied women and their total attitude towards cervical cancer screening.

Table (1): Frequency and percentage distribution of the studied women according to their general characteristics **(n=382).**

General characteristics	No.	%
Age (years)		
15 - 19	34	8.9
20 - 29	103	27.0
30 - 39	**180**	**47.1**
40 - 49	45	11.8
50 - 59	11	2.9
≥ 60	9	2.3
Mean SD **32.96 ± 7.38**		
Residence		
Urban	59	15.4
Rural	**323**	**84.6**
Educational level		
Illiterate	13	3.4
Basic education	67	17.5
Secondary education	128	33.5
High education	**174**	**45.6**
Occupation		
Working	167	43.7
Housewife	**215**	**56.3**
Marital status		
Married	**286**	**74.9**
Divorced	29	7.6
Widow	51	13.3
Single	16	4.2
Duration of marriage		
<1 year	47	12.3
1 – 3 years	93	24.4
4– 10 years	**159**	**41.6**
>10 years	67	17.5
Mean SD **9.37 ± 4.58**		
Family income		
Enough	152	39.8
Not enough	**199**	**52.1**
Enough and more	31	8.1

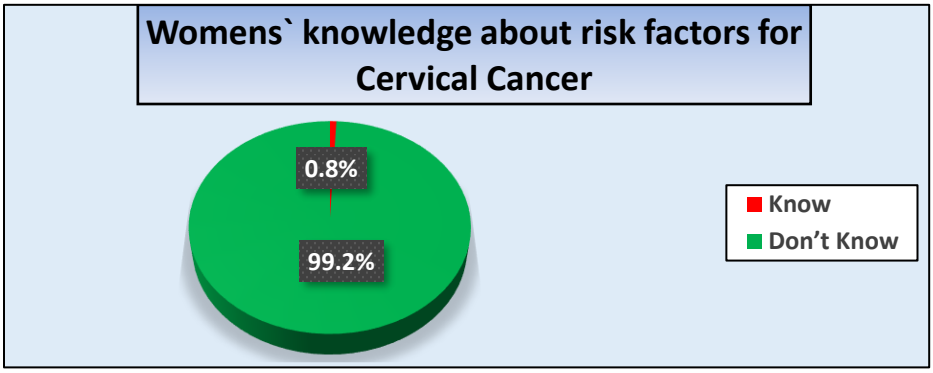

Figure (1): Percentage distribution of the studied women according to their knowledge about riskfactors for cervical cancer **(n=382).**

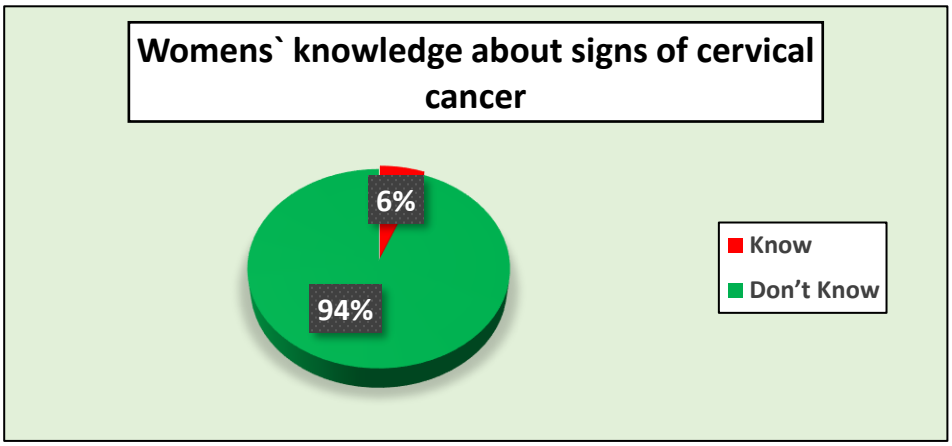

Figure (2): Percentage distribution of the studied women according to their knowledge about signs of cervical cancer **(n=382).**

