

Effect of Premarital Counseling on Knowledge and Attitude of Female Technical Students

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Abstract

Background: Premarital counseling (PMC) is one of the health promotion activities provided in the maternal and child health services program to young couples before marriage in order to guide, educate and prepare them for the establishment of a healthy family. **Aim of the study:** to evaluate the effectiveness of pre-marital counseling on females' knowledge and attitude. **Study design:** True -experimental design was used. **Study setting:** The study was conducted at Technical Secondary Schools at Toukh city. **Study subjects:** Stratified random sample of 158 female students at 3rd academic year at Al-Amar mixed commercial school. **Tools of data collection:** Consisted of two tools: **Tool (I);** A self-administered questionnaire and **Tool (II);** Female students' attitude regarding PMC Lickert scale. **Results:** Showed that, the majority (80.4%) of the studied female students had poor level of total knowledge at pre- intervention compared to more than three quarters (75.9 %) at post intervention. Moreover, more than half (58.2%) of the studied female students had negative total attitude regarding premarital counseling pre-intervention compared to (82.9%) the majority of them had positive total attitude at post intervention. **Conclusion:** The study concluded that, premarital counseling has a positive effect on female knowledge and attitude. **Recommendation:** Providing continuously health education programs about premarital counseling at all technical schools to improve students' awareness about premarital counseling as well as incorporate such issues in high school and university education.

Keywords: Premarital counselling, knowledge, Attitude.

Introduction

Counseling is described as "a scientific process as well as a relationship between persons that permits meaningful understanding of self and environment and change in behavior or attitude resulting in development and clarification of goals and values for future counseling include individual, group, family and couple as an example of PMC" (Seidman et al.,2022). PMC is a type of counselling that focuses on the interpersonal relationships of couples and assists couple to evaluate relationship in light of impending marriage (Gholibeigi, 2023).

The importance of premarital counseling is to help partners identify issues in relationship and equipping with skills needed to solve present and future conflicts. Moreover, assist couples express individual needs, preferences and expectations regarding marriage and learn to resolve differences in ways that are mutually satisfying (Davis-Reid, 2019).

Premarital counseling intention is to help couples better understand their own motivations for getting married, which might include building own family, increasing commitment to each other and creating a future together. Premarital Counseling aimed at providing baseline assessment for couples, increasing the awareness regarding marital stage, identifying and reducing the incidence of reproductive and genetic health problems in addition to increasing couples' compliance to healthy habits and decreasing their psychological stress and anxiety (Brigoli & Sandoval, 2023).

Services of PMC include interpersonal communication, decreases conflict by addressing expectations within marriage "premarital education", medical and genetic counseling which explains the basic reproductive health issues for teaching couples about male and female reproductive facts, menstruation, ovulation, fertilization, family planning methods, and the common preventable problems for couples also their offspring through a comprehensive group of tests

especially for couples in a consanguineous marriage in order to take the necessary precautions or treatment (e.g. Rh incompatibility and Down's syndrome) (Hussain, 2023).

Target population for PMC is youth who are in the way for marriage as benefit from early appropriate interventions to manage and prevent suspected diseases because most of them get married with inadequate information on reproduction, sexuality, and family planning. Also, there is a big deficiency of knowledge related to reproductive health even between educated individuals (Alkalash et al., 2021).

Nurses are the core of counseling process so providing high quality care of PMC services regarding marriage require the nurse to be more knowledgeable, skilled and competent to be capable for providing planned, organized and effective care for couples for prevention complications of transmission genetic diseases and increase awareness about harmful consequences of these diseases also correcting mis-concept and misbelieved regarding consanguinity. In addition, nurses ensure that the couples are aware of all components and activities of PMC to apply and increase the wellbeing (Ebid et al., 2021).

Significant of study

Nowadays, PMC is considered a necessity and obligatory for all couples getting married moreover, PMC is of great importance in Egypt due to the increasing number of population and subsequently, increase marriage. The annual bulletin marriages and divorces statistics registered about 1.8 new marriages every minute and 106 per hour, in 2022. The number of marriages contracts reached 929,400 contracts in 2022, compared to 880,041 more than in 2021 an increase by 5.6 %. On the other hand, there were high prevalence of divorces as the total number of divorces in 2022 reached 269,800 in comparison to 254,777 in 2021 an increase by 5.9 %. The averages are 31 per hour and one case of divorce every 2 minutes. Central Agency for Public Mobilization and Statistics (CAMPAS, 2022).

