Awareness of Female Nursing Students of the Risk Factor Regarding Early Marriage

Asmaa Samy Moawad*[1], Amany Mohamed Saad[2], Sahar Mohmoud Saed Ahmed[2]
[1]Department of Community Health Nursing, Ibshway Central Hospital, Al- Fayoum, Egypt
[2]Department of Community Health Nursing, Faculty of Nursing, Helwan University, Egypt
*Corresponding author: Asmaa Samy Moawad, **Mobile:** (+20) 01141307875, **E-Mail:** asmaasamy103@gmail.com

ABSTRACT
Background: Early marriage has long-lasting effects on a person's social, emotional, and physical health. Nurses can raise female awareness of the risks of early pregnancy and marriage.
Objective: The study aimed to assess awareness of female nursing students of the risk factors regarding early marriage.
Subjects and methods: Design: A descriptive research design was applied in this study.
Sample: A purposive sample included 121 female nursing students.
Setting: Technical Health Nursing Institute, Fayoum Branch, which affiliated to Beni-Suef Governorate.
Tools: Interview questionnaire consisted of four parts: sociodemographic characteristics about the students and parents, female student's knowledge, their reported practices about early marriage, and assessing their own risk factors for problems arising from early marriage.
Results: The study finding indicated that 74.4% of female nursing students were 18 years when they married. 58.7% of female nursing students had unsatisfactory level of total knowledge about early marriage and reproductive health. 65.3% of them had inadequate reported practices regarding early marriage. 52.1% of them had high level of risk factors for problems arising from early marriage.
Conclusion: More than half of female nursing students had unsatisfactory level of total knowledge about early marriage, inadequate practices regarding early marriage and high level of risk factors for problems arising from early marriage. There was highly statistically significant relation between female nursing students' knowledge, reported practice about early marriage and their sociodemographic characteristics.
Recommendation: Applying health education programs among students in different educational settings focusing on early marriage health consequences.
Keyword: Early Marriage, Female Nursing Student, Risk Factor.

INTRODUCTION

Early marriage is the union of two people when one or both of the participants are under the age of 18. In 2020, there were more than 21% of female marriages worldwide that take place before the age of 18. Early marriage can have a negative impact on girls' psychological and physical health, therefore choosing the right marriage time is crucial to achieving goals in terms of fertility health, nutrition for mothers and children, gender equity, livelihoods, and the advancement of education and employment. An evidence-based set of suggested treatments for teenage girls addresses reducing early marriage and postponing weddings or marrying at an appropriate age [1].

The reasons for early marriage are diverse and vary, sometimes even occurring within the same nation and across cultures and regions. The factors behind early marriage are frequently ingrained customs and poverty. Due to their inability to support them, impoverished families may find that the only way to survive is to marry off their daughters. Females are from the most underdeveloped countries in the globe. One of the main reasons why women get married young is poverty, but it also has long-term effects. Females who are married are disempowered because they are denied the ability to develop, learn, and realise all of their potential [2].

The consequences of early marriage are more widespread and don't just affect women. Early marriage has long-lasting effects on a person's social, emotional, and physical health. These effects can last well into adulthood and have unfavourable effects like the loss of educational and employment opportunities as well as distress from psychological issues like depression, anxiety, social isolation, and an increase in domestic violence. The effects of female marriage are detrimental to both families and society. This can worsen poverty and have negative effects on a nation's health and education systems [3].

Early marriage and sexual activity increase the likelihood of unintended pregnancies, which in turn increases the number of abortions, hepatitis infection and other sexually transmitted diseases, immature physiology, knowledge loss, low self-esteem, and lack of awareness. The relationship between the two people may become worse as a result of physiological aggressiveness from one of the partners, which undoubtedly has an impact on the girl first. Obstetric labour, obstetric fistula, and other difficulties are sometimes caused by health issues associated to pregnancy. If the babies live, they could have low birth weight, and the mother herself might have associated anemia due to a poorly formed body [4].

Early marriages are primarily motivated by three factors: poverty, the urge to strengthen social relationships, and the conviction that marriage provides protection. Most early marriages occur in impoverished

communities. Economic incentives are put in front of parents to assure their daughters' financial stability and to lessen the financial burden girls make on the family. Early marriage is primarily a result of desperate financial circumstances. Females are more expensive to educate, clothe, and feed, and eventually they leave the home. A dowry is given to the bride's family upon marriage [5].

Increase public awareness of female nursing students who continue their education using a variety of means, such as providing girls with school materials or uniforms and offering financial incentives to parents who keep their daughters in school and single. Young women in rural areas should have access to livelihood options to raise their status within their families and relieve their parents of the responsibility of providing for daughters. Early marriage-related sociocultural norms need to be addressed through public discourse, the media, educational institutions, and religious organisations [6].

Community health nurses may enhance health prevention and promotion via their work in health education. Nurse educators must instruct teenagers on how to maintain their health. Nurses can raise female students' awareness of the risks of early pregnancy and marriage, as well as their knowledge and conviction that teenage females should be protected from these risks. The addition of reproductive health issues in the school curriculum emphasising on early marriage health repercussions and preventative strategies should be useful in raising knowledge about early marriage and pregnancy so that females may avoid getting into that situation [7].

