

## Investigate Technical Institution Student Nurses' Knowledge and Attitude Concerning Uterine Malignancy

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### Abstract

**The study was aimed to:** Investigate student nurse's knowledge and attitude concerning uterine malignancy. **Research design:** A descriptive study design was used. **Sample:** convenient sample of 200 students was obtained from technical institute of nursing, Faculty of Nursing Ain Shams University. **Tools:** First tools, Self administered questionnaire schedule to assess student nurses' general characteristics and their knowledge regarding uterine malignancy. Second tool, questionnaire to assess student nurses' attitude regarding uterine malignancy. **Results:** (46%) among studied students had correct knowledge while (54%) among studied students had incorrect knowledge about uterine malignancy, more than 42% of studied students were reported the source of their knowledge was from education. (88.5%) among studied students had positive attitude toward uterine malignancy. There were statistically significant differences between studied students sex, marital status, academic year, qualification and knowledge. There were statistically significant difference between studied student marital status and attitude regarding uterine malignancy. There were statistically significant positive correlation between total studied student's knowledge and total studied student's attitude. **Conclusion:** More than two fifth of studied student's had correct knowledge and Majority among studied students had positive attitude toward uterine malignancy. **The study recommended** that; the undergraduate technical institute curriculum must be revised and the issue of uterine malignancy must be integrated in the undergraduate course specs. **Further research** are needed to investigate student nurses' practical skills regarding care of women with uterine malignancy at gynecological oncology department.

**Key words:** uterine malignancy – knowledge - attitude

### Introduction

Uterine cancer is the most common cancer of the female reproductive tract. It occurs in the inner lining of the uterus, called the endometrium. The disease generally strikes women between the ages of 50 and 65. Cancer of the uterine (fundus or corpus) has increased in incidence, partly because people are living longer and because

reporting is more accurate (Jemal *et al.*, 2011).

Furthermore uterine malignancy is a cancer that arises from the endometrial (the lining of the uterus or womb). It is the result of the abnormal growth of cells that have the ability to invade or spread to other parts of the body. The first sign is most often vaginal bleeding not associated with a menstrual period (National Cancer Institute, 2014).

Uterine cancer often presents with bleeding after menopause or extensive bleeding before menopause. This common presentation if ignored can result in anemia or low blood counts. Anemia and bleeding can cause significant fatigue. Abdominal pain and bloating can be caused by uterine cancer and in the advanced stages when spread to the lungs for example can cause shortness of breath (Hochman, 2016).

Moreover, knowledge is a necessary predisposing factor for behavioral change. Knowledge also plays an important role in improvement of health seeking behavior. Not only that knowledge might dramatically improve the attitude, disbelieve, and misconception and consequently enhance screening practice (Muhammad, 2007).

Regularly, nursing attitude begin with individual beliefs. These beliefs come from family, culture, social interactions, self-esteem and education. The nursing attitude continues to develop as a student. The type of exposure he/she had in the classes he/she takes and the lesson plans of the nurse educator all contribute to the values of a nurse. These values continue to develop over the course of his/her education and the emphasis is put on any one particular field of study. Wide spread recognition is that nurse educators have a fundamental role in the inclusion and transmission of nursing gvalues (Haigh & Johnson, 2007).

Often the practice of nursing requires good theoretical understanding of nursing knowledge and competence in technical skills, critical thinking, clinical decision-making, and assessment abilities (Klein, 2006).

Additionally, nurse students' clinical experience in nursing school had a long-term effect on their future competence. Many nursing administrators and educators suggest that confirming students' competency before graduation can potentially shorten the length of clinical orientations for new graduate

nurses after they enter the workforce (Greenberger et al., 2005).

### Operational definition

Technical nurse is a nurse who does not studied at a university the full career (5 year) and has a license at least in Peru but one who has studied 2 or 3 years in academy (Kenner and Finkelman, 2014).