Improving the peoples' knowledge will improve the understanding and cooperation

which is capable of decreasing the number of marriages among carriers moreover, improving knowledge and attitude of female students is very essential because they are the future mothers in order to ensure safe motherhood and the promotion and protection of their health especially from reproductive health hazards. So, the current study was conducted to evaluate the effectiveness of pre-marital counseling on females' knowledge and attitude.

Aim of the Study

This study aimed to evaluate the effectiveness of pre-marital counseling on females' knowledge and attitude.

Research Hypothesis

H1: Pre-marital counseling will enhance female students' pre-marital knowledge.

H2: female students will have positive attitude toward premarital counseling after interventions.

Operational definitions:

Technical secondary schools; refer to a type of secondary school that specializes in teaching technical and practical subjects, which prepare students for a specific trade or career. Span 3 to 5 years depending on the chosen program.

Subjects and Methods

I. Technical design.

Study design: True - experimental design was utilized in the current study.

Subjects (sampling):

Setting:—the study was conducted at Technical Secondary Schools at Toukh city.

Sample type:

Two sample types were used:

1. Multistage sample was used by the investigator for selecting one school from all seven schools by using toss technique

2. Stratified random sample was used by the investigator for selecting the study sample of female technical students from the selected school on the third academic year.

Sample size

Total number of females students at third academic year was 158 students.

Tools of data collection:

Two tools were used to achieve the aim of this study included:

Tool I: A self-administered questionnaire: (Appendix I):

Including multiple choice questions which was developed by the investigator after reviewing of recent related literature (*Al-Shafai et al., 2022 & Al-Qahtani et al., 2019*) including two parts:

Part I: Personal characteristic such as (age, place of residence, state of engagement, type of family, number of family member, parent's education and parent's occupation) & Family history such as (contiguous relationship, degree of relationship family history for hereditary diseases and type of hereditary diseases).

Part II: Female students' knowledge about PMC such as (definition of PMC, definition of hereditary disease, etc.) and one question about the source of knowledge about PMC.

Scoring system:

Each question was scored (2) for the correct and complete answer and (1) for correct and incomplete answer and (zero) for incorrect answer or don't know. while the total knowledge score was calculated as the following: Good knowledge level $70 \leq \%$ (20-28 degree), Average knowledge level $50 < 70 \%$ (14-19 degree) and Poor knowledge level $< 50 \%$ (0-13 degree).

Tool II: Female students' attitude regarding PMC Lickert scale: (Appendix II):

This tool was adapted from (*AlKhalidi et al., 2002 & Kabbash et al., 2019 & Al-Kindi et al., 2019*) and modified by the investigator to be matched the aim of the study investigating female students' attitude toward PMC.

Scoring System:

Each statement was scored as Strongly Agree (5), Agree (4), Uncertain (3), Disagree (2) and strongly disagree. While the total attitude score was calculated as the following: Positive attitude $80 - 56) \% 70 \leq \text{degree}$ & Negative attitude $< 70 \% (16-55 \text{ degree})$.

Content validity:

The developed tools were formulated and submitted to five experts in obstetrics and gynecology nursing to assess the content validity, needed modifications were done to test tool for ascertain clarity, relevance, accuracy, comprehensiveness and applicability of tools. Needed modifications were done.

Tool reliability:

The tool was measured to ensure that assessment tools produced stable and consistent result overtimes. The reliability coefficient for the study tool was calculated using the correlation coefficient Cronbach's alpha test. ($\alpha = 0.929$) for student' knowledge questionnaire, it revealed internal reliability was ($\alpha = 0.979$) for the attitude assessment tool.

Pilot study:

The pilot study was conducted on 10% of the total sample (16 female student) to evaluate the clarity and applicability of tools used for data collection as well as estimation of the time needed to fill the questionnaire.

Supportive material:

Simple illustrative booklet was designed by the investigator after reviewing of related national and international literatures such as (*Ibrahim et al., 2011 & Parhizgar et al., 2017*) and under the guidance of the supervisors including the following (introduction about PMC, definition, importance, objectives, definition of premarital screening, importance of premarital screening, PMC components, etc.), it was done in simple Arabic language and supported by figures.

