Awareness of Mothers Regarding Communication with their Adolescent Daughters about Reproductive Health

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Abstract

Background: In Egypt, reproductive health (RH) care has become a priority for the government in recent years. However, cultural barriers often prevent clear and open discussions about reproductive health. Aim: To assess the awareness of mothers regarding communication with their adolescent daughters about reproductive health. **Study design**: A cross-sectional descriptive study design has been used. Study setting: This study was conducted at the school health units in Gharbiya Governorate. Study subjects: A convenience sample of 400 mothers, who had female adolescents aged (10-19 years). Study tool: Data was collected using three tools, Tool I: Mothers', knowledge about reproductive health: to assess socio demographic characteristics of the mothers. Tool II: Awareness of mothers toward reproductive health education. Tool III: Communication of mothers with their adolescent daughters about reproductive health issues. Results: More than three quarters (76.3%) of the studied mothers had low level of knowledge about reproductive health. The study found that 64.3% of the studied mothers had negative awareness regarding communication of reproductive health with their adolescent daughters with a mean of 25.59±2.50. The mothers' total knowledge and awareness scores and their communication barriers scores revealed a statistically significant negative correlation. Conclusion: Nearly two thirds of the studied mothers had negative awareness regarding communication of reproductive health with their adolescent daughters. Recommendations: Community health nurse has to conduct awareness campaigns to educate mothers about the importance of reproductive health communication and its impact on female adolescents' health and well-being.

Key words: Awareness, female adolescents, communication, reproductive health.

Introduction:

According to the United Nations, adolescents were defined as those between 10 and 19 years old. It is a period between childhood and adulthood **(Bonnie, Backes, Alegria, Diaz& Brindis, 2019).** Adolescents are considered a high risk group as their health is influenced by a wide range of biological and social factors such as poverty and family problems **(Nawi et al., 2021)**. In addition, this period is characterized by risk-taking and experimental behavior, which exposes female adolescents to reproductive health problems **(Willoughby, Heffer, Good & Magnacca, 2021).**

In 2023, United Nations International Children's Emergency Fund (UNICEF) estimated that there were 1.3 billion adolescents worldwide, making up 16% of the world's population **(UNICEF, 2023)**. In Egypt, young people are becoming more prevalent quickly. Around 19,5 million adolescent make up 19% of the whole population **(Elnakib et al., 2022)**. Female adolescents are about 8.7 million representing 9% of total population according to Central Agency for Public Mobilization and Statistics **(CAPMASS, 2022).**

According to WHO reproductive health is defined as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and its functions and processes **(Kalidhasan& Arumugam, 2020)**.

Mothers and their adolescent daughters should discuss reproductive health issues, including physical changes during puberty, menstrual hygiene, breast self-examination, dietary habits during adolescence, female circumcision, sexual harassment, early marriage, and sexuality transmitted diseases. (**Zakaria, Xu, Karim & Cheng, 2019)**.

Adolescents may acquire information about reproductive health from a range of sources, including the internet, books, magazines, parents, teachers, and friends. Mothers are among the preferred sources for their adolescents daughters RH education. So mothers are an ideal source of reproductive health guidance because they can provide specific information based on their adolescents' family background, religion, and culture. Healthy RH practices and general well-being can be improved through discussion between mothers and their adolescent daughters (**Agu et al., 2021**).

Mothers may face barriers that restrict them from discussing to their adolescents daughters about reproductive health, including shame, generational differences, their own education and perception of their female adolescent daughters' understanding, religious and traditional misconceptions, their jobs, and a lack of time **(Yibrehu & Mbwele, 2020**).

Community health nurses play a vital role in providing adolescents with

reproductive health care in a variety of settings, such as public health clinics, schools, and homes. So, they can help female adolescents to have access to reproductive health care. They can educate mothers on the value of having communication about reproductive health issues with their daughters **(Ramalepa, 2023)**. Community health nurses should be aware of the obstacles that prevent mothers from communicating to their adolescent daughters and should assist them in overcoming these obstacles **(Coast, Lattof & Strong, 2019).**

Significance of the study:

Adolescents undergo major physical and emotional changes. The Egyptian public school curriculum does not provide much information on reproductive health to students. Female adolescent in particular are often kept away from learning about reproductive health (RH) issues because of the cultural and religious factors. Determining mothers adolescent daughters' communication about reproductive health issues helps to explore roles for mothers in supporting their female adolescents' RH needs and design appropriate intervention programs. Therefore, the aim of the current study was to evaluate the awareness of mothers regarding communication with their adolescent daughters about reproductive health.