SIGNIFICANCE OF THE STUDY
Any connection between a girl under the age of 18—whether it is legal or informal—is considered an early marriage. In 2020, 12 million girls under the age of 18 was married, making about 21% of all alive females. This equates to around 23 girls getting married as minors every minute. More child brides live in South Asia than any other worldwide area. In India and Bangladesh, marriages typically occur relatively young; in 2017, 7% of Indian women and 22% of Bangladeshi women were married by the age of 15. Development in South Asia is essential to achieving the sustainable development objective of eradicating harmful practices, such as early and forced marriage, by 2030 [7].

In the world, 20% of girls between the ages of 20 and 24 marry or establish a legal relationship before turning 18. Women who marry young face a number of negative consequences. They include inadequate nutrition, lack of access to healthcare and contraception, early childbearing, and greater rates of illness and death during pregnancy and childbirth [8].

The total number of marriage contracts in Egypt increased to 928,800 contracts in 2019 from 887,300 contracts in 2018, an increase of 4.6 percent, while the average number of divorce certificates increased to 225,900 in 2019 from 211,500 certificates in 2018, an increase of 6.8 % [9].

AIM OF THE STUDY
The aim of the present study is to assess awareness of female nursing students of the risk factors regarding early marriage through: (1) Assessing female nursing student knowledge regarding early marriage and reproductive health. (2) Appraising female nursing students regarding risk factors for problems arising from early marriage. (3) Determining female nursing students reported practices regarding early marriage.

RESEARCH QUESTIONS
1- What are female nursing student's knowledge and reported practices regarding early marriage?
2- What are the risk factors for problems arising from early marriage for female nursing students?
3- Is there relation between female nursing student's sociodemographic characteristics and their knowledge?
4- Is there relation between female nursing student's sociodemographic characteristics and their reported practices regarding early marriage?

SUBJECTS AND METHODS

I-Technical Item:
Research design: A descriptive research design was used to conduct this study.
Setting: The study was carried out at Technical Health Nursing Institute, Fayoum Branch, which affiliated to Beni-Suef, Egypt.

Sampling:
Type of the sample:
A purposive sample included 121 female nursing students. They were selected according to:
Inclusion criteria:
- Married female nursing student.
- In the first year of Technical Health Nursing Institute.
- Willingness to take part in the research.

Exclusion criteria:
-Above 18 years old when married.

Sample size:

The sample size was estimated by increasing the test's power to an 80% to 95% confidence level with a 5% acceptable margin of error.

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

Nxp (1-p)	=(177*(0.5*(1-0.5)))/
N-1	=(177-1)*
d^2/z^2	=0.0025 / 3.8416+
p(1-p)	=0.5*(1-0.5)
N	=177

$$n = \frac{177 \times 0.5 \times (1-0.5)}{\left[(177-1) \times \left(\frac{0.05^2}{1.96^2}\right)\right] + 0.5 \times (1-0.5)} = 121{,}38$$

$$\cong 121$$

N= Community size =177

z= Class standard corresponding to the level of significance equal to 0.95 and 1.96.

d= Error rate is equal to 0.05.

p= Ratio provides a neutral property = 0.50 [10].

Based on the equation the actual size of sample were 121 female students through academic year (2021-2022).

Tools for data collection:

An interview questionnaire was designed by the investigator in Arabic language after reviewing of related literature. It consisted of 4 parts as follows:

Part 1: Sociodemographic characteristics:

It was contained 2 sub-items as:

Sociodemographic characteristics of female nursing students, including age, ranking among siblings, employment status, place of residence, and length of marriage, as well as sociodemographic characteristics of parents, including family type, mother's educational attainment, occupation, father's educational attainment, occupation, monthly income, and number of family members.

Part 2: Assessing the knowledge of the female nursing students:

It contained 3 sub-items: (a) The female student's knowledge about female reproductive system such as meaning of reproductive system, function of female reproductive system and external reproductive system of the female components…etc. (b) Female student's knowledge about reproductive health such as meaning of reproductive health and importance of reproductive health..…etc. (c) Students' knowledge about early marriage such as meaning of early marriage and appropriate age for marriage from the point of view of the law……etc.

Scoring system for knowledge items:

A scoring system was followed to assess female nursing students' knowledge regarding early marriage and reproductive health. It contained 24 questions, the total scores were 24 grades, the correct answer was scored one point and the incorrect answer was scored zero. The female nursing students' knowledge was checked with a model key answer. The total scores were summed and converted into a percent score. It was classified into 2 categories:

- **Satisfactory** knowledge if score ≥ 60% (15-24 grades).
- **Unsatisfactory** knowledge if score from <60% (0-14 grades).

Part 3: The reported practices of female nursing student about early marriage: It contained 6 sub-items: How to deal with vaginal infections involved 6 items, how does the girl deal with the first pregnancy involved 7 items, how to deal with an abortion involved 7 items, how to deal with the stress of married life involved 5 items, how to deal with psychological pressure involved 8 items and how to deal with family problems involved 6 items.

