

## Enhancement of Knowledge and Attitude for Secondary School Adolescent Girls Regarding Reproductive Health

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**Abstract:** Reproductive health is a crucial part of the general health, not only as a key element of the health during adolescence and adulthood but also through sitting the stage for health beyond the reproductive years for both women and men. The aim of the study is to evaluate the effect of enhancement of knowledge and attitude of secondary school girls regarding reproductive health. The present study hypothesized that most of girls had lack of knowledge and misconception about reproductive health issues which may negatively affect their attitude before providing them with guideline. The study conducted at Alshiamaa secondary school located in Benha City at Kaluobia Governorate. The sample included 160 girls in adolescent period, from third year. The tools of data collection were structured demographic sheet, knowledge questionnaire sheet and modified Likert Scale. The result showed that 58.8% of secondary school girls who are included in the study had poor knowledge about reproductive health issues and 67.5% of them had negative attitude about it. The study recommended that, developing reproductive health awareness programs targeted to adolescents on large sample size, in different schools to high light this issue.

### INTRODUCTION

Adolescence is broadly understood as a period of physical, psychological, and social maturity from childhood to adulthood. The World Health Organization defines adolescence both in terms of age between 10 to 19 years and in terms of phase of life marked by special attributes. These attributes include rapid physical growth and development, physical, social, and psychological maturity but not all at the same time, sex and maturity and the onset of sexual activity, experimentation,

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development of adult mental processes and adult identity and transition from total socio-economic dependence to relative independence <sup>(1)</sup>.

Adolescents constitute a large and important segment of the population worldwide, as one in every five people in the world is an adolescent. <sup>(2)</sup>.

Young women of all socio-economic statuses are often restricted to a life centered around the home, and at puberty girls are increasingly protected from the outside world with restrictions on their mobility and independent actions while for young men the world often expands after puberty as they gain autonomy, mobility, opportunity, and responsibilities outside the home <sup>(3)</sup>.

Young people face a variety of reproductive health risks, sexually transmitted infections (STIs) including HIV infection, too-early pregnancy and childbearing with an increased risk of injury, illness and death for mother and

infant, and unintended pregnancy, often leading to unsafe abortion and its complications<sup>(4)</sup>.

Young people may know little about reproductive health and may have incorrect or misleading information about fertility and contraception. Many have negative attitudes about reproductive health. Thus, meeting the reproductive health needs of adolescents requires not only providing services, but also changing attitudes, overcoming community opposition, building understanding, and educating adults about young people's reproductive health needs

Reproductive behaviors during adolescence and young adulthood, whether within or outside marriage, have immediate and long-term consequences, many of which can be emotionally or physically harmful. Yet, in many countries, taboos about sexuality, and social norms such as child marriage and early sexual initiation, pose strong barriers to providing

young people with the information and services they need<sup>(5)</sup>.

The sexual and reproductive health needs of adolescents differ from those of adults, and remain poorly understood and inadequately served in many parts of the world. Addressing the needs of young people, and promoting healthy sexual and reproductive development, maturation, and behavior, undoubtedly represent a considerable challenge for many countries

The nurse plays an essential role in promoting and improving reproductive health and women's rights not only as a health care provider but also as an administrator, as a manager, as an educator, as a researcher and as a counselor. The promotion of adolescent sexual and reproductive health involves equipping young people with the relevant, knowledge motivation, and behavioral skills to enhance sexual and reproductive health and avoid sexual and reproductive health related problems.<sup>(6)</sup>.

### **Significance of the study :**

Adolescence is the most dynamic period in human development. It is marked by profound biological and psychological changes. In spite of this, adolescent health, especially reproductive health, is a neglected area, as evidenced by the absence of reliable sexual health related information. Adolescents are subjected to many influences, including those of parents, teachers, colleagues, health care providers, and particularly religious and culture norms. Moreover, adolescence is a time of confusion and vulnerability to certain risk-taking behavior, which may lead to serious complications. so there is an urgent need to focus more attention on adolescence knowledge and attitude regarding reproductive health. To correct misconception about reproductive health and avoid physical and psychological problem .

### **Aim of the Study:**

To evaluate the effect of enhancement

of knowledge and attitude for secondary school girls regarding reproductive health.

**Research Hypothesis :**

1. Secondary school girls had lack of knowledge and misconception about reproductive health issues which may negatively affect their attitude.
2. After providing the secondary school girls with guideline their Knowledge and attitude about reproductive health issues will be improved.

**Subjects and Methods:**

An intervention study conducted at Alshiamaa secondary school located in Benha City at Kaluobia Governorate. This school contains<sup>(11)</sup> class. Each class contains 30 students. The third year students were chosen from the above mentioned setting to conduct the study because they represent the age selected to be included in the study.