Aim of the Study: The study aimed to evaluate the awareness of mothers regarding communication with their adolescent daughters about reproductive health.

Subjects and method:

Subjects

Study Design: A cross-sectional descriptive study design was used in this study.

Study settings: Three school health units were used as the study's settings in Gharbiya Governorate, Tanta city.

Study subjects: The study included a convenience sample of 400 mothers, who had female adolescents aged (10-19 years).

Tools of data collection:

The researcher used three tools to gather the data needed for this study.

Tool I: Mothers' knowledge about reproductive health: It consisted of two parts as follows:

Part (1): Socio-demographic characteristics of the mothers: This part included data about age, education, occupation of mother, marital status, residence, number of alive children, family type, family size as well as numbers of rooms.

Part (2): Knowledge of mothers regarding reproductive health: This part was developed by the researcher based on related literatures **(Othman et al., 2020**; **Priva, 2005** and **Korri et al., 2021)**. It consisted of 20 questions to evaluate the mothers' knowledge regarding reproductive health. The following topics were covered: Definition of reproductive health, whether they communicated with their friends about reproductive health issues, as well as problems of adolescent reproductive health,

concept of puberty, physical and psycho-social changes of adolescents, the contraceptive methods that she know. Furthermore, questions about menstruation, pregnancy, nutrition and sexually transmitted diseases as well as sources of information about reproductive health.

Scoring system:

-Every correct answer was scored one (1), the incorrect one was scored zero (0). These scores were summed up, and the total score was converted into a percentage.

The total score was classified as follows:

-Low level of Knowledge: (< 50%) of total score. (0-29)

-Moderate level of Knowledge: (50% - < 75%) of total score. (30-44)

-High level of Knowledge: (75%-100%) of total score. (45-60)

Tool II: Awareness of mothers towards reproductive health education:

The researcher modified and adapted this tool from a scale designed by Priva S, 2005. It consisted of two parts:

Part (1): Awareness of mothers regarding communication of reproductive health with their adolescent daughters: It consisted of eight statements to assess the awareness of mothers as regard communication with their adolescent daughters about reproductive health issues. It included statements whether if reproductive health issues should be discussed openly, the causes if she does not talk to her daughter about RH as shyness, her daughter is too young to talk about RH issues, and RH issue is not traditionally acceptable between mother and her adolescent daughter.

Part (2): Awareness of mothers towards the need of reproductive health education. It consisted of eight statements to assess the awareness of mothers toward the need of RH education such as whether reproductive health is essential for a healthy life, whether it enhances understanding of issues related to reproductive health, whether it starts with a positive perspective on life, whether it acts as an opportunity for premarital counselling, whether it raises awareness of adolescents' rights, whether it covers topics like sexual harassment, and whether it promotes positive habits and behavioral change.

The scoring system for awareness was as follows:

-These statements was rated on a 5 point likert scale including: Strongly agree (5), Agree(4), Undecided(3), Disagree(2) and Strongly disagree (1)

-These scores were summed up, and the total score was converted into percentage.

The total score was classified as the follows:

-Positive awareness towards reproductive health education: (≥60%) of the total score.

-Negative awareness towards reproductive health education: (<60%) the total score.

Tool III: Communication of mothers with their adolescent daughters about reproductive health issues:

The researcher adapted this tool based on relevant literature. It was composed of three parts.

Part (1): Mothers' communication experiences with their adolescent daughters toward reproductive health. This part was adapted by the researcher based on literatures **(Oo et al., 2013** and **Noe et al., 2018)**. It consisted of six multiple choice questions to assess the communication experiences of the mothers with their adolescent daughters toward reproductive health. It consisted of the following questions: whether they discussed reproductive health with their adolescent daughters, frequency reproductive health discussion in the past six months, discussion topic she discussed with her adolescent daughters, timing of first time she had discussions about reproductive health and tendency to discuss reproductive health issues with her adolescent daughter.

Scoring system:

-Every correct answer was scored one (1), the incorrect one was scored zero (0). These scores were summed up, and the total score was converted into percentage.

The total score was classified as follows:

-Ineffective communication experiences (<60%) (0-14) of total communication score.

-Effective communication experiences (≥ 60%) (15-26) of total communication score.