Scoring system for reported practice:

A scoring system was followed to assess female nursing students reported practices towards early marriage. The total score of female nursing students reported practices were 39 grades each item was evaluated as "Done" taken one score and "not done" taken zero score. Total scores summed up and were converted into a percentage score. It was classified into 2 categories:

- **Adequate** practices if score ≥ 60% (24-39 grades).
- **Inadequate** practices if score <60% (0-23grades).

Part 4: Assessment of female nursing students about their own risk factors for problems arising from early marriage: It contained 3 sub-items as:

Risk factors for physical problems involved 8 closed-end questions, risk factors for psychological problems involved 10 closed-end questions and risk factors for social problems involved 10 closed-end questions.

Scoring system for risk factor for problems of early marriage:

A scoring system was followed to assess risk factors for problems arising from early marriage for female nursing students. The total score of risk factors were 28 grades; each item was evaluated as "Yes" taken one score and "No" taken zero score. Total scores summed up and were converted into a percentage score. It was classified into 3 categories:

- **High** risk factors if score ≥ 75% (21-28 grades).

- **Moderate** risk factors if score from 50% -<75% (14-20 grades).
- **Low** risk factors if score <50% (0-13 grades).

Validity of tools:
Three experts from the community health nursing department at Helwan University's Faculty of Nursing evaluated the tool's validity by looking at its clarity, relevance, comprehensiveness, comprehension, and application. They review the content coverage, wording, length, format, and overall appearance. No modifications were made by experts but recommendations, including rephrasing some sentences and rearrangement of some sentence.

Reliability of the tools:
To assess reliability, the study tools interview questionnaires were tested by pilot subjects for calculating Cronbach's Alpha, which was 0.815 for female nursing students' knowledge regarding early marriage and reproductive health, 0.809 for female nursing students reported practices towards early marriage and 0.836 for risk factors for problems arising from early marriage for female nursing students.

Ethical consideration:
The Faculty of Nursing at Helwan University's Scientific Research Ethics Committee granted official approval for the intended study to be carried out. Subjects were fully told about the study and their role before signing the informed consent form, and they were informed that they had the option to decline participation.

Participation in the study was optional. The study's objective and nature had to be disclosed, participants had the option to withdraw at any time, and the material had to be kept secret so that no one else could access it without the participants' consent. Respect was shown for morals, values, culture, and beliefs. This work has been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for studies involving humans.

II- Operational Item:
Preparatory phase:
The development of the methods for data collecting involved evaluating previous, present, national, and worldwide relevant literature as well as theoretical understanding of many study-related components utilising books, papers, the internet, journals, and magazines.

Pilot study:
The questionnaire was pre-tested by 10% (12) female nursing students before the actual work began to test the clarity of the tools and to estimate the time required to fill the questionnaire after obtaining permission from the manager of Technical Health Nursing Institute at

Fayoum. No modifications were done, so the female nursing students of the pilot study were included in the studied sample.

Field work:
1- A formal letter from the director of the Technical Health Nursing Institute in Fayoum and the dean of the Nursing Department at Helwan University outlining the purpose of the study and requesting approval after building a rapport were provided. The researcher conducted individual interviews with each student to explain the goals of the study.
2- Information was gathered over the course of three months—from the start of the academic year (2021–2022) on Tuesday, Wednesday, and Thursday—from 9 am to 1 pm. From the beginning of January to the end of March 2022, the real fieldwork for data gathering was done.
3- 3- It took 30 minutes to complete the questionnaire. Students received assurances that the data would be captured in a private manner and utilised just for the study.
4-

III- Administrative Item:
The director of the Technical Health Nursing Institute in Fayoum and the dean of Helwan University's Nursing Faculty both gave their approval for this study to go forward. This approval included authorization to gather the required data as well as an explanation of the aim and scope of the study.

IV- Statistical Item:
The Statistical Package for the Social Sciences (SPSS) version 25 and Microsoft Excel were used to conduct the statistical analysis of the data. For categorical data, frequencies and percentages were used, while for quantitative data, the arithmetic mean and standard deviation (SD) were used. Data were presented using descriptive statistics. The chi square test (X^2) and Pearson correlation test (R-test) were used to determine the connection between the research variables. P value less than 0.05 was regarded as significant.

RESULTS
Table (1) shows that, 71.1% of female nursing students their age was 19 years, the mean ± SD of age is 18.86 ± 0.79 years. As regard to ranking between sibling, 53.7% of them were the second child.

Also, 86.8% of female nursing students weren't working and 76.9% of female nursing students were residing in rural areas. Moreover, 74.4% of them had married duration between 1-<2 years. As regard to age of husband, in 64.4% of them it ranged between 20-<25 years. Also, 66.1% of them were employees in the private sector.