II- Administrative design:

Approvals to conduct the study was obtained by submission of an official letter

issued from the Dean of faculty of Nursing / Ain-Shams University to director of the Educational Department and objectives, tools and study technique was illustrated to gain their cooperation and trust.

Ethical Consideration:

- The study approval was obtained from Scientific Research Ethical Committee of the Faculty of Nursing at Ain-Shams University to the fulfillment this study.

- The aim of the study was explained to each female student before applying the tools to gain their confidence and cooperation.

- An oral consent was obtained from each female student who participated in the study.

- The female students were free to withdraw from study at any time.

- The study has no physical, social or psychological risks on the female student.

- All tools of data collection were confidential after statistically analysis.

III-Operational design

Fieldwork:

The study was carried out into three phases include preparatory, implementing and evaluation phases.

1.Preparatory phase:

During this phase, the investigator reviewed, the advanced national and international literature related to the present study topic, then tools for data collection & illustrative counseling booklet were designed. Finally, the investigator conducted the pilot study to a certain content validity of the used tools.

2.Implementation phase:

- The investigator visited Al-Amar mixed commercial school in Toukh city

3days/week during the time of the study at morning, between and after their classes.

- At the beginning, the investigator introduced her-self to available female students and explained the purpose of the study to the participants taking their oral approval to participate in the study prior to data collection.

- Pre-marital counseling was done through using group counseling and the supported material.

- Female students were divided into small groups to allow adequate understanding, discussion and asking questions. Female students divided into 12 groups; each group contains 10-15 female students. The teaching sessions were conducted in a classroom located at the second floor and third floor of the school.

- The implementation phase was achieved through four sessions, the time of each session was ranged from 30-60 minutes.

- Each session started by greeting the students, assessing the student's motivation for learning, getting feedback about what was given through the previous session.

- Different teaching methods were used as colored illustrated booklet, videos, brochure and illustrative posters during counseling for better understanding.

- At the end of the last session, the investigator thanked the students for participation and asked for any inquiry's unclear points.

3.Evaluation phase:

This phase was utilized to evaluate the effect of pre-marital counseling on improving females' students' knowledge and attitude regarding premarital counseling.

IV-Statistical Design:

The collected data organized, tabulated and statistically analyzed using (SPSS) version 0.25. Using Descriptive statistics as (numbers, percentages, mean and standard deviation). Test of significance, (χ^2) test and paired t test are used to compare qualitative variables and correlation coefficient (r) were done for assessment of inter relationship among quantitative variables, either normally

distributed or qualitative, to test the study hypothesis. The observed differences and association were considered as follows:

- P-value > 0.05 No significant (NS).
- P-value \leq 0.05* Significant (S).
- p-value \leq 0.001** Highly Significant (HS).

Results:

Table (1): Shows that, more than half (55.7 %) of the studied female students were aged 18 years with mean age (17.68 ± 0.587) years old and less than two thirds (62.0 %) of them were single. Also, less than two thirds (62.0%) of the studied female students had nuclear family and less than two thirds (63.3%) of them their family consisted from 4-6 members.

Figure (1): Illustrates that, less than two thirds (63.3%) of the studied female students their fathers had secondary education and more than half (57.0 %) of them their mother had secondary education.

Figure (2): Clarifies that, most (93.6%) of the studied female students their fathers were work and more than half (57.0 %) of them their mother housewife.

Figure (3): Shows that, the majority (80.4%) of the studied female students had poor level of total knowledge at pre- intervention compared to, more than three quarters (75.9 %) of them had good level of total knowledge at post intervention. Moreover, there was highly statistically significant difference for the studied female students' total knowledge regarding PMC pre and post intervention ($P, \leq 0.001$).

Figure (4): Clarifies that, about one third (32.4% & 30.9 %) of the studied female

students received their knowledge from mass media and internet respectively, while more than two fifths (22.1 %) of them received their knowledge from their friends.

Figure (5): Shows that, more than half (58.2%) of the studied female students had negative total attitude regarding PMC pre-intervention compared to, the majority (82.9 %) of them had positive total attitude at post intervention. Moreover, there was highly statistically significant difference for the studied female students' total attitude regarding premarital counseling pre and post intervention ($P, \leq 0.001$).

Table (2): Reveals that, there were highly a statistically significant relation between studied female students' total knowledge and their age, family type and number of family member pre and post intervention at ($P= \leq 0.001$) and there was highly a statistically significant relation between studied female students' total knowledge and their state of engagement post intervention at ($P= \leq 0.001$).