Part (2):Self-reported communication practices of mothers with their adolescent daughters. This part was adapted by the researcher using Parent-Adolescent Communication Scale (PACS) which was designed by **(Sales et al., 2008)**. It included 18 statements to assess communication practices of mothers with their adolescent daughters about reproductive health. It covered the following items: whether she can discuss her beliefs about reproductive health with her adolescent daughter without feeling embarrassed, if her adolescent daughter is always a good listener, if she sometimes afraid to ask her adolescent daughter for what she wants about reproductive health issues, and if there are topics she avoids discussing with her adolescent daughter.

Scoring system:

-These statements was rated on a likert scale including: 1=never, 2=rarely, 3=sometimes, 4=often.

-These score were summed up and the total score was converted into a percentage.

The total score was **classified as the following:**

-Effective communication: (≥ 60%) of total communication practices score.

-Ineffective communication: (< 60%) of total communication practices score.

Part (3): Barriers of communication between mothers and their adolescent daughters about reproductive health issues. This part was adapted by the researcher based on literatures **(Gomaa et al., 2022 and Nurachmah et al., 2018)**. It included 18 statements to identify barriers of communication between mothers and their adolescent daughters about RH issues. It included statements related to the following items; social barriers as generation gaps, culture barriers as traditional norms and beliefs that prevent talking about reproductive health, and economic barriers.

The scoring system:

-The response for each statement was either disagree given a score of (0) or agree given a score of (1).

-These scores were summed up and the total score was converted into a percentage.

The total score was **classified as the following:**

-Many barriers (score of 75 %).

-Some barriers score of (50 - <75 %)

-Few barriers (score of <50 %).

Method

The study was conducted as follows:

1-Obtaining approval

-The Dean of the Faculty of Nursing approved formal permission to conduct the study, which was then submitted to the manager of selected School Health Units.

-The manager of School Health Units was explained about the objectives of the study to obtain his consent to collect data from the previous settings.

2-Ethical and legal considerations:

- The Faculty of Nursing's Scientific Research Ethical Committees gave their approval for the study to be conducted. (Code no: 16/11/2022).
- An informed consent was obtained from all study subjects after providing appropriate explanation about the purpose of the study.
- Each mother was informed that she has the right to withdraw from the study any time she wants.
- Nature of the study did not cause any harm or pain for the entire sample.
- Confidentiality and privacy was taken into consideration regarding the data collected.
- All sheets were anonymous.

3-Developing the study tools:

-The researcher developed the study tool I after reviewing the related literatures

-The study tool II and III was adapted, modified and translated into Arabic language by the researcher based on literature review.

-Before the study was conducted, a jury of five professors who were experts in the field of community health nursing evaluated the study tools for face and content validity. Total questionnaire content validity index was found to be 94.35%.

-Reliability was calculated to study tool using Cronbach's Alpha test. Total questionnaire Cronbach's Alpha was 0.872.

-Significance was at $p<0.05$ for interpretation of the results.

4-Pilot study:

-The researcher conducted a pilot study on 10% of the sample to test the tools for clarity and applicability, identify possible barriers for the researcher during data collection, and estimate the time required to collect data from each mother. Consequently, the required adjustments were made. These mothers were not included in the study's sample.

5-Actual study:

-The researcher met the mothers of female adolescents in the waiting area of the selected three school health units at Tanta city.

-The structured interview sheet was individually fulfilled from each mother of female adolescents at the three previously selected school health units.

-It took an average of 20 minutes to gather the data from each mother. The researcher spent two days a week with the mothers of female adolescents.

-Data was collected by the researcher over a period of five months starting from the first of June 2023 to the end of October 2023.

6-Statistical analysis of the data:

SPSS (Statistical Package for Social Science) version 25 (IBM Corporation, Armonk, NY, USA) was used to code, enter, tabulate, and analyze the data that was gathered. Range, mean, and standard deviation were computed for quantitative data. Chi-square test was used for qualitative data, which describe a categorical set of data by frequency, percentage, or proportion of each category, comparison between two groups, and more. The Z value of the Mann-whitney test was used to compare the means of two groups of independent samples' non-parametric data. To compare more than two non-parametric data means, Kruskal-Wallis was computed. Pearson's correlation coefficient (r) was used to assess the relationship between the variables.