The total number of students was 330 students (literatures and sciences specialty) during study year 2005-

2006. The sample size recruited in this study was 160 students.

**Ethical consideration :** The information obtained from the adolescent girls must be confidential to avoid shame to them .

**Tools of Data collection :**

1- Questionnaire sheet covered the following :

**A.** Socio-demographic data as age, religion, residence, colleges, educational year, parent education and occupation, number of family members,....,etc .

**B.** Items to assess secondary school girls' knowledge about reproductive health issues. It was divided into 10 major parts of questions to assess the following:

Student knowledge about the elements of reproductive health: anatomy of female reproductive system, puberty, menstrual health, female genital mutilation, premarital counseling, pregnancy, labor and breast feeding, family planning and sexually transmitted diseases.

- scoring system of knowledge (good, fair,

and poor, 2 degree for good,1 degree for fair ,0 for poor)

Modified likert scale to assess attitude of the secondary school girls. regarding reproductive health issues. 2 degree it was considered "a positive attitude". 1 degree if it was "sometimes". Zero if it was incorrect.

### **Method**

This study was carried out by four phases:

Assessment phase which was concerned with the assessment of knowledge and attitude of the sample in relation to reproductive health to reveal the gaps of their knowledge.

Designing phase, which includes development of informational guideline, intended for secondary school girls. This phase depended on the result of the first phase as well as on the current literature review.

Implementation phase: the preliminary

draft of the informational guide was provided to the girls.

The final phase: The informational educational guide was evaluated to girls response.

### **Procedure:**

Assessment Phase: The assessment sheet was used to collect the necessary data, based on this data, the general characteristics, knowledge, attitude regarding reproduction health as well as the specific needs of girls were identified. Analysis of the results was accordingly done.

Designing Phase: The girls needs were driven from the results yielded from the assessment of girls knowledge, attitude, and review of literature.

Implementation Phase:

Objectives : education of the adolescent female student about important issues in reproductive health .

Number and duration of the sessions :

12 lectures, from (1.5/ 2) hours on the average given in four weeks (3 lectures/week) .The lectures were given for both groups of students early in the morning before their regular schedule .

Methods: Lectures followed by free discussion with students . Booklets containing all the topics of the program were distributed among students. The topics were based upon the WHO publication manual "health education for adolescent girls "

Teaching aids: overhead projector .

Elements of reproductive health as: anatomy of female reproductive system, puberty, menstrual health, female genital mutilation, premarital counseling, pregnancy, labor and breast feeding, family planning and sexually transmitted diseases.

– Post-test stage: The same questionnaire was answered by the students at the end of the implementation Phase (4weeks period ), to assess the changes in knowledge and attitude of the studied sample .

**Results:****Table (1): Socio-Demographic Characteristics of Secondary school girls.**

Items	Number N=160	%
<b>Age</b>		
-17 -18 years	29	18.1
-18-19 years	96	60.0
-19->20 years	35	21.9
$\pm$ SD	18.20 $\pm$ 0.65 years	$\bar{X}$
<b>Religion</b>		
-Moslem	158	98.8
<b>Residence</b>		
- Urban	46	28.8
- Rural	114	71.2
<b>Secondary Education</b>		
- Literatures Specialty	42	26.3
- Sciences Specialty	118	73.7
<b>Educational Year</b>		
- First Year	80	50
- Second Year	80	50

Table (1) revealed the socio-demographic characteristics of secondary school girls. The mean age of girls was (18.20  $\pm$  0.65)years, (60%) of them were between (18-19) years, 98.8% of them were Moslems, and (71.2%) of them were

from rural areas. With regard to educational background of late adolescent girls, (73.7%) of them were science specialty in secondary education, and (50%) enrolled in the first year .

**Table (2): Secondary school girls Knowledge Score regarding Reproductive Health.**

Items	Pre n=160		Post n=160		T& P value
	%	No	%	No	
<b>Poor</b> < 50%	94	58.8	-	-	25.1 <0.001
<b>Fair</b> ≥ 50% <75%	59	36.9	29	18.1	
<b>Good</b> ≥ 75%	7	4.3	131	81.9	
$\bar{X} \pm SD$	50.4± 13.4		83.0± 9.7		

It was noticed from table (2) that While only (4.3%) of them had good (58.8%)of the girls had poor knowledge in knowledge about it. total score about reproductive health.

**Table (3): Secondary school girls Attitude Score regarding Reproductive Health**

Items	Pre n=160		Post n=160		T& P value
	%	No	%	No	
<b>Positive Attitude</b> > 50%	43	26.9	114	71.2	15.7 <0.001
<b>Uncertain Attitude</b> = 50%	9	5.6	-	-	
<b>Negative Attitude</b> < 50%	108	67.5	46	28.8	
$\bar{X} \pm SD$	41.9±17.7		73.05±18.2		

It was noticed from table (3) that ( reproductive health. Only (26.9%) of them 67.5%) of girls had negative attitude about had positive attitude about it.