Table (3): Illustrates that, there were highly a statistically significant relation between total studied female students' total attitude and their state of engagement, family type and number of family member pre and post intervention at ($P= \leq 0.001$) and there was highly a statistically significant relation between total studied female students' total attitude and their age post intervention at ($P= \leq 0.001$).

Table (4): Clarifies that, there were highly statistical positive correlation between total level of the studied female students' knowledge and total attitude at premarital counseling pre and post intervention at ($P= \leq 0.001$).

Table (1): Distribution of the studied female students according to their general characteristic (n=158).

General characteristic	No.	%
Age/ years		
17	60	38.0
18	88	55.7
19	10	6.3
Mean ±SD	17.68±0.587	
State of engagement		
Engaged	60	38.0
Single	98	62.0
Family type		
Nuclear	98	62.0
Extended	60	38.0
Number of family member		
2-3	28	17.7
4-6	100	63.3
>6	30	19.0

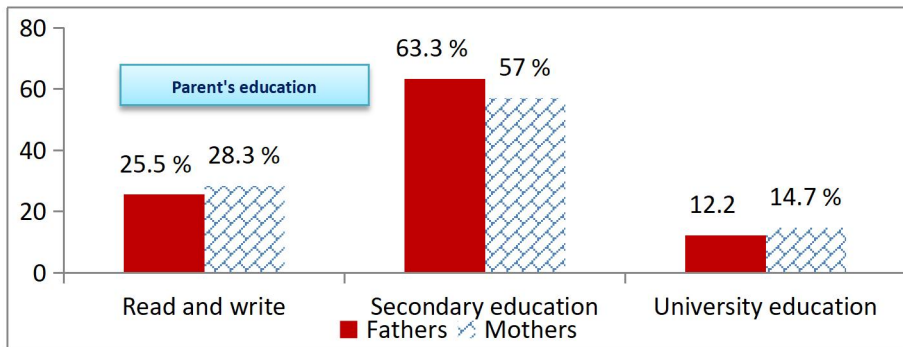


Figure (1): Distribution of the studied female students regarding their parent's education (n=158).

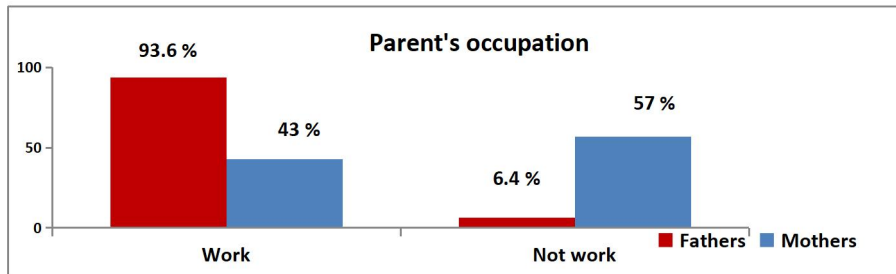


Figure (2): Distribution of the studied female students regarding their parent's occupation (n=158).

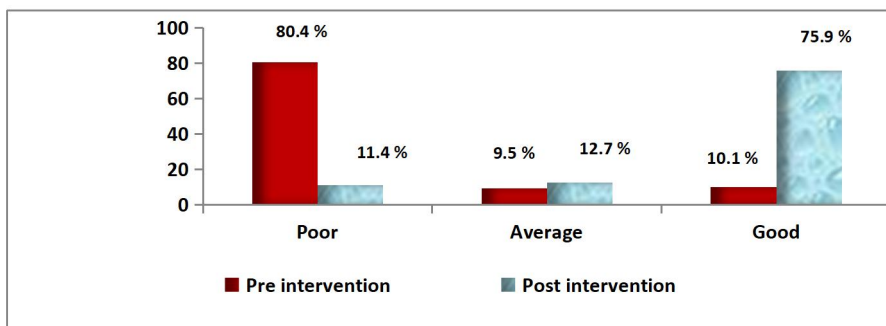


Figure (3): Distribution of the studied female students regarding their total level of knowledge regarding premarital counseling pre and post intervention (n=158).