**Knowledge:** Comprehension of facts, ideas, and information, gained through experience, instruction, and learning for a distinct use. (Eric, 2011)

**Attitudes:** A persisting set of beliefs and values that affect how one responds or Reacts. (Eric, 2011)

### Significance of the study:

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It is reported that rates of endometrial cancer are increased in a number of countries between the 1980s and 2010 (International Agency for Research on Cancer (2014). *World Cancer Report 2014*). This is believed to be due to the increasing number of elderly people and increasing rates of obesity (Hoffman et al., 2012).

While all disorders of the female reproductive system required understanding and skills in patient teaching on the part of the nurse. The nurse must also be sensitive to women's concerns and their possible, even probable, discomfort in discussing and dealing with these disorders.

Furthermore student nurses must had proper knowledge and attitude to provide proper management for patients with uterine malignancy, there for assessment of technical student nurses' knowledge and attitude regarding uterine malignancy is important for preparing student nurses' to be competent to provide high quality care regarding patient with malignancy.

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so this study was designed to investigate student nurses' knowledge and attitude regarding uterine malignancy to be used as data base in faculty of nursing in order to utilize in the future for other researches.

### **Aim of the study**

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Investigate student nurse's knowledge and attitude concerning uterine malignancy.

### **Research question:**

What are student nurses' knowledge and attitude concerning uterine malignancy?

### **SUBJECT AND METHODS**

**Research design:** A descriptive research design was used.

**Setting:** The study was conducted at technical institute of nursing, faculty of nursing Ain Shams University.

### **Subject:**

**Sample type:** A convenient sample.

**Sample size:** All students in the 1st and 2nd year of technical institute of nursing were included in the study, they were total (200 students; 78male& 122female) during first academic semester from September2015 until January 2016.

**Tools of data collection:** 1) **Self-administered questionnaire schedule:** it was developed by the researcher based on literature review; it was consisted of two parts:

**Part (I):** Included assessment general characteristics as age, marital status, qualification, academic year, experience, place of residence)

**Part (II):** It was designed to assess student nurses' knowledge regarding uterine malignancy (definition of cancer, type of reproductive cancer, definition of uterine malignancy, risk factor, signs and symptoms, diagnosis, &treatment of uterine malignancy it's complication &their source of knowledge

### **Scoring system:**

Each knowledge question was scored as (2) for correct answer and (1) for incorrect answer. While the total knowledge score was calculated as the following: Knowledge was considered correct if the percent score was equal and more than 60% and incorrect if it was less than 60%.

**2) Questionnaire modified from (Dang, et al, 2010):** It was used to assess student nurses' attitude regarding uterine malignancy. It contains 13 statements and is rated by the three-point Likert scale; "agree", "disagree", "uncertain"

The student's attitude was considered to be positive if the percent score was 70% or more and negative if less than 70%.

### **Ethical considerations:**

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- Informed consent was obtained from participant after explaining the purpose of the study.
- Tools of data collection were not touching moral, religious, ethical and culture aspect among the sample studied.
- Each participant had right to with draw from the study at any time.
- Human right was considered.
- Data was confidential and using coding system from data.

- Tools of data collection were burnt after Statistical analysis

#### **Administrative design:**

Firstly an approval were obtained from head of obstetric and gynecological department then an official approval were issued form dean of Faculty of Nursing, Ain Shams University to the director of technical clinical institute, Ain Shams University explaining the aim of the study to get the permission for data collection .**Operational design:**

**Preparatory phase:** It was included reviewing of local and international related literature about the various aspects of the research problem. This helped researcher to be acquainted with the magnitude of the problem, and guided her to prepare the required data collection tools. Then the researcher tested the validity of the tool through jury of expertise to test the content, knowledge, accuracy and relevance of question for tool.

#### **Pilot study:**

A pilot study was carried out on 10% of students from technical institute under study; for testing clarity, arrangement of the items, and time consuming for each tool. The students recruited in the pilot study were excluded from the current study subjects.