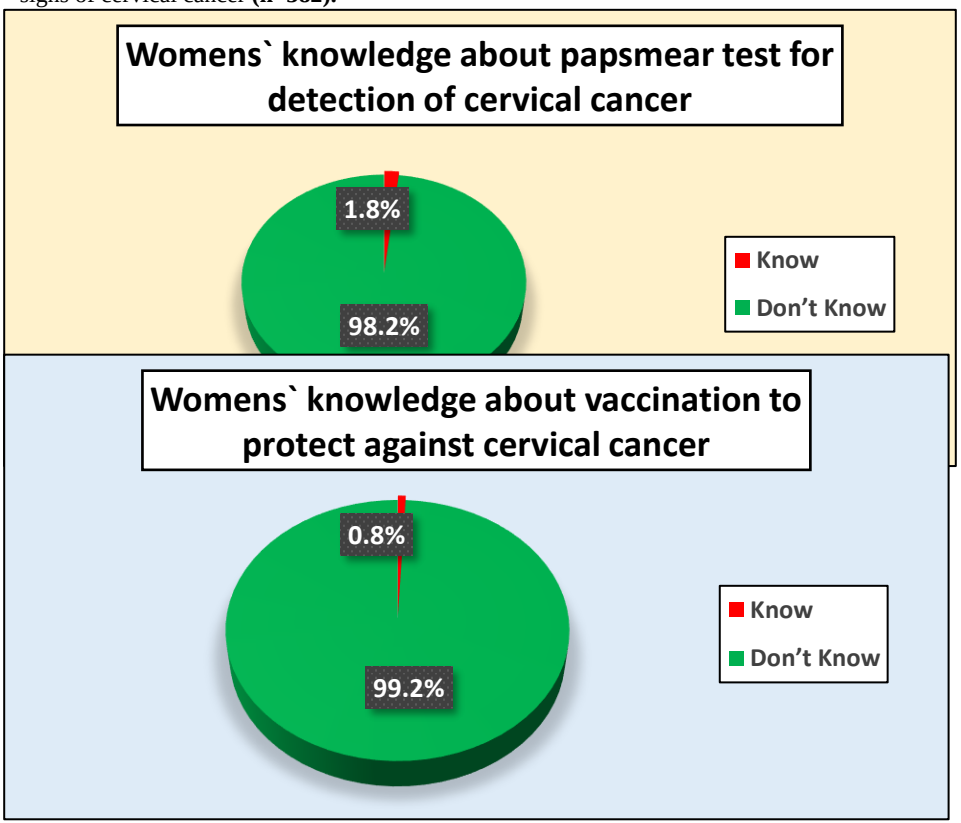

Figure (3): Percentage distribution of the studied women according to their knowledge about pap smear test for detection of cervical cancer **(n=382).**

Figure (4): Percentage distribution of the studied women according to their knowledge about vaccination against cervical cancer **(n=382).**

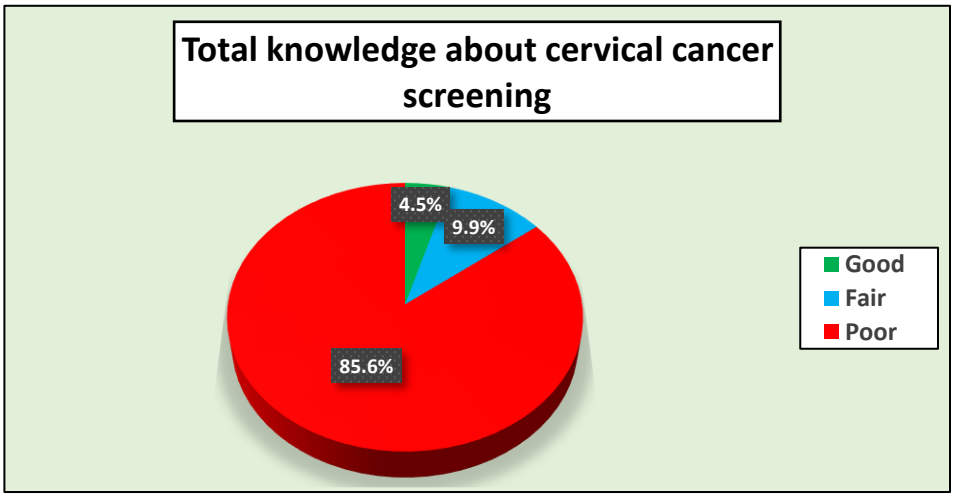

Figure (5): Percentage distribution of the studied women according to their total knowledge about cervical cancer screening **(n=382).**