**Table (4): Relation between Secondary school girls Knowledge Score regarding Reproductive Health and Their Attitude.**

Total Knowledge Score	Total Attitude						Total	χ <sup>2</sup>	P
	Negative		Indifferent		Positive				
	N	%	N	%	N	%			
- Good	2	1.8	-	-	5	11.6	7	25.5	<0.001
- Fair	30	27.8	3	33.3	26	60.5	59		
- Poor	76	70.4	6	66.6	12	27.9	94		
- Total	108	100.0	9	100.0	43	100.0	160		

NB: - High significant relation at a level of <0.001  
 - Significant relation at a level of <0.005

Highly significant relation was observed Slightly less than 3 quarters of girls who (χ<sup>2</sup> =25.5, P <0.001) between girls' total have negative attitude have also poor attitude and their total knowledge, table 4 knowledge .

**Table (5): Relation between secondary school girls knowledge score regarding reproductive health and their socio-demographic factors.**

Socio-Demographic Factors	total knowledge						Total	$\chi^2$	P
	Poor		Fair		Good				
	N	%	N	%	N	%			
<b>Residence</b>									
- Urban	22	23.4	22	37.3	2	28.6	46	0.255	>0.005
- Rural	72	76.6	37	62.7	5	71.4	114		
<b>Specialty of education</b>									
<i>Literatures specialty</i>	52	55.3	8	13.6	1	14.3	61	28.7	<0.001
<i>sciences specialty</i>	42	44.7	51	86.4	6	85.7	99		
<b>Father education</b>									
- High education	14	14.9	19	32.2	3	42.9	36	7.8	<0.005
- Middle education	43	45.7	29	49.1	3	42.9	75		
- Illiterate	37	39.4	11	18.7	1	14.3	49		
<b>Mother education</b>									
- High education	5	5.3	14	23.7	2	28.6	21	16.6	<0.001
- Middle education	40	42.6	29	49.1	4	57.1	73		
- Illiterate	49	52.1	16	27.2	1	14.3	66		
<b>Family members</b>									
1- 4	11	11.7	18	30.5	2	28.6	31	5.4	>0.005
5 - 7	70	74.5	34	57.6	5	71.4	109		
8 - 10	13	13.8	7	11.9	-	-	20		
<b>Total</b>	<b>94</b>	<b>100.0</b>	<b>59</b>	<b>100.0</b>	<b>7</b>	<b>100.0</b>	<b>160</b>		

NB: - High significant relation at a level of <0.001

- Significant relation at a level of <0.005

Table (4) cleared that, there was a knowledge had sciences specialty highly significant relation between type of students. Also a highly significant relation *specialty* and girls' total knowledge, good was between girls' total knowledge score.

and their mothers' level of education. This table also revealed that there was statistical significant relation between fathers' level of education and girls' total knowledge score.

statistical significant relation between

**Table (6): Relation between Secondary school girls attitude regarding reproductive health and their socio-demographic factors.**

Socio-Demographic Factors	total Attitude						Total	$\chi^2$	P
	Negative		indifferent		Positive				
	N	%	N	%	N	%			
<b>Residence</b>									
- Urban	25	23.1	3	33.3	18	42.9	46	5.4	<0.005
- Rural	83	76.9	6	66.7	25	57.1	114		
<b>Branches</b>									
<i>Literatures</i>	49	45.4	5	55.6	7	16.3	61	12.4	<0.001
<i>speciaty sciences</i>	59	54.6	4	44.4	36	83.7	99		
<b>Father education</b>									
- High education	13	12.0	2	22.3	21	48.8	36	10.4	<0.005
- Middle education	56	51.9	4	44.4	15	34.9	75		
- Illiterate	39	36.1	3	55.6	7	16.3	49		
<b>Mother education</b>									
- High education	5	4.6	1	11.1	15	34.9	21	12.3	<0.001
- Middle education	49	45.4	3	33.3	21	48.8	73		
- Illiterate	54	50.0	5	55.6	7	22.9	66		
<b>Family members</b>									
1-4	14	13.0	1	11.1	16	37.2	31	9.9	<0.005
5 - 7	77	71.3	7	77.8	25	58.1	109		
8 - 10	17	15.7	1	11.1	2	4.7	20		
<b>Total</b>	<b>108</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>	<b>43</b>	<b>100.0</b>	<b>160</b>		

NB: - High significant relation at a level of <0.001

- Significant relation at a level of <0.005

Table 6 showed that there was highly statistical significant relation ( $P < 0.001$ ) between girls' total attitude and socio-demographic characteristics such as residence, specialties and mothers' education. This table also revealed that there was statistical significant relation ( $P < 0.005$ ) between girls' total attitude and fathers' education, and number of family members

## DISCUSSION

Adolescence is the most crucial period of human life. Knowledge and attitude gained during this period will affect the whole future and quality of life for young people. Adolescents are growing sector of the population and their passage with this period of life is usually difficult for themselves and for their caring adults so the aim of this study is to evaluate the effect of enhancement of knowledge and attitude for Secondary school girls regarding reproductive health.