Table (1): Frequency Distribution of Female Nursing Students According to Their Sociodemographic Characteristics (n=121)

Sociodemographic characteristics of female nursing students	No.	%
Age (year)		
18	26	21.5
19	**86**	**71.1**
20	9	7.4
Mean ± SD	**18.86 ± 0.79**	
Ranking between sibling		
First	36	29.8
Second	**65**	**53.7**
Third	20	16.5
Working status		
Working	16	13.2
Not working	**105**	**86.8**
Residence		
Urban	28	23.1
Rural	**93**	**76.9**
Marriage duration		
< 1 year	20	16.5
1-<2 years	**90**	**74.4**
≥ 2 years	11	9.1
Mean ±SD	**1.43 ± 0.51**	
Age of husband		
< 20	14	11.6
20-<25	**78**	**64.4**
25-<30	22	18.2
≥ 30	7	5.8
Mean ±SD	**24.7 ± 3.10**	
Husband's occupation		
Government employee	20	16.5
Private sector employee	**80**	**66.1**
Farmer	10	8.3
Free business	11	9.1

Table (2): Frequency Distribution of Parents' Sociodemographic Characteristics (n=121)

Sociodemographic characteristics for parents	No.	%
Family type		
Nuclear family	15	12.4
Extended family	**106**	**87.6**
Mother's educational level		
No read and write	24	19.8
Basic education	**66**	**54.6**
Secondary	22	18.2
Diploma	9	7.4
Mother's occupation		
Works	20	16.5
House wife	**101**	**83.5**
Father's educational level		
No read and write	18	14.9
Basic education	28	23.1
Diploma	**72**	**59.5**
University or more	3	2.5
Father's occupation		
Government employee	**62**	**51.2**
Private sector employee	42	34.7
Pension	17	14.1
Monthly income		
Enough	48	39.7
Not enough	**73**	**60.3**
Number of family members		
3-5	50	41.3
6-7	**62**	**51.2**
8-9	9	7.5
Number of rooms in the house		
Two rooms	35	28.9
Three rooms	**70**	**57.9**
Four rooms	16	13.2
Crowding index		
< 1	18	14.9
1-2	48	39.7
>2	**55**	**45.4**

Table (2) displays that, 87.6% of female nursing students had extended family. Also, 54.6% of their mothers had a basic education and 83.5% of them were house wife. Moreover, 59.5% of their fathers have diploma and 51.2% of them were government employees. Furthermore, 60.3% of them hadn't enough income. Additionally, (51.2% and 57.9%, respectively) of them had 6-7 family members and 3 rooms in the house. Regarding to crowding index, 45.4% of them had >2 members in the room.

Figure (1) shows that, 58.7% of female nursing students had unsatisfactory level of total knowledge about early marriage and reproductive health.
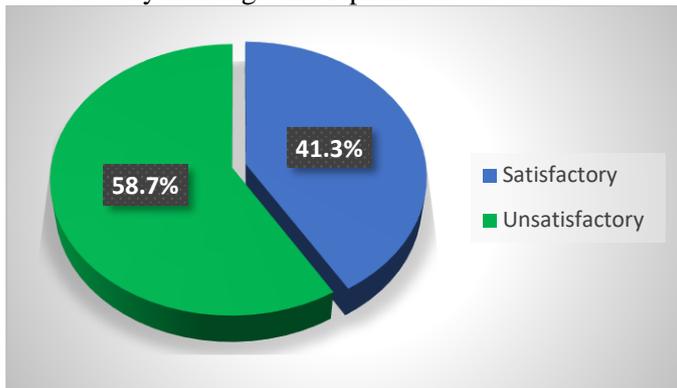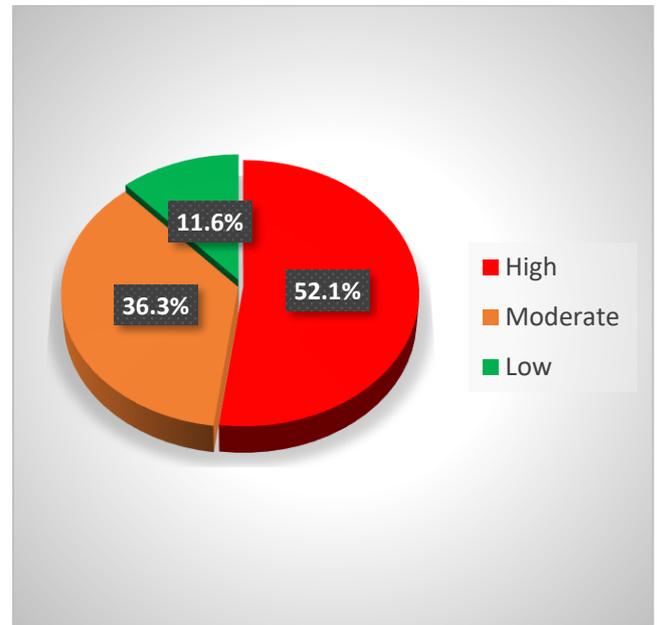

Figure (1): Percentage Distribution of Female Nursing Students According to Their Total Knowledge about Early Marriage and Reproductive Health (n=121)