#### **Field work:**

At the beginning of interview the researcher start to introduce herself, briefly explains the study objectives, orients the students under study to the kind of questions then oral consent from student was obtained

The researcher attended the technical institute 3 times per week from 9 a.m to 2 p.m. each day group of students was interviewed and assessed students were selected according to their sequence institute from registration book.

Firstly each group of student were interviewed utilizing self administer interviewing questionnaire schedule. The duration for each interview was 20 minutes then the researcher assessing five student attitude utilizing questionnaire. This was repeated till the sample size reached 220students.

**Statistical Design:** The collected data were organized, categorized, tabulated and analyzed using the Statistical Package for Social Sciences (SPSS). Data were presented in tables and figure using numbers, percentages, means, standard deviations, chi – square(X<sup>2</sup>) test of significance was used in order to compare proportions between two qualitative parameters. Level of significance was threshold at 0.05 (P> 0.05= insignificant, P< 0.05 = significant and P< 0.01=highly significant).

#### **Results**

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**Table (1)** shows that (61%) of studied students were females, (83.5%) of studied students were less than 20 years, (78.5%) of them were from rural area, (67%) of studied students were in the first year, (96%) of studied students were single, (65.5%) of studied students had secondary education and (31%) of studied students were attended training courses, (51.6%) of studied students had private training meanwhile (48.4%) of them had governmental training regarding uterine malignancy. **Table (2)** clarifies that; (88.5%) of studied students had incorrect knowledge about symptoms of uterine malignancy, (77.50%) of studied students had correct knowledge about treatment of uterine malignancy,(67.5%) of studied students had incorrect knowledge about types of reproductive system cancer for women, meanwhile(80.5%) of studied students had incorrect knowledge about risk factor of uterine malignancy,(84.5%) of studied students had incorrect knowledge about diagnosis of uterine malignancy,(86%) of studied students had incorrect knowledge about complication of uterine malignancy.

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**Figure (1)** show that; studied student's were reported their source of knowledge regarding uterine malignancy from study, internet, media (42%, 30%, 21%) respectively .while reminder (5.5%) of studied student's were reported their source of knowledge from work and (.5%) of studied student's were reported their source of knowledge regarding uterine malignancy from training courses. **Figure (2)** shows that; (46%) of studied students had correct knowledge about uterine malignancy, mean while (54%) of studied students had incorrect knowledge about uterine malignancy. **Table (3)** Showed that; (92%) of studied students agreed for if uterine cancer found early, it can be cured and (73%) of studied students agreed for the medical team should inform woman with the cancer,(84%) of studied students agreed for Women's with uterine cancer treatment would enhance her chance

of living long,(73%) of studied students agreed for uterine cancer was a preventable disease,(91%) of studied students agreed for Support for the sick and providing them with knowledge about the disease and treatment to help them reduce stress and cope with her condition and (62%) of studied students disagreed for hysterectomy leads to lack of women's psychological & social adjustment. **Figure (3)** shows that; (88.5%) of studied students had positive attitude and (11%) of studied students had negative attitude regarding uterine malignancy. **Table (4)** presents a statistically significant positive correlation between total studied student's knowledge and total studied student's attitude regarding uterine malignancy as student's knowledge increases, their positive attitude increases.