Results

Table (I): It shows the distribution of the studied mothers according to their socio-demographic characteristics. This table represented that about half of studied mothers (54.0%) their age ranged from more than 35 to 45 years with mean age 42.53±6.97 years. As regard to level of education, slightly more than half of studied mothers (53.2%) had secondary education. About two-thirds of the mothers (66.0%) were working. As regard to mothers' job, 22.3% were working in administrative work. The majority of the studied mothers (83.8%) were married. About 61.5% were from rural area. The mean age of marriage was 20.69±2.86 years and 60.3% had three to four children.

Table (II): Represents the distribution of the studied mothers regarding their total score of knowledge about reproductive health. The table illustrated that, 76.3% of the studied mothers had low level of knowledge about

reproductive health, while (17.5%) of them had moderate level of knowledge. It also revealed that the mean score of the studied mothers' knowledge was 21.74±10.63.

Table (III): Represents the distribution of the studied mothers regarding their total awareness score of communication and the need for reproductive health education with their adolescent daughters. The table showed that 64.3% of the studied mothers had negative awareness regarding communication of reproductive health with adolescent daughter. Meanwhile, more than two thirds (٦٩.٥%) of them had positive awareness towards the need for reproductive health education. As regard to total awareness score, 51.5% of the studied mothers had total positive awareness toward reproductive health education and communication, with a mean score of total awareness level towards reproductive health education and communication was 54.53±6.08.

Table (IV): Represents the distribution of studied mothers regarding communication experiences and self-reported communication practices scores with their adolescent daughters. The table illustrated that, almost (93.8%) of the studied mothers had ineffective communication experiences. with a mean of 6.34±4.61. Regarding the level of self-reported communication practices, 61.0% of the studied mothers had ineffective communication practices with a mean of 47.04±7.46.

Table (V): Represents the distribution of studied mothers regarding communication barriers between them and their adolescent daughters about reproductive health issues. Concerning the social barriers, the majority of the studied mothers (81.8%) reported generation gaps. Regarding the cultural barriers, 73.5% of the studied mothers reported traditional norms, customs and believes. In relation to economic barriers 63.7% of the studied mothers stated that they hadn't sufficient time needed to discuss RH issues, followed by mothers occupation was (57.3%). In respect to the individual barriers, most of the studied mothers (79.3%) reported that they didn't have enough and correct information.

Table (VI): Represents the relationship between knowledge total score level of the studied mothers and their total awareness and communication scores with their daughters about reproductive health. The table indicated that, there were a statistically significant relationship between total knowledge score level of the studied mothers and their total awareness towards reproductive health ($P<0.05$), where those who had high level of knowledge gained total positive awareness score. This was also true regarding their communication experiences score level, self-reported communication practices and barriers scores towards their daughters about

reproductive health (P<0.05), where those who had high level of knowledge gained effective experiences score level, more self-reported communication practices and few communication barriers scores towards their daughters about reproductive health.

Table (VII): Represents the relationship between total awareness of the studied mothers about reproductive health and their socio demographic characteristics. It was found that, there was a statistically significant positive relationship between total awareness of the studied mothers and their educational level, occupation, job. Regarding education those who had university education gained high score. As regard to occupation, working ones gained higher score. In relation to job mothers who work at professional job had higher score. In contrary, there was no statistically significant relationship with age, marital status and residence.

Table (I): Distribution of the studied mothers according to their socio-demographic characteristics.

Socio-demographic characteristics	The studied mothers (n=400)	
	N	%
Age in years		
23-35	69	17.3
>35-45	216	54.0
>45-59	115	28.7
Range	23-59	
Mean±SD	42.53±6.97	
Educational level		
Illiterate or read and write	83	20.8
Elementary education	33	8.2
Secondary / technical secondary education	213	53.2
University & postgraduate education	71	17.8
Occupation of the mother		
Working	264	66.0
House wife	136	34.0
Mothers' job		
House wife	136	34.0
administrative work	89	22.3
Craft work	42	10.5
Professional work	65	16.2
Business work	68	17.0
Marital status		
Married	335	83.8
Divorced	32	8.0
Widow	33	8.2
Residence		
Rural	246	61.5
Urban	154	38.5
Age of marriage in years		
12-20	232	58.0
>20-30	168	42.0
Range	12-30	
Mean±SD	20.69±2.86	
No. of alive children		
1 & 2	138	34.5
3 & 4	241	60.3
5-7	21	5.2

Table (II): Distribution of the studied mothers regarding their total score of knowledge about reproductive health.