Figure (2) shows that, 65.3% of female nursing students had inadequate reported practices regarding early marriage.
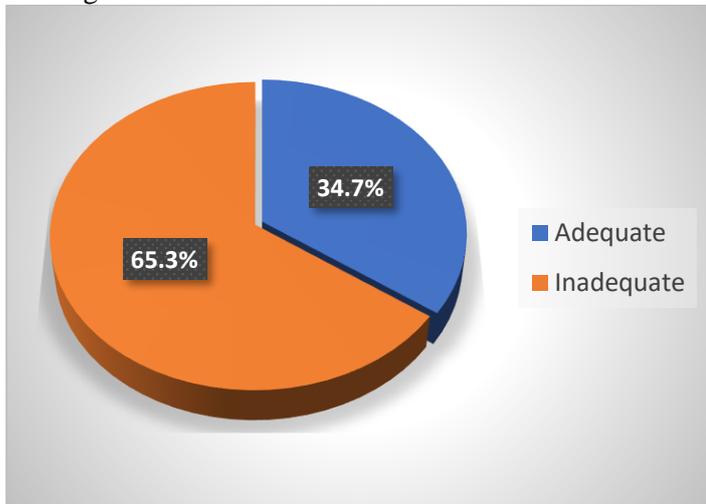
Figure (2): Percentage Distribution of Female Nursing Students According to Their Total Reported Practice Regarding Early Marriage (n= 121)

Figure (3) shows that, 52.1% of female nursing students had high level of risk factors for problems arising from early marriage.

Figure (3): Percentage Distribution of Female Nursing Students According to Their Total Risk Factors for Problems Arising from Early Marriage (n=121)

Table (3) reveals that, there was highly statistically significant relation between female nursing students' knowledge about early marriage and their sociodemographic characteristics as, mother's occupation, father's educational level, monthly income, their age, working status, marriage duration, age of husband, and mother's educational level.

Table (3): Relation between Total Knowledge and Sociodemographic Characteristics of Female Nursing Students and Their Parents (n=121)

Socio-demographic characteristics		Total knowledge about early marriage				X^2	P-Value
		Satisfactory (n=50)		Unsatisfactory (n=71)			
		No.	%	No.	%		
Age (year)	18	6	12	20	28.2	11.01	0.012*
	19	35	70	51	71.8		
	20	9	18	0	0.0		
Ranking between sibling	First	16	32	20	28.2	2.997	0.371
	Second	25	50	40	56.3		
	Third	9	18	11	15.5		
Working status	Working.	16	32	0	0.0	12.11	0.010*
	Not working	34	68	71	100		
Residence	Urban	18	36	10	14.1	3.965	0.097
	Rural	32	64	61	85.9		
Marriage duration	< 1 year	7	14	13	18.3	10.66	0.025*
	1-<2 years	32	64	58	81.7		
	≥ 2 years	11	22	0	0.0		
Age of husband	< 20 years	0	0.0	14	19.7	11.81	0.021*
	20-<25 years	31	62	47	66.2		
	25-<30 years	12	24	10	14.1		
	≥ 30 years	7	14	0	0.0		
Husband's occupation	Government employee	10	20	10	14.1	4.662	0.231
	Private sector employee	30	60	50	70.4		
	Farmer	5	10	5	7		
	Free business	5	10	6	8.5		
Mother's educational level	No read and write	0	0.0	24	33.8	10.21	0.015*
	Basic education	19	38	47	66.2		
	Secondary	22	44	0	0.0		
	Diploma	9	18	0	0.0		
Mother's occupation	Working	20	40	0	0.0	15.74	0.000**
	House wife	30	60	71	100		
Father's educational level	No read and write	0	0.0	18	25.4	16.05	0.000**
	Basic education	4	8	24	33.8		
	Diploma	43	86	29	40.8		
	University or more	3	6	0	0.0		
Father's occupation	Government employee	11	22	51	71.8	5.693	0.075
	Private sector employee	30	60	12	16.9		
	Pension	9	18	8	11.3		
Monthly income	Enough	42	84	6	8.5	14.33	0.001**
	Not enough	8	16	65	91.5		

**highly statistically significant at p < 0.01

 Table (4) reveals that, there were highly statistically significant relation between female nursing students' knowledge about early marriage and their sociodemographic characteristics as, mother's occupation, father's educational level, and monthly income, their age, working status, marriage duration, age of husband and mother's educational level.