**Table (1):**Frequency distribution of the general characteristics of studied students.

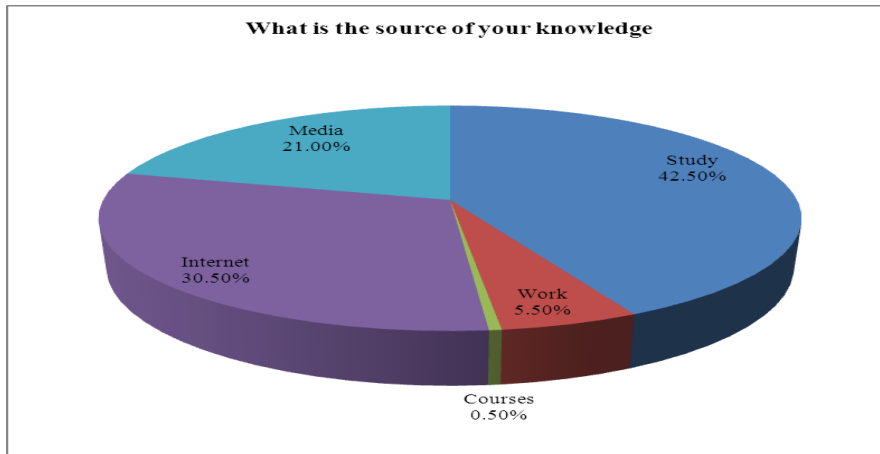
General characteristics	No =200	%
<b>Sex</b>		
Male	78	39.00
Female	122	61.00
<b>Age (years)</b>		
<20 years	167	83.50
>20 years	33	16.50
Mean± SD	19.20±2.76	
<b>Residence</b>		
Urban	43	21.50
Rural	157	78.50
<b>academic year</b>		
The first year	134	67.00
The second year	66	33.00
<b>Marital status</b>		
Single	192	96.00
Married	6	3.00
divorced	1	0.50
Widow	1	0.50
<b>Qualification</b>		
Diploma	69	34.50
Secondary	131	65.50
<b>Previous training courses</b>		
Yes	62	31.00
No	138	69.00
<b>If yes, place of training ( n=62)</b>		
Private	32	51.61
Government	30	48.39

**Table (2):** Frequency distribution of the studied student knowledge about uterine malignancy.

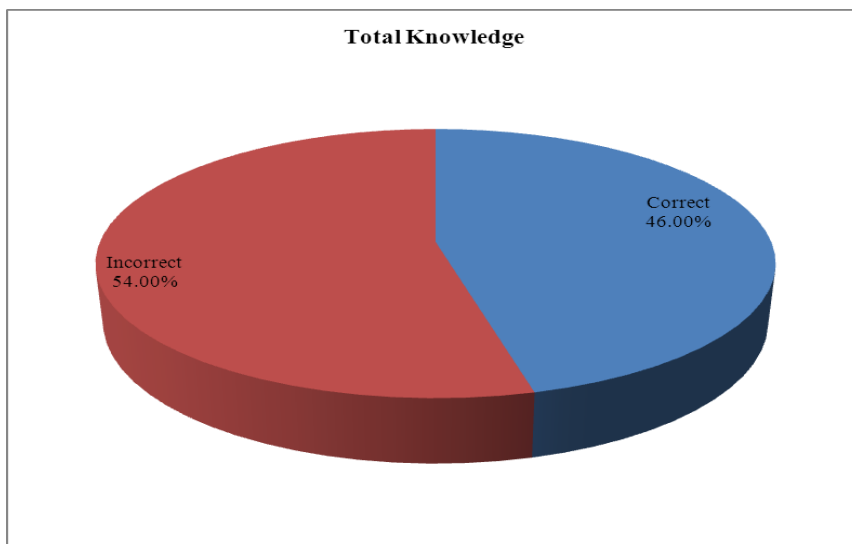
Items	Correct		in Correct	
	No.	%	No.	%
1) define cancer	98	49.00	102	51.00
2)define uterine malignancy	96	48.00	104	52.00
3) types of reproductive system cancer for women	65	32.50	135	67.50
4) risk factors related to uterine malignancy	39	19.50	161	80.50
5) symptoms of uterine malignancy	23	11.50	177	88.50
6) diagnosis of uterine malignancy	31	15.50	169	84.50
7) treatment of uterine malignancy	155	77.50	45	22.50
8) complications of uterine malignancy	28	14.00	172	86.00

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**Figure (1):** Frequency distribution of the studied student's source of knowledge about uterine malignancy.