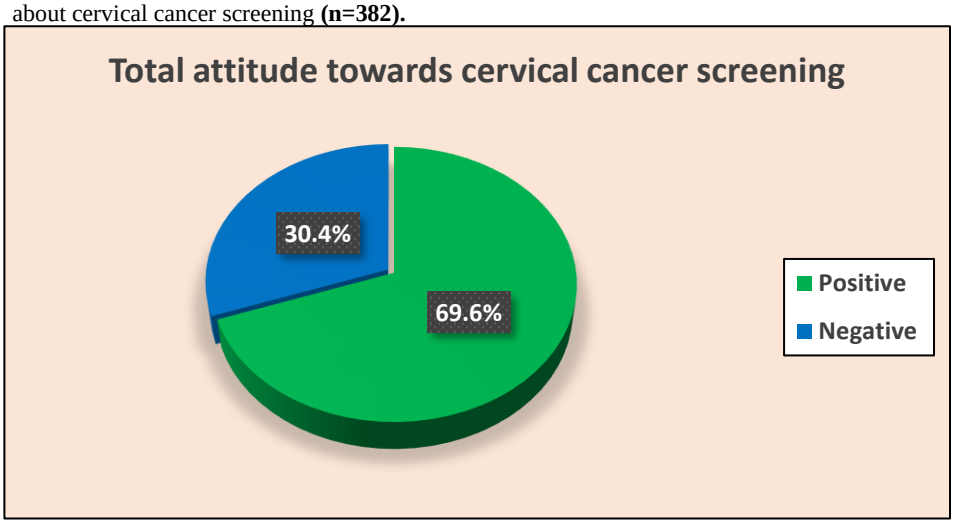

Figure (6): Percentage distribution of the studied women according to their total attitude towards cervical cancer screening **(n=382).**

Table (2): Relationship between gynecological and family history of the studied women and their total knowledge regarding cervical cancer screening **(n=382).**

Gynecological and family history		Levels of total knowledge						X^2	P-Value
		Good (n=17)		Average (n=38)		Poor (n=327)			
		No.	%	No.	%	No.	%		
Uterine Fibroids	Yes	7	41.2	3	7.9	33	10.1	16.10	0.010*
	No	10	58.8	35	92.1	294	89.9		
Endometriosis	Yes	3	17.6	0	0.0	3	0.9	29.92	0.000**
	No	14	82.4	38	100.0	324	99.1		
Genital Tract Infection	Yes	4	23.5	0	0.0	7	2.1	27.68	0.000**
	No	13	76.5	38	100.0	320	97.9		
Polycystic Ovarian Syndrome	Yes	6	35.3	0	0.0	26	8.0	19.59	0.000**
	No	11	64.7	38	100.0	301	92.0		
Intrauterine Bleeding	Yes	4	23.5	0	0.0	47	14.4	7.673	0.022*
	No	13	76.5	38	100.0	280	85.6		
Abnormal vaginal discharge	Yes	8	47.1	4	10.5	61	18.7	10.44	0.015*
	No	9	52.9	34	89.5	266	81.3		
Family history of cancer	Positive	3	17.6	4	10.5	24	7.3	5.683	0.224
	Negative	14	82.4	34	89.5	284	86.9		
	Don't Know	0	0.0	0	0.0	19	5.8		

X^2 =chi-square test. No statistically significant at p > 0.05. *Significant at p ‹ 0.05. **highly significant at p ‹ 0.01.