Total knowledge score and level about reproductive health	The studied mothers (n=400)	
	N	%
Total knowledge level		
Low level (<50%) (0-29)	305	76.3
Moderate level (50-<75%) (30-44)	70	17.5
High level (75-100%) (45-60)	25	6.2
Total knowledge score (0-60)		
Range	10-58	
Mean±SD	21.74±10.63	

Table (III): Distribution of the studied mothers regarding their total awareness score of RH communication and the need for reproductive health education with their adolescent daughters.

Awareness level towards reproductive health communication and education	The studied mothers (n=400)	
	N	%
I-Awareness level regarding communication of RH with adolescent daughter		
Negative awareness (<60%) (8-26)	257	64.3
Positive awareness (≥ 60%) (27-40)	143	35.8
Range	8-35	
Mean±SD	25.59±2.50	
II-Awareness level towards the need of RH education		
Negative awareness (<60%) (8-26)	122	30.5
Positive awareness (≥ 60%) (27-40)	278	69.5
Range	8-40	
Mean±SD	28.95±5.33	
Total awareness level towards RH education and communication.		
Negative awareness (<60%) (16-53)	**194**	**48.5**
Positive awareness (≥ 60%) (54-80)	**206**	**51.5**
Range	**16-72**	
Mean±SD	**54.53±6.08**	

Table (IV): Distribution of studied mothers regarding communication experiences and self-reported communication practices scores with their adolescent daughters.

Level of communication with adolescent daughters toward reproductive health	Level of communication experiences and self-reported communication practices of the studied mothers (n=400)	
	N	%
<u>Level of communication experiences</u>		
Ineffective experiences (<60%) (0-14)	375	93.8
Effective experiences (≥ 60%) (15-26)	25	6.2
Mean±SD	**6.34±4.61**	
<u>Level of self-reported communication practices</u>		
Ineffective practices (<60%) (18-49)	244	61.0
Effective practices (≥ 60%) (50-72)	156	39.0
Mean±SD	**47.04±7.46**	

Table (V): Distribution of the studied mothers regarding communication barriers between them and their adolescent daughters about reproductive health issues.

Communication barriers between mothers and their adolescent daughters about reproductive health issues	The studied mothers (n=400)			
	Disagree		Agree	
	N	%	N	%
Social barriers.*				
1- Generation gaps	73	18.3	327	81.8
2- The ability to obtain information from any source other than mother.	138	34.5	262	65.5
3- Feeling that talk about RH encourage sexual experience.	148	37.0	252	63.0
4- Feeling that talk about RH offends the modesty of your adolescent daughter,	126	31.5	274	68.5
5- Mothers depend on school to take adequate information regarding RH.	175	43.8	225	56.3
Cultural barriers.*				
1- Traditional norms, customs and believes	106	26.5	294	73.5
2- The belief that talking about RH is not suitable for your adolescent daughter's age.	115	28.7	285	71.3
3- The belief that talking about RH is only before marriage.	148	37.0	252	63.0
4- Talking about reproductive health contradicts religious belief	169	42.3	231	57.8
5- Talking about reproductive health is unethical topic for discussion.	160	40.0	240	60.0
Economic barriers.*				
1- Mothers occupation	171	42.8	229	57.3
2- Taking extra working hours to improve the family income	174	43.5	226	56.5
3- Insufficient time needed to discuss RH issues	145	36.3	255	63.7
Individual barriers. *				
1- Lack of communication skills of mothers.	93	23.3	307	76.8
2- Feeling shame when talking about RH	106	26.5	294	73.5
3- Feeling that I don't have enough and correct information.	83	20.8	317	79.3
4- Difference in the educational level between me and my daughter	101	25.3	299	74.8
5- Inability to use examples during communication to clarify information.	89	22.3	311	77.8

*More than one answer is correct.

Table (VI): Relationship between total knowledge score level of the studied mothers and their total awareness and communication scores with their daughters about reproductive health.