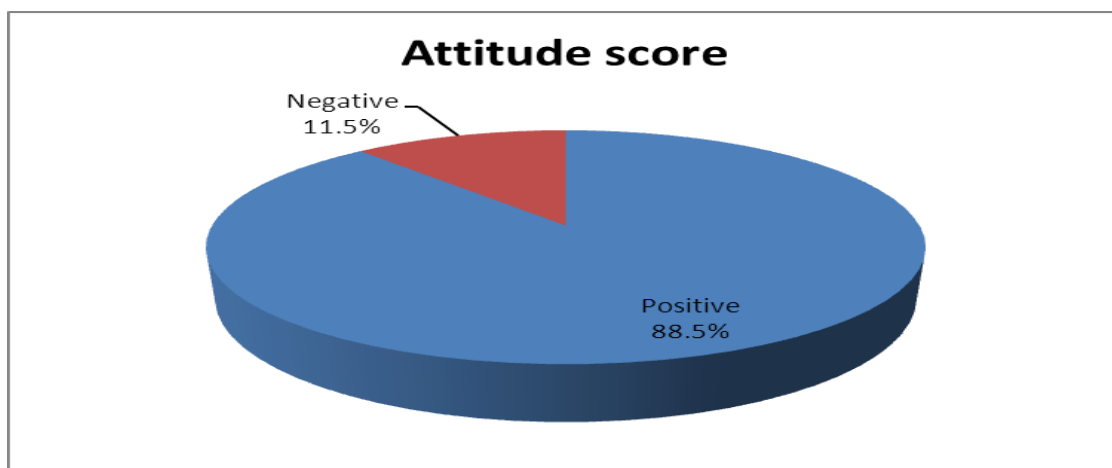
**Figure (2):** Total knowledge score of the studied students



**Table (3):** Frequency Distribution of the studied student's attitude regarding uterine malignancy.

Items	Agree		Uncertain		Disagree	
	No.	%	No.	%	No.	%
1) Women is more likely to get uterine cancer if she eats high diet in fat	89	44.50	56	28.00	55	27.50
2) Poverty may lead to uterine cancer	53	26.50	15	7.50	132	66.00
3) If uterine cancer found early ,it can be cured	184	92.00	9	4.50	7	3.50
4) The medical team should inform woman with the cancer	146	73.00	11	5.50	43	21.50
5) Women's with uterine cancer treatment would enhance her chance of living long	168	84.00	14	7.00	18	9.00
6) Surgical treatment is an essential treatment of uterine cancer	122	61.00	22	11.00	56	28.00
7) uterine cancer was a preventable disease	147	73.50	20	10.00	33	16.50
8) advanced women age become susceptible to uterinecancer	81	40.50	30	15.00	89	44.50
9) Hysterectomy affects the marital relationship	105	52.50	36	18.00	59	29.50
10) Support and providing the women with knowledge to help them take a decision regarding the type of treatment	181	90.50	11	5.50	8	4.00
11) Support and providing the women with knowledge about the disease and treatment to help them reduce stress and cope with her condition	182	91.00	12	6.00	6	3.00
12) hysterectomy as a result of cancer loses the women's sense of her femininity	48	24.00	20	10.00	132	66.00
13) hysterectomy leads to lack of women's psychological & social adjustment	62	31.00	13	6.50	125	62.50

**Figure (3):** Total attitude score of the studied students





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**Table (4):** Relation between studied students' knowledge and their general characteristics (n=200).

General characteristics.	Correct (n=92)		Incorrect (n=108)		Significant test	
	No.	%	No.	%	x2	p-value
<b>Age (years)</b>						
<20	72	78.26	95	87.96	3.394	0.065
≥20	20	21.74	13	12.04		
<b>Sex</b>						
Male	23	25.00	55	50.93	14.036	<0.001**
Female	69	75.00	53	49.07		
<b>Residence</b>						
Urban	16	17.39	27	25.00	1.704	0.192
Rural	76	82.61	81	75.00		
<b>academic year</b>						
First group	52	56.52	82	75.93	8.460	0.04*
Second group	40	43.48	26	24.07		
<b>Marital status</b>						
Single	86	93.48	106	98.15	8.860	0.031*
Married	6	6.52	0	0.00		
Divorced	0	0.00	1	0.93		
Widow	0	0.00	1	0.93		
<b>Qualification</b>						
Diplom	45	48.91	24	22.22	15.662	<0.001**
Secondary	47	51.09	84	77.78		
<b>Previous training courses</b>						
Yes	32	34.78	30	27.78	1.140	0.286
No	60	65.22	78	72.22		