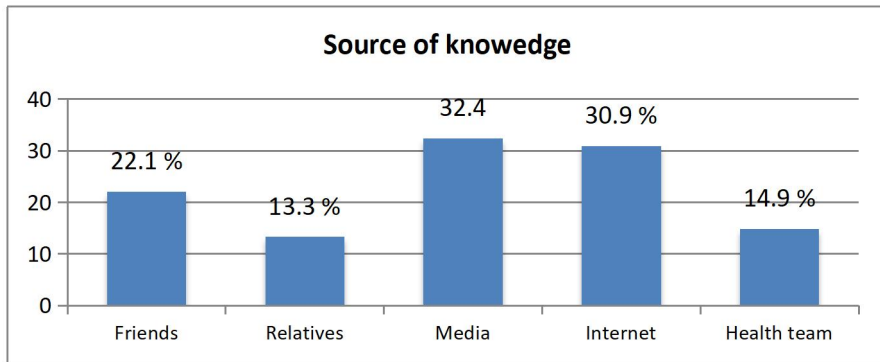


Figure (4): Distribution of the studied female students regarding their source of knowledge (n=158).

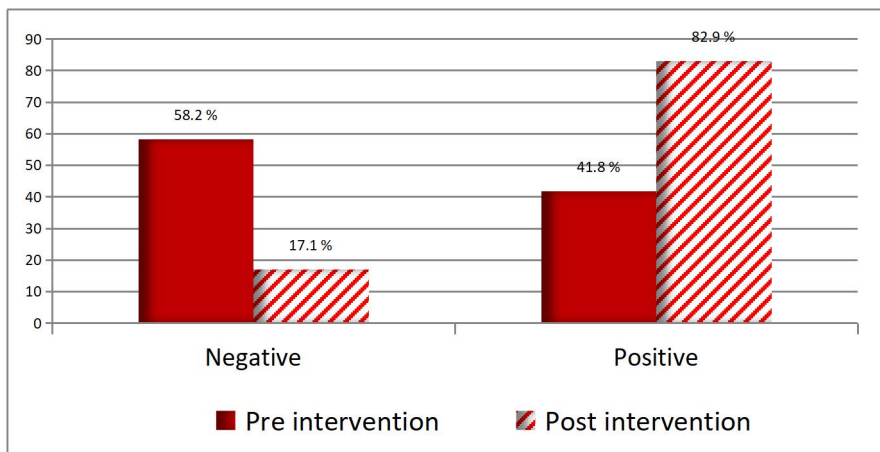


Figure (5): Percentage distribution of the studied female students according to their total level of attitude regarding premarital counseling pre and post intervention (n=158).

χ^2 = Relation between pre& post intervention (23.362), (p=**0.000)

Table (2): Statistically relation between total knowledge and general characteristics among the studied female students pre and post intervention (n=158).

Items	Pre						X ²	p-value	Post						X ²	p-value
	Poor (n=127)		Average (n=15)		Good (n=16)				Poor (n=18)		Average (n=20)		Good (n=120)			
	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%		
Age/ years																
17	53	41.7	7	46.7	0	0.0	15.582	0.000**	0	0.0	2	10.0	58	48.3	51.507	0.000**
18	64	50.4	8	53.3	16	100.0			18	100.0	11	55.0	59	49.2		
19	10	7.9	0	0.0	0	0.0			0	0.0	7	35.0	3	2.5		
State of engagement																
Engaged	42	33.1	8	53.3	10	62.5	6.885	0.032*	1	5.6	1	5.0	58	48.3	22.731	0.000**
Not engaged	85	66.9	7	46.7	6	37.5			17	94.4	19	95.0	62	51.7		
Family type																
Nuclear	95	74.8	3	20.0	0	0.0	46.184	0.000**	18	100.0	20	100.0	60	50.0	30.633	0.000**
Extended	32	25.2	12	80.0	16	100.0			0	0.0	0	0.0	60	50.0		
Number of family member																
2-3	28	22.0	0	0.0	0	0.0	17.659	0.001**	18	100.0	1	5.0	9	7.5	98.965	0.000**
4-6	79	62.2	13	86.7	8	50.0			0	0.0	18	90.0	82	68.3		
>6	20	15.7	2	13.3	8	50.0			0	0.0	1	5.0	29	24.2		

** Highly statistically significance $p \leq 0.001$
 * statistically significance $p \leq 0.05$

* statistically

Table (3): Statistically relation between total attitude and general characteristics among the studied female students pre and post intervention (n=158).