Total score level of awareness and communication	Total knowledge score level of the studied mothers (n=400)						χ^2 test P value
	Low level (n=305)		Moderate level (n=70)		High level (n=25)		
	N	%	N	%	N	%	
Total awareness score level towards reproductive health education							
Negative awareness	179	58.7	13	18.6	2	8.0	54.196
Positive awareness	126	41.3	57	81.4	23	92.0	0.0001*
Total communication experiences score level with adolescent daughters							
Ineffective experiences	305	100	61	87.1	9	36.0	167.845
Effective experiences	0	0	9	12.9	16	64.0	0.0001*
Total self-reported communication practices scores level with adolescent daughters							
Ineffective practices	226	74.1	15	21.4	3	12.0	93.302
Effective practices	79	25.9	55	78.6	22	88.0	0.0001*
Total communication barriers scores level about reproductive health issues							
Few barriers	45	14.8	49	70.0	17	68.0	133.140
Some barriers	29	9.5	6	8.6	8	32.0	0.0001*
Many barriers	231	75.7	15	21.4	0	0	

***Statistically significant (P<0.05)**

Table (VII): Relationship between total awareness of the studied mothers with their adolescent daughters about reproductive health and their socio demographic characteristics.

Socio-demographic characteristics	N	Awareness total scores towards reproductive health education of the studied mothers (n=400)		
		Mean±SD	Z value or χ^2 value	P value
Age years				
23-35	69	54.45±6.30	0.698	0.705
>35-45	216	54.75±5.99		
>45-59	115	54.17±6.14		
Educational level				
Illiterate or read and write	83	52.57±5.30	50.792	0.0001*
Elementary education	33	53.00±6.07		
Secondary / technical secondary education	213	54.01±5.78		
University & postgraduate education	71	59.10±5.58		
Occupation of the mother				
Working	264	55.61±5.86	5.243	0.0001*
House wife	136	52.43±5.97		
Mothers' job				
House wife	136	52.43±5.97	18.208	0.0001*
Administrative work	89	56.52±4.06		
Craft work	42	54.90±5.44		
Professional work	65	56.71±7.69		
Business work	68	53.82±5.73		
Marital status				
Married	335	54.38±5.65	4.558	0.102
Divorced	32	57.19±6.80		
Widow	33	53.54±8.63		
Residence				
Rural	246	54.43±5.92	0.654	0.513
Urban	154	54.70±6.35		

Discussion:

Adolescent girls in Egypt face a number of issues, including unsafe abortions and early childbearing with high rates of unwanted pregnancies related to physiological and psychological factors predisposing them to reproductive health problems. **(Panjalipour et al., 2020).** Effective communication between mothers and their adolescent daughters regarding RH requires mothers to be able to communicate openly and give accurate and correct advice about RH to their adolescent daughters as they become more sexually

aware. **(Silva et al., 2022).** Therefore, the aim of the current study was to evaluate the awareness of mothers regarding communication with their adolescent daughters about reproductive health.

Mothers' knowledge about reproductive health must not be ignored, as it is the first step for raising their awareness toward the importance of communication with their adolescent girls regarding RH. The findings of the current study indicated that more than three quarters of the studied mothers had low level of knowledge about reproductive health. **(Table II)**. This result is in contrary with the findings of the study conducted by **Alderaan et al., (2020)** who reported that the majority of the studied mothers had good knowledge regarding the different issues of puberty. This may be due to cultural difference and higher educational level of their participants as most of them had university education. Meanwhile, less than one fifth of mothers had university education in the current study **(Table I).**

Awareness is to be conscious of a subject. Mothers of adolescent girls should be aware of the importance of communicating RH issues with their daughters. From this perspective, the present study showed that more than three fifth of the studied mothers had negative awareness regarding communication of RH with their adolescent daughter. **Table (III).** This agrees with **Noe et al.,(2018)** who found that slightly less than three fifth of mothers had negative awareness. From the researcher point of view, this can be justified as, about two-thirds of the studied mothers in the present study were working which is considered an economic barriers for communication **(Table V).**

Reproductive health education can help mothers better understanding the social development and interaction with their adolescent daughters. Concerning awareness toward reproductive health education, the current study showed that more than half of the studied mothers had total positive awareness toward reproductive health education and communication. **(Table III).** This is similar with **Shams, Parhizkar, Mousavizadeh & Majdpour. (2017)** who revealed that about half of the mothers believed that they need reproductive health education and communication. From the researcher point of view this can be attributed to as most of the studied mothers was from rural areas, which potentially limited their access to reproductive health information.