**Table (5):** Relation between studied students’ attitude and their general characteristics (n=200).

General characteristics	Positive (n=177)		Negative (n=23)		Significant test	
	No.	%	No.	%	x <sup>2</sup>	p-value
<b>Age (years)</b>						
<20	147	83.05	20	86.96	0.225	0.635
≥20	30	16.95	3	13.04		
<b>Sex</b>						
Male	69	38.98	9	39.13	0.009	0.989
Female	108	61.02	14	60.87		
<b>Residence</b>						
Urban	39	22.03	4	17.39	0.260	0.610
Rural	138	77.97	19	82.61		
<b>Academic year</b>						
First group	118	66.67	16	69.57	0.077	0.781
Second group	59	33.33	7	30.43		
<b>Marital status</b>						
Single	170	96.05	22	95.65	8.606	0.035*
Marrid	6	3.39	0	0.00		
Divorced	1	0.56	0	0.00		
Widow	0	0.00	1	4.35		
<b>Qualification</b>						
Diplom	65	36.72	4	17.39	3.366	0.067
Secondary	112	63.28	19	82.61		
<b>Previous training courses</b>						
Yes	58	32.77	4	17.39	2.250	0.134
No	119	67.23	19	82.61		

**Table (6):** Relation between knowledge and attitude regarding uterine malignancy

Attitude	Knowledge			
	Correct		Incorrect	
	No.	%	No.	%
Positive	82	89.13	95	87.96
Negative	10	10.87	13	12.04
Pearson Correlation	0.189			
P-value	0.007			

**Discussion**

The aim of the present study was to assess student nurse's knowledge and attitude concerning uterine malignancy. This aim was significantly answered through the present study question which was: What are student

nurses’ knowledge and attitude concerning uterine malignancy?

The present study finding revealed that More than two fifth among studied student had correct knowledge and more than half among the studied student nurses had

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incorrect knowledge concerning uterine malignancy. This finding was agreed with (Tan *et al.*, 2010) who reported that the Majority of student had incorrect knowledge regarding uterine cancer in total score about uterine malignancy. This finding at the same line with (Witharana, Wijesiriwardhana, Jayasekara, Kumariand Rodrigo, 2015) who mentioned that the majority of participant still had incorrect level of knowledge concerning female malignancies.

This was agreed with (Kwadabeba and KwaZulu, 2009) who found that less than half among the studied student had correct knowledge about uterine cancer. The present study finding matching with (Mutyaba *et al.*, 2006) who reported that less than two fifth among studied subject had correct knowledge about uterine cancer.

The present study finding was disagree with (Owoeye and Ibrahim, 2013) who stated that Most of the female students had correct knowledge about uterine cancer. Also study conducted by (Al-Meeret *et al.*, 2009) revealed that most of participants had correct knowledge. In addition to study conducted by (Sichanh *et al.*, 2014) which reported that A slight majority of respondents had correct knowledge about uterine cancer and study cited by (Adegbesanet *et al.*, 2014) who reported that the most of studied subject had correct knowledge about uterine leiomyoma. This may be due to demographic and cultural difference and difference in accessing uterine malignancy knowledge among the two samples of studies.

Regarding the source of student nurse knowledge in the present study. It was observed that more than two fifth among studied student had received their knowledge from the institution, while only, less one third of studied student reported that they had received their knowledge from internet, and more than fifth of them received their knowledge from media and less than tenth of them received their knowledge from work.

This finding was disagreed with study conducted by (Owoeye and Ibrahim, 2013) who stated that media and internet were the main source of knowledge for uterine malignancy, and also study carried out by (Tan *et al.*, 2010) which revealed that main source of student knowledge about uterine malignancy from mass media followed by education and posters in University campus and study cited by (Sichanh *et al.*, 2014) which reported that Health personnel represent the main source of information for studied subject before media about uterine malignancy. This may due to different culture and tradition.