Table (4): Relation between Total Reported Practice and Sociodemographic Characteristics of Female Nursing Students and Their Parents (n=121)

Socio-demographic characteristics		Total reported practice regarding early marriage				X2	P-Value
		Adequate (n=42)		Inadequate (n=79)			
		No.	%	No.	%		
Age (year)	18	0	0.0	26	32.9	11.01	0.012*
	19	33	78.6	53	67.1		
	20	9	21.4	0	0.0		
Ranking between sibling	First	13	31	23	29.1	4.010	0.139
	Second	22	52.3	43	54.4		
	Third	7	16.7	13	16.5		
Working status	Working.	16	38.1	0	0.0	12.05	0.009**
	Not working	26	61.9	79	100		
Residence	Urban	15	35.7	13	16.5	3.008	0.103
	Rural	27	64.3	66	83.5		
Marriage duration	< 1 year	0	0.0	20	25.3	11.31	0.011*
	1-<2 years	31	73.8	59	74.7		
	≥ 2 years	11	26.2	0	0.0		
Age of husband	< 20 years	0	0.0	14	17.7	12.58	0.015*
	20-<25 years	13	30.9	65	82.3		
	25-<30 years	22	52.4	0	0.0		
	≥ 30 years	7	16.7	0	0.0		
Husband's occupation	Government employee	11	26.2	9	11.3	5.631	0.091
	Private sector employee	30	71.4	50	63.3		
	Farmer	0	0.0	10	12.7		
	Free business	1	2.4	10	12.7		
Family type	Nuclear	15	35.7	0	0.0	13.25	0.005**
	Extended	27	64.3	79	100		
Mother's educational level	No read and write	0	0.0	24	30.4	11.97	0.011*
	Basic education	11	26.2	55	69.6		
	Secondary	22	52.4	0	0.0		
	Diploma	9	21.4	0	0.0		
Mother's occupation	Working	20	47.6	0	0.0	16.31	0.000**
	House wife	22	52.4	79	100		
Father's educational level	No read and write	0	0.0	18	22.8	16.76	0.000**
	Basic education	4	9.5	24	30.4		
	Diploma	35	83.3	37	46.8		
	University or more	3	7.2	0	0.0		
Father's occupation	Government employee	8	19	54	68.4	4.057	0.099
	Private sector employee	27	64.3	15	19		
	Pension	7	16.7	10	12.6		
Monthly income	Enough	42	84	6	8.5	15.38	0.000**
	Not enough	8	16	65	91.5		
Crowding index	< 1	18	42.9	0	0.0	11.47	0.017*
	1-2	18	42.9	30	38		
	>2	6	14.2	49	62		

* Statistically significant at p < 0.05. **highly statistically significant at p < 0.01

Table (5) indicates that, there were highly statistically significant positive correlation between female nursing students' knowledge and their reported practices regarding early marriage among the studied students. While, there were highly significant negative correlation between female nursing students' knowledge and risk factors for problems arising from early marriage among the studied students. Also, there were highly significant negative correlation between female nursing students' reported practices regarding early marriage and risk factors for problems arising from early marriage among female nursing students.

Table (5): Correlation between Total Knowledge, Reported Practices and Risk Factors for Problems Arising from Early Marriage among the Female Nursing Students (n=121)

Items	Total knowledge	Total risk factors
Total knowledge		r = - 0.481 P <0.001**
Total reported practices	r = 0.569 P <0.001**	r = - 0.501 P <0.001**

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

DISCUSSION

Early marriage essentially has an impact on women's autonomy and educational opportunities as well as many areas of adolescent, maternity, and female health. Early pregnancy is linked to morbidity, undernutrition, and maternal mortality. Collectively, these elements contribute to disadvantageous cycles by harming the next generation's chances of surviving, staying healthy, and prospering. But, as women often married before having children, initiatives to postpone early childbearing must first postpone women's marriage rates [11]. The purpose of the current study was to determine how much knowledge female nursing students have of the risks associated with early marriage.

Concerning sociodemographic characteristics of female nursing students, according to the current survey, where the mean age was 18.86, fewer than three-quarters of female nursing students were 19 years old. This finding was supported by **Aychiluhm et al.** [12], who investigated the factors that influence early marriage among married women in the reproductive age group in the Amhara regional state of Ethiopia (n=310). 73% of women, they discovered, were married before turning 18 years old. Additionally, this outcome was consistent with **Tessema** [13] study (n=245), which was done in Ethiopia. He discovered that 62.8% of the study's female participants had married before becoming 18 years old.

According to the present survey, more than three-quarters of female nursing students dwell in rural regions. This finding was supported by **Berliana et al.** [14], who investigated the factors that influence young marriage among female adolescents in Indonesia (n=268). They discovered that women in rural regions were 55% more likely to marry young than women in urban areas. Furthermore, this outcome was consistent with **Aychiluhm et al.** [12]. They discovered that 77.42% of women who reside in rural areas wed before the age of 18. **From investigator point of view**, in rural areas, parents brag about marrying their females early.

Concerning sociodemographic characteristics for parents, the current study showed that more than half of their mothers had a basic education. This result agreed with **Bawono et al.** [15] who conducted a study in Madura (n=600). They found that 55% of the low education of parents has an impact on early marriage of female.

Regarding father occupation of female nursing students, the current study showed that more than half of them were government employees. This result disagreed with **Lal** [16] who conducted a study in India (n=750). He found that 80% of the father occupation is agriculture and farmer. **From investigator point of view**, early marriage of female occurs due to size of family is large and income of parent not enough.