Table (3): Relationship between gynecological and family history of the studied women and their total attitude towards cervical cancer screening **(n=382).**

Gynecological and family history		Levels of total attitude				X^2	P-Value
		Positive (n=266)		Negative (n=116)			
		No.	%	No.	%		
Uterine Fibroids	Yes	19	7.1	24	20.7	14.83	0.000**
	No	247	92.9	92	79.3		
Endometriosis	Yes	2	0.8	4	3.4	3.799	0.051
	No	264	99.2	112	96.6		
Genital Tract Infection	Yes	5	1.9	6	5.2	3.131	0.077
	No	261	98.1	110	94.8		
Polycystic Ovarian Syndrome	Yes	11	4.1	21	18.1	20.53	0.000**
	No	255	95.9	95	81.9		
Intrauterine Bleeding	Yes	25	9.4	26	22.4	11.82	0.011*
	No	241	90.6	90	77.6		
Abnormal vaginal discharge	Yes	37	13.9	36	31.0	15.32	0.000**
	No	229	86.1	80	69.0		
Family history of cancer	Positive	12	4.5	19	16.4	15.66	0.000**
	Negative	239	89.9	93	80.2		
	Don't Know	15	5.6	4	3.4		

X^2 =chi-square test. No statistically significant at p > 0.05. *Significant at p ‹ 0.05. **highly significant at p ‹ 0.01.

Table (4): Correlation between total knowledge of the studied women and their total attitude towards cervical cancer screening **(n=382).**

Items	Total knowledge	
	r	P-value
Total attitude	0.275	0.000**

r= correlation coefficient test. **highly significant at p ‹ 0.01.

Discussion

According to general characteristics of the studied women , findings of the current study illustrated that, more than two fifth of the studied women were aged between 30 – 39 years with Mean Sd 32.96 ± 7.38, most of the studied women reside in rural areas, It may be due to the main and major health services were not available in the rural areas so they attended the previous mentioned study setting because it the only hospital in the center contain 44 village . Regarding occupation more than half of the studied women were housewife. Regarding educational level more than two fifths of the studied women had high education. Regarding marital status about three quarters of the studied women were married. This may be related to the age group of the present study that usually be married according to culture in Egypt. Also, more than half of the studied women had insufficient income. In Egypt the family income level is not enough for daily living needs this might be due to high standards of living.

This result was agreed with **Ngwu et al.,(2022)** who applied study to examined the perception and practice of cervical cancer screening among women and showed that less than two thirds of the studied women reside in rural areas. While contrasted with **Burrowes, Holcombe, Leshargie, (2022)** who applied study in Ethiopia to assess the availability of cervical cancer care; explore care barriers and sources of delay; and describe women's and providers' perceptions and experiences of care and revealed that one fifth of the studied women reside in rural areas. From the researcher's point of view this difference may be due to the difference in socio-demographic characteristics between studied samples.

According to total knowledge about cervical cancer screening, the current study result showed that most of the studied women had poor level of total knowledge regarding cervical cancer screening. Also, minority of them had fair and good level. This result may be due to unavailable of information about cervical cancer screening, and this might be due to most of the studied women were from rural areas where the health education and services are inadequate.

These finding in the same line with **Ahmed, (2023)** who applied study in Egypt to explore the effect of teaching back model intervention on women's knowledge, attitude and barriers regarding cervical cancer and its screening and showed that less than one fifth of the studied women had adequate knowledge levels toward cervical cancer screening pre-program. Also, in accordance with **Tebeu et al., (2020)** in a study to assess knowledge, attitudes, and practices on cervical cancer screening by women in Brazzaville-Congo and noted that less than three quarters of the studied women had an unsatisfactory level of knowledge.

While contrasted with **Kimambo, Mohamed, & Mikheal, (2023)** who conducted study in Tanzania to assess women's knowledge, attitude and practice regarding cervical cancer screening and cleared that slightly more than two fifths of studied women had satisfactory knowledge while more than half had unsatisfactory knowledge regarding cervical cancer screening.

Additionally, the present study result showed that the majority of the studied women didn't know the risk factor of cervical cancer. This result in the same line with **Olubodun, Odukoya, & Balogun, (2019**) who applied study in Nigeria to assess knowledge, attitude and practice of cervical cancer prevention, among women residing in an urban slum in Lagos, South West, Nigeria and showed that the majority of the studied women didn't know the risk factor of cervical cancer. This result may be due to low of awareness regarding cervical cancer and its screening between studied samples.