Regarding student nurse attitude the present study revealed that the Majority among studied students had positive attitude toward if uterine cancer found early, it can be cured, nearly three fourth of studied students had positive attitude toward The medical team should inform woman with the cancer, Majority of studied students had positive attitude toward Women's with uterine cancer treatment would enhance her chance of living long.

Additionally, nearly three fourth among studied students had positive attitude toward uterine cancer was a preventable disease, most of studied students had positive attitude toward Support and providing the women with knowledge about the disease and treatment to help them reduce stress and cope with her condition and more than three fifth of studied students had positive attitude toward hysterectomy leads to lack of women's psychological & social adjustment. In this respect to (Yamada *et al.*, 1998) who reported that uterine cancer is often diagnosed at an early stage and is therefore considered one of the most curable gynecologic malignancies.

Regarding total attitude of studied student toward uterine malignancy issue, the present study revealed that Majority of studied students had positive attitude toward uterine malignancy. This finding was in

agreement with (*Owoeye and Ibrahim, 2013*) who reported that the Majority of the female student had positive attitude toward uterine malignancy.

These findings also agree with another study conducted by (*Bekar et al., 2013*) who stated that the Majority of the participant had positive attitude toward uterine malignancy and a study cited by (*Tan et al., 2010*) who found that all female students had positive attitude on prevention of uterine cancer. This might be due; they had strong desire more and more as a trail to increase their social and educational level.

Nurses gain their positive attitude concerning uterine malignancy for several reasons, firstly because they are deeply involved with the care of women from the beginning of her illness till complete cure from uterine malignancy. Secondly because the nurse is the only person who accompanied the patient with uterine malignancy throughout her gurney of illness till complete cure.

These processes reflect upon nurses with positive attitude concerning the management of reproductive malignancy. The successful management and treatment always deeply rooted in the mind of nurses as successful event which reflect upon their positive attitude toward this illness.

The current study revealed that there were statistically significant positive correlation between total studied student's knowledge and total studied student's attitude regarding uterine malignancy. This is because knowledge influences their attitude. This was congruent with (*Ibrahim, 2011*) who reported that there were statistically significant between participant total knowledge and total attitude. This finding supported by (*Ibrahhim, 2011*) who reported that there were a positive highly statistical significant correlation (0.001) between total knowledge and attitude scores.

This is because always knowledge correct misconception and misbelieve and enhance positive attitude regarding uterine malignancy due to advanced management and treatment for uterine malignancy.

Considering the nursing role, (*Justin, 2016*) has claimed that Nurses play a pivotal role in education. Patients and their families depend on oncology nurses to answer complex questions. Nurses explain the ways in which cancer affects the human body, and educate patients on the benefits and disadvantages of forms of treatment. Oncology nurses work as counselors and health educator and care provider to help patients cope with emotional and mental trauma. They also communicate with families, and help them cope with the challenges they face.

According to the previously mentioned study finding which pointed out our attention toward importance of more education regarding uterine malignancy of the undergraduate curriculum student nurse to enhance their knowledge and practical skills concerning women with uterine malignancy.

Also to improve their attitude to this issue to be able to counsel and educate patient with uterine malignancy which will reflect upon patient / family satisfaction as well as improve the quality of nursing care provided for patient with uterine malignancy.

## **Conclusion:**

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**The present study was concluded that:**

More than two fifth among studied students had correct knowledge while more than half among them had incorrect knowledge regarding uterine malignancy and Majority among studied students had positive attitude toward uterine malignancy.

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### Recommendations

The following recommendations were suggested from the present study finding:

The undergraduate technical institute curriculum must be revised and the issue of uterine malignancy must be integrated in the undergraduate course specs.

Further researches are needed to investigate student nurse's practical skills regarding care of women with uterine malignancy at gynecological oncology department.

Further researches are needed to investigate patient satisfaction related to student nurse care at gynecological oncology department.

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