Regarding monthly family income of female nursing students, the current study showed that more than half of them have insufficient income. This result agreed with **Nabila et al.** [17] who conducted a study in Indonesia (n =590). They found that 54% of the factors that influence early marriage decision is poverty. Additionally, this result was in the same line with **Lal** [16]. He discovered that communities with low incomes account for 50% of the responders. **From investigator point of view**, families having insufficient income prefer early marriage of their daughters to remove burden of education, foods and heath care.

Regarding to crowding index of female nursing students, the current study showed that more than half of them have overcrowding index. This result agreed with **Ahmed and Elsayied** [18] who conducted a study in Egypt (n=764). They found that 83.2% of study students were from overcrowded of family. **From investigator point of view,** parent believes that many children honor him and every child brings his livelihood.

Answer research question No. (1) What are female nursing student's knowledge regarding early marriage?

Concerning total knowledge about early marriage and reproductive health of female nursing students, the current study showed that more than half of the studied sample had unsatisfactory level of total knowledge about early marriage and reproductive

health. **Naghizadeh *et al.*** **(3),** who did a study in Iran (n=300), disagreed with this finding. They discovered that 69.6% of females were more aware of the negative effects of early marriage in schools. Accordingly, this outcome is consistent with **Ahmed and Elsayied** [18]. They discovered that 70.1 percent of female students were unaware of early marriage. **From investigator point of view,** females don't have knowledge about early marriage and reproductive health due to low education of their mothers who don't have awareness regarding the consequences of early marriage.

Answer second part of research question No. (1) What are female nursing students reported practices regarding early marriage?

Regarding total reported practice regarding early marriage of female nursing students, the current study showed that less than two-thirds of the studied sample had inadequate practices regarding early marriage. This result agreed with **Erfina *et al.*** [19] who conducted a study in USA (n=1288). They found that 55% key factors reported in this study reported by mothers transitioning to motherhood were related to physical, psychological and social problems. **From investigator point of view,** married females don't have information, health care and good counseling to deal with physical, psychological and social problems.

Answer research question No. (2) What are the risk factors for problems arising from early marriage for female nursing students?

Regarding risk factors for problems arising from early marriage of female nursing students, the current study showed that more than half of risk factors for problems were arising from early marriage of female nursing students. This result agreed with **Sezgin and Punamäki** [20] who conducted a study in Turkey (n=1569). They found that 55% of early marriage had physical, psychological and social problems. Additionally, this result was in the same line with **Gandhi *et al.*** [21] who conducted a study in India (n=258). They found that > 50% females have physical, psychological and social problems. **From investigator point of view,** early marriage is risk factor for physical, psychological and social problems because the female is not mature enough to deal with problems.

Answer research question No. (3) Is there relation between female nursing students' sociodemographic characteristics and their knowledge?

Regarding relation between total knowledge and sociodemographic characteristics of female nursing students and their parents. The results of the current study showed a highly statistically significant relationship between the knowledge of early marriage among female nursing students and their sociodemographic traits, including age, employment status, length of marriage, husband's age, mother's educational attainment, mother's occupation, father's educational attainment, and monthly income. This result was in accordance with **Saleheen *et al.*** [22] study, in Bangladesh, Ghana, and Iraq (n=31060). They discovered a strong statistical relationship between the sociodemographic traits of females and their parents. **From investigator point of view,** this is because the social factors that a girl grew up in, affect her information.

Answer research question No. (4) Is there relation between female nursing student's sociodemographic characteristics and their reported practice?

Regarding relation between reported practice and sociodemographic characteristics of female nursing students and their parent marriage, the current study illustrated that there was highly statistically significant relation between female nursing students' reported practice regarding early marriage and their sociodemographic characteristics as age, working status, family type, mother's occupation, father's educational level and monthly income. This result was accordance with **Erfina *et al.*** [19]. They found that there was statistically significant relation with their marriage duration, age of husband, mother's educational level and crowding index. While, there were no statistically significant relation with their ranking between sibling, residence, husband's occupation and father's occupation. On the other hand, **De Groot *et al.*** [23] disagreed with this finding, as they conducted a research in northern Ghana (n=1349). They discovered no statistically significant correlation between their marriage and self-reported habit of getting married young. **From investigator point of view,** there are relation between reported practice and sociodemographic characteristics due to low income of parents and low information about early marriage and their consequences.

CONCLUSION

Based on the study findings and research questions. It could be concluded that more than half of female nursing students had unsatisfactory level of total knowledge, inadequate practices and high level of risk factors for problems arising from early marriage. There was highly statistically significant relation between female nursing students' reported practice regarding early marriage and their sociodemographic characteristics. There was highly statistically significant relation between female nursing students' knowledge about early marriage and their sociodemographic characteristics.

RECOMMENDATIONS
The following recommendations were made based on the findings of the current study:
- Implementing health education programmes with a focus on the negative health effects of

early marriage among students in various educational settings.

- Raising awareness for poor and illiterate students regarding prevention of early marriage and adverse effects of female early wedding.

Financial support and sponsorship: Nil.
Conflict of interest: Nil.