Items	Pre				X ²	p-value	Post				X ²	p-value
	Negative (n=92)		Positive (n=66)				Negative (n=27)		Positive (n=131)			
	No.	%	No.	%			No.	%	No.	%		
Age/ years												
17	32	34.8	28	42.4	7.837	0.020*	0	0.0	60	45.8	20.386	0.000**
18	50	54.3	38	57.6			25	92.6	63	48.1		
19	10	10.9	0	0.0			2	7.4	8	6.1		
State of engagement												
Engaged	24	26.1	36	54.5	13.214	0.000**	1	3.7	59	45.0	16.238	0.000**
Not engaged	68	73.9	30	45.5			26	96.3	72	55.0		
Family type												
Nuclear	89	96.7	9	13.6	112.679	0.000**	27	100.0	71	54.2	19.938	0.000**
Extended	3	3.3	57	86.4			0	0.0	60	45.8		
Number of family member												
2-3	28	30.4	0	0.0	29.288	0.000**	18	66.7	10	7.3	54.823	0.000**
4-6	44	47.8	56	84.8			9	33.3	91	69.5		
>6	20	21.7	10	15.2			0	0.0	30	22.9		

** Highly statistically significance $p \leq 0.001$.* Statistically significance $p \leq 0.05$.**Table (4):** Correlation between total knowledge and total attitude among the studied female students pre and post intervention.

Scale	Total attitude		
	R	pre-program	post-program
Total knowledge	0.507	0.507	0.857
	p-value	0.000**	0.000**

** Highly statistically significance $p \leq 0.001$ **Discussion:**

Premarital counseling is a worldwide activity aiming to early diagnose unrecognized hereditary and genetic disease that may affect the health of future generations, and also, detect and treat the transmission of infectious diseases to couples which may affect the quality of marriage (Adeyemo et al., 2022).

As regard to general characteristics of studied females' students, the results of the current study revealed that, more than half of the studied female students were aged 18 years with mean age 17.68 ± 0.587 years old and nearly two thirds of them were single. This finding was in harmony with Sedek et al., (2022) who revealed that about one half of participants were in the age group 18 years with mean age 17.64 ± 1.79 and almost, half of them were single. On the other hands, these results were disagreed with Zaidi, & AlJohani, (2019) who confirmed that the mean age of their participants was mean \pm SD age of 33.6 ± 6.0 years and most of them were engaged.

Concerning parents' education, the results of the current study illustrated that, less than two thirds of the studied female students' fathers and more than half of them their mother had secondary education. This finding was congruent with Kabbash et al., (2019) who mentioned that more than one quarter their mother had secondary education. Meanwhile, findings were incompatible with Mohamed et al., (2015) who cleared that more than two fifth of student's fathers and mothers had secondary level of education.

Concerning parent's occupation, the results of the current study revealed that that, most of the studied female students' fathers were working whenever, more than half of their mother weren't working. This result was consistent with those of Kabbash et al., (2019) who illustrated that most of studied students' fathers were employee and workers whenever, about half of their mothers were housewives. Also, was inconsistent with current study findings, a study by Said & Gomaa, (2022) who noticed that more than half of studied

students' fathers and mothers were working. This consistency between might be due to the study being conducted in the same sample characteristic in countries where people have the same culture and customs.

Concerning to total level of students' knowledge, the current study clarified that the majority of the studied female students had poor level of total knowledge at pre- intervention compared to, more than three quarters of them had good level of total knowledge at post intervention This due to the positive effect to the premarital counseling in raising students' awareness after the implementation.

This result was parallel to the study of **Sedek et al., (2022)** who showed that the majority of studied students had poor total level of knowledge, before the implementation of educational program which decreased to the minority after implementation of education program.

Theses study results were in accordance with **Parhizgar et al., (2017)** who indicated that there was highly statistically significant difference in knowledge regarding pre-marital counseling between before and after the implementation of educational program.

In connection to the source of students' information related to pre-marriage counseling, the consequences of the current findings clarified that, about one third of the studied female students received their knowledge from media & internet respectively, while more than two fifths of them received their knowledge from their friends. This could be interpreted that T.V and internet where available in every house beside that, the students spent long time for watching it and might be related to the importance of premarital counseling.

The previous study finding was corresponded to a study done by **Kabbash et al., (2019)** emphasized that, about one third of participant's stated that the main sources of information were TV and radio followed by more than one quarter that sources of information were internet while one fifth of them received their information from relatives.