Successful mother- female adolescent communication about RH issues frequently raises awareness of these issues and lowers risky conduct and its effects on female adolescent populations. This study showed that, almost all of the studied mothers had ineffective communication experiences**.** **(Table IV**). These findings are in the same line with **Oaa et al., (2017).** They found that, less than three quarters of mothers had ineffective communication

experiences with their adolescent daughters about of RH education. This can be attributed by that most of the studied mothers in the present study reported that they didn't have enough and correct information about RH issues.

Mothers face significant challenges when discussing reproductive health (RH) issues with their adolescent daughters. These challenges stem from deeply rooted cultural and generational factors that create communication gaps. The barriers that were reported by the mothers in the present study regarding their ineffective communication with their adolescent daughters were the generation gap, traditional norms and customs, and the belief that talking about RH is inappropriate for their daughters' age. They also reported feeling with shame regarding talking about RH issues conversations, while others reported that they lack accurate information about RH.**(Table V).**

Similarly, **Namukwaya et al. (2023),** who found that sociocultural norms and limited parental knowledge were significant barriers to effective parent-adolescent communication about sexual and reproductive health. This can be justified that the consistent identification of cultural taboos, generational differences, and limited parental knowledge as barriers to effective communication about reproductive health which highlight how these factors prevent open discussions between parents and adolescents, emphasizing the universal nature of these challenges across different cultural contexts.

Effective mothers' communication practices with their adolescent daughters about RH emphasize on creating a supportive environment, through mothers' active listening which can enhancing daughters' understanding of RH and empowering them to make informed decisions. In this light, more than three fifth of the studied mothers had ineffective communication practices. **(Table IV).** This finding is in line with **Singh et al., (2023)** who found that more than half of the mothers had ineffective communication practices about RH issues. This can be justified as most of the studied mothers in the present study facing many communication barriers such as economic barriers as about two thirds of them were working and they face cultural barriers such a traditional norms and customs **(Table I) and (Table V).**

Knowledge and awareness are intrinsically linked together. It is expected that those mothers who had high knowledge about RH and positive awareness will have a tendency to communicate with their female adolescents about RH. This was proved in the current study, as there was a statistically significant relationship between total knowledge score of the studied mothers and their total awareness score towards reproductive health. Those who had high level of knowledge about RH gained total positive awareness score. **(Table VI).**

Similarly, the study performed by **Kashyap & Choudhari. (2024)** who found that there was a significant relationship between total knowledge of the mothers, and their total awareness regarding reproductive health. This can be justified as, when knowledge are present, better awareness is expected.

Mothers who are well-prepared and knowledgeable are the best sources of reproductive health for their girls. It is critical to keep in mind that education is an essential aspect. The current study revealed presence of a highly statistically significant positive relationship between total knowledge score as well as total awareness of the studied mothers and their education, where the university educated ones gained significantly higher score more than others. **(Table VII).** These findings agree with Iranian study done by **Bekele, Deksisa, Abera, & Megersa. (2022)**. They found that, there was a statistically significant relationship between mothers' knowledge, total awareness and their education. This can be justified as, educated mothers have greater access to information and resources, which enables them to engage more effectively in discussions with their adolescent daughters on these sensitive topics.

Finally, it can be concluded that the present study directed the light to give more attention to the importance of communication between mothers and their daughters regarding RH issues. However, most of the studied mothers had low level of knowledge about RH, as well as they felt uncomfortable approaching their female adolescents about sexual matters. Consequently, they reported more need for education and guide their daughters away from relying on the internet and peers. Therefore more education programs should be conducted to mothers of adolescent girls to support them to guide their adolescent daughters effectively.

Conclusion

It can be concluded from the current study's results that, most of the studied mothers were unaware of the importance of communication with their daughters about RH and had poor communication practices with them, as nearly two thirds of the studied mothers had negative awareness regarding communication of reproductive health with their adolescent daughters. Furthermore, more than three quarters of the studied mothers had low level of knowledge about reproductive health.

Recommendations

In light of the present study's findings, the following recommendations are suggested:

1) Community health nurse has to conduct awareness campaigns to educate mothers about the importance of RH communication and its effects on adolescents' health and well-being.
2) There is a need for developing training programs at primary health care settings to equip mothers with effective communication techniques for discussing sensitive RH topics with their daughters.

3) Strengthening collaboration between schools and families by incorporating RH education programs that engage both students and parents, ensuring a unified approach to RH awareness.
4) Mass media including radio, television, and social media platforms need to broadcast educational programs that guide mothers on how to approach RH topics effectively with their daughters.

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