REFERENCES
1. **Fakhari A, Allahverdipour H, Esmaeili E *et al.* (2022):** Early marriage, stressful life events and risk of suicide and suicide attempt: a case–control study in Iran. BMC Psychiatry, 22(1): 1-11.
2. **Kumari N, Ram R, Shekhar C (2022):** Determinants of under-registration of marriage among women in India: An exploratory study in Jhunjhunu district of Rajasthan. Clinical Epidemiology and Global Health, 14: 100976.
https://doi.org/10.1016/j.cegh.2022.100976
3. **Naghizadeh S, Mirghafourvand M, Mohammadi A *et al.* (2021):** Knowledge and viewpoint of adolescent girls regarding child marriage, its causes and consequences. BMC Women's Health, 21(1): 1-10.
4. **Emeri P, Olarenwaju F (2022):** Impact of teenage pregnancy and early marriage on psychosocial well-being of pregnant teenagers in Lagos State: sociological implications. International Journal of Educational Research, 10(1): 91-101.
5. **Zulu I, Zulu J, Svanemyr J *et al.* (2022):** Application of community dialogue approach to prevent adolescent pregnancy, early marriage and school dropout in Zambia: a case study. Reproductive Health, 19(1): 1-9.
6. **Suryandari N, Holifah I (2022):** Family communication as a prevention effort early marriage in Pegantenan Village, Madura. Nyimak: Journal of Communication, 6(1): 41-54.
7. **Elsayied H, Esmat O, Hussein H (2018):** Primary prevention of health consequences for early marriage among female adolescent student in a rural area. International Journal Nursing Care, 2(1): 1-8.
8. **Scott S, Nguyen P, Neupane S *et al.* (2021):** Early marriage and early childbearing in South Asia: trends, inequalities, and drivers from 2005 to 2018. Annals of the New York Academy of Sciences, 1491(1): 60-73.
9. **Marphatia A, Saville N, Manandhar D *et al.* (2021):** Quantifying the association of natal household wealth with women's early marriage in Nepal. Peer J., 9:e12324. https://doi.org/10.7717/peerj.12324.
10. **Chow S, Shao J, Wang H *et al.* (2017):** Sample Size Calculations in Clinical Research. 3rd Edition. New York. DOI: https://doi.org/10.1201/9781315183084

11. **Central Agency for Public Mobilization and Statistics (CAPMAS): (2019):** Annual Analytical Report for Marriage and Divorce Statistics, Cairo, Egypt. Pp. 1-4. https://www.Capmas.gov.eg
12. **Aychiluhm S, Tesema A, Tadesse A (2021):** Early marriage and its determinants among married reproductive age group women in Amhara Regional State, Ethiopia: a multilevel analysis. BioMed Research International, 21: 1-9. https://doi.org/10.1155/2021/1969721
13. **Tessema Z (2020):** Spatial distribution and associated factors' of early marriage among reproductive age women in Ethiopia: a secondary data analysis of Ethiopian Demographic and Health Survey 2016. BMC Women's Health, 20(1): 1-11.
14. **Berliana S, Kristinadewi P, Rachmawati P *et al.* (2021):** Determinants of early marriage among female adolescent in Indonesia. International Journal of Adolescent Medicine and Health, 33(1). doi: 10.1515/ijamh-2018-0054.
15. **Bawono Y, Suminar D, Hendriani W (2019):** Low education and early marriage in Madura: a literature review. The Journal of Educational Development, 7(3): 166 - 172.
16. **Lal B (2018):** Child marriage in India: Case studies in Warangal District of Telangana State. International Multidisciplinary Research Journal, 8(4): 12-21.
17. **Nabila R, Roswiyani R, Satyadi H (2021):** A literature review of factors influencing early marriage decisions in Indonesia. Advances in Social Science, Education and Humanities Research, 655: 1392-1402.
18. **Ahmed A, Elsayied H (2021):** Knowledge of females preparatory students regarding early marriage health consequences. International Egyptian Journal of Nursing Sciences and Research, 2(1): 7-10
19. **Erfina E, Widyawati W, McKenna L *et al.* (2019):** Adolescent mothers' experiences of the transition to motherhood: An integrative review. International Journal of Nursing Sciences, 6(2): 221-228.
20. **Sezgin A, Punamäki R (2020):** Impacts of early marriage and adolescent pregnancy on mental and somatic health: the role of partner violence. Archives of Women's Mental Health, 23(2): 155-166.
21. **Gandhi A, Bhojani P, Balkawade N *et al.* (2021):** Analysis of survey on violence against women and early marriage: Gyneaecologists' perspective. The Journal of Obstetrics and Gynecology of India, 71(2): 76-83.
22. **Saleheen A, Afrin S, Kabir S *et al.* (2021):** Sociodemographic factors and early marriage among women in Bangladesh, Ghana and Iraq: An illustration from Multiple Indicator Cluster Survey. Heliyon, 7(5):e07111. doi: 10.1016/j.heliyon.2021.e07111.
23. **De Groot R, Kuunyem M, Palermo T (2018):** Child marriage and associated outcomes in northern Ghana: a cross-sectional study. BMC Public Health, 18(1): 1-12.