On the contrary, this finding was inconsistent with **Said & Goma, (2022)** who

revealed that more than half of their female students' participants had their sources of information regarding premarital care from curriculum, relatives & friends, and the minority of them obtained their information from TV, radio and internet respectively.

Concerning studied female students' total attitude regarding premarital counseling pre and post intervention. The results of the current study showed that, more than half of the studied female students had negative total attitude regarding premarital counseling pre-intervention compared to, the majority of them had positive total attitude at post intervention.

These study findings were agreed with **Ebid et al., (2021)** who reported that, less than two thirds of studied sample had a positive attitude toward consanguineous marriage and pre-marital counseling pre counseling compared to the majority of them post counseling. On accordance with the study findings by **Osei-Tutu et al., (2020)** who indicated that the majority of the study sample had negative attitude before the implementation of education program and there was improvement after the program.

On investigating relation between students' total knowledge and general characteristics among the studied female students pre and post intervention, the current study revealed that, there were highly a statistically significant relation between studied female students' total knowledge and their age, pre and post intervention. This could be interpreted that as students age increase; their experience, knowledge and information regarding premarital counseling improved.

The results of present study were in the same line with **Mohamed et al., (2015)** at El Minia university who showed that, there were highly statistically significant relation between student total knowledge regarding pre-marital counseling and their age.

The results of the current study also showed that, there was highly a statistically significant relation between studied female students' total knowledge and their state of engagement post intervention, while, there was a statistically significant relation between total studied female students' total knowledge and

their state of engagement at premarital counseling intervention.

In concurrence with **Al-Shroby et al., (2021)** who revealed that outcomes were detected an association between the level of PMSGC knowledge and marital status, with engaged participants having a higher knowledge score than those not engaged. In addition, the result of the current study at same line with **Jamal et al., (2019)** who indicated that there was insignificant difference between students' total knowledge and marital status.

Regarding the relation, between students' age and their total attitude toward pre-marriage counseling, the results of the current study illustrated that, there were statistically significant relation between studied female students' total attitude and their age. While, there were highly statistically significant relation between studied female students' total attitude and their state of engagement.

The previous study findings supported by **Ali, (2020)** who showed that, there were highly significant relation between students' total attitude and their age and state of engagement. In addition, the study was partially agreed with **Ali et al., (2018)** who approved that there was significant relation between students' total attitude and their age. Conversely, the study was disagreed with **Abd El-Ghany et al., (2010)** who showed that that age not influence on level of knowledge or attitude toward premarital counseling and care among Hadhramout University students.

Pertaining to correlation between total knowledge and total attitude among the studied female students pre and post intervention, the results of the current study declared that, there were highly statistical positive correlation between total level of the studied female students' knowledge and total attitude at premarital counseling pre and post intervention. These previous outcomes were matching with a study done by **Hamed et al., (2022)** who represented that there was a positive correlation among the total knowledge score, the total attitude score and the total perception score of studied future couples regarding premarital screening. In addition, these findings were in agreement with **Al-Shafai, et al. (2022)** who

reported that there was a positive correlation among the total knowledge and the total attitude regarding premarital counselling

On the other hand, the previous study result was against **Odelola et al., (2013)** who studied "Attitude towards Pre-Marital Genetic Screening among Students of Osun State Polytechnics in Nigeria" who mentioned that, there was no statistically significant difference between the knowledge & attitude of the students of Osun State Polytechnic, towards premarital genetic screening.

Conclusion

Based on the result of present study, the following can be concluded:

The majority of the studied female students had poor level of knowledge regarding premarital counseling at pre- intervention compared to more than three quarters of them had good level knowledge at post intervention with highly statistically significant difference for the studied female students' total knowledge regarding premarital counseling pre and post intervention. This supported the first hypothesis.

In addition, more than half of the studied female students had negative attitude regarding premarital counseling pre-intervention compared to the majority of them had positive total attitude at post intervention with a highly statistically significant difference. This supported the second hypothesis.

Recommendations:

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

1. Providing continuously health education programs about premarital counseling in every technical school to improve their awareness.
2. Incorporate premarital counseling nursing curriculum in high school and university education.



Future studies

3. Replicate the study in other schools with different sample characteristics to increase the ability to generalize the findings.

4.Needed to Conduct a comparative study between the children of the couples who receive premarital counseling and the children of the couples not received premarital counseling.

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