According to knowledge about signs of cervical cancer, the current study result showed that, the majority of the studied women didn't know the signs of cervical cancer. This may be due to the lack of health education from doctor and nurses about cervical cancer and its screening. As the present study result showed that minority of the studied women had information about cervical cancer screening from doctor and nurses. This result was contrasted with the study done by **Rimande-Joel & Ekenedo, (2019)** who applied study to assess knowledge, belief and practice of cervical cancer screening and prevention among women and showed that highly percentage of the studied women had correct knowledge regarding signs and symptoms of cervical cancer. This may be due to difference of level of community awareness regarding cervical cancer and its screening between studied samples.

Moreover, the current study result showed that, the majority of the studied women didn't know the screening and vaccination of cervical cancer, respectively. This may be accounted for by the wrong beliefs held by the women about their vulnerability to cervical cancer and about cervical cancer screening.

This result was in accordance with **Endalew, et al.,(2020)** who showed that the majority of the studied women didn't know any methods of cervical cancer screening., and agreed with **Tekle et al., (2020)** who applied study in Ethiopia to investigate knowledge, attitude and practice towards cervical cancer screening among women and associated factors in hospitals of Wolaita Zone, and found that less than three quarters of the studied women their knowledge related to screening was poor.

According to total attitude of the studied women towards cervical cancer screening, the current study result showed that more than two thirds of the studied women had positive attitude towards cervical cancer screening. While less than one third of them had negative attitude. This result may be due to the studied women known that screening important for early detection of cancer.

This result was supported with **Tadesse, Tafa & Demissie, (2022)** who conducted study to assess knowledge, attitude, and practice (KAP) toward cervical cancer screening and showed that less than three quarters of the studied women had positive attitude towards cervical cancer screening, also supported with **Tsegay, Araya, & Amare, (2020)** who showed that highly percentage of the studied women had positive attitude on cervical cancer screening.

While contrasted with **Aziz et al., (2022)** who applied study in Egypt to determines the level of premenopausal women' s awareness and barriers regarding cervical cancer and it's screening and showed that around two thirds of the studied women had a negatively attitude toward cervical cancer screening.

In addition, there was a highly statistically significant relation between total knowledge score of the studied women and their gynecological and family history as history from endometriosis, genital tract infection and polycystic ovarian syndrome. Also, there was statistically significant relation with history from uterine fibroids, intrauterine bleeding, and abnormal vaginal discharge. this result may be due to they had more chance to exposure to information about cervical cancer screening.

This result was in accordance with **Al Yahyai, Al Raisi, & Al Kindi, (2021)** who found that there were no significant associations were noted between knowledge scores for either cervical cancer or Pap smear testing and other sociodemographic characteristics, the presence of a family history of cervical cancer, or the presence of a personal history of genital infection diseases, or cervical cancer.

The present study result showed that, there was highly significant positive correlation between total knowledge of the studied women and their total attitude towards cervical cancer screening.

This result was supported with **Kimambo, Mohamed, & Mikheal, (2023)** who reported that there was a significant weak positive association was found between women total score of knowledge about cervical cancer screening and total score of attitude toward it. And this result was similar with **Ahmed, (2023)** who mentioned that there was positive correlation between knowledge regarding cervical cancer and its screening and attitude of the studied sample pre-program implementation.

Conclusion

Based on the present study findings it can be concluded that, most of the studied women had poor level of total knowledge regarding cervical cancer screening. Also, minority of them had fair and good level respectively. more than two thirds of the studied women had positive attitude towards related cervical cancer screening. While less than one third of them had negative attitude. Additionally, there was highly significant positive correlation between total knowledge of the studied women and their total attitude towards cervical cancer screening.

Recommendations

In the light of the finding of the present study, the following recommendations are suggested:

- Design and implement of educational program to empower women's knowledge about cervical cancer screening.
- Public health information to all women about cervical cancer screening and vaccination through mass media.

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