The boklet was developed , reviewed

and Print materials (including informational educational guide) considered effective channels to disseminate health education messages. There are many advantage and communication. These advantages include that they are easy to store and they can be used without any special equipment. They are excellent tools to reinforce verbal messages during interpersonal contact therefore, they can be used as reference materials if the health provider forgets important messages. The finding of present study (table 2), illustrated that slightly more than half of the girls had poor knowledge about reproductive health. While only few of them had good knowledge about it. This lack of knowledge may be related to lack of implementation of effective educational programs about reproductive health. Also reproductive health topics may be not included in the educational curricula, Also ( WHO, 2000)<sup>7</sup> confirmed that, the lack of accurate information about sexuality and reproduction reflected a wider public policy

reluctance to provide sexual & reproductive health education in schools. This finding was supported by (Mohasseb, 2000)<sup>8</sup> who reported that students' knowledge regarding reproductive health were significantly improved after the implementation of the educational program, mean while after intervention the present study revealed that significant improvement of knowledge. Also (McKay, 2004)<sup>9</sup> who showed lack in awareness of all reproductive health matters among study subject, they stated also there was a need for evolving information, education, and communication strategies to focus on raising awareness on reproductive health and gender related issues. Also (Dejong and El-Khoury, 2006)<sup>10</sup> reported that, reproductive health knowledge scores improved significantly after intervention in conventional education and peer education group. It was evident from the results of present study (table 3) that two-thirds of girls had negative attitude

about reproductive health issues. Only (26.9%) of them had positive attitude about it. This negative attitude may be attributed to lack of girls' knowledge about reproductive health issues, also may be related to lack of implementation of an effective educational programs about reproductive health. This finding was supported by (Al-Naghshabandi and Abdel-Kader, 2004)<sup>11</sup> stated that the effective and long term programs such as peer education, school and community-based safe motherhood interventions could improve the adolescents' knowledge, which positively affects attitude and behavior change, and increase the utilization of maternal services, hence improving maternal outcome. Also (Gupta *et al.*, 2004)<sup>12</sup> confirmed that the students in the study group showed a positive and permissive attitude towards reproductive health education and there was a drop in risky sexual behavior following the intervention. Similarity (Parwej *et al.*,

(2005)<sup>13</sup> reported that there was a lack of current information concerning attitudes of adolescents regarding menstruation. This finding was contraindicated (Ehlers *et al.*, 2000)<sup>14</sup> who found positive attitudes among study subjects regarding contraceptive methods. Also (Mba *et al.*, 2007)<sup>15</sup> reported that, about two-thirds of the adolescents had a positive attitude towards modern contraceptive methods and intended to use them in the future.

The results of the present study (table 4) indicated that, there was highly significant relation between girls' total knowledge and total attitude, This finding was supported by (Houston *et al.* (2006)<sup>16</sup> who study Korean University students' knowledge and attitudes toward breastfeeding, found a significant relation between the students' knowledge and their attitudes.

The finding of current study (table 5) illustrated that there was a highly significant relation between the type of

colleges and girls total knowledge, this may be reflect that the majority of practical colleges students were more knowledgeable regarding reproductive health issues than theoretical colleges students. This may be attributed to the educational curriculum in practical colleges that played a major role in covering this area of knowledge.

Moreover, highly significant relations between girls' knowledge, and their mothers' level of education. This finding was supported by (Sadghipour *et al.*, 2006)<sup>6</sup> who stated that mother education seemed to affect their daughter's knowledge regarding reproductive health. This finding was in contrast to the finding of study that was done by (kang *et al.*, 2005)<sup>17</sup> reported that, Information received from parents and family members was often fragmented and superficial, and provided no detailed understanding of the events of puberty.

Moreover, there is no significant relation between number of family members and girls' total knowledge. This finding contraindicated (Lamada 2004)<sup>18</sup> who found that, poor knowledge score of adolescent girls increased with the largest family size. It was evident from the results of present study (table 6), there was highly statistical significant relation between girls' total attitude and socio-demographic characteristics such as residence, different study branches ( and mother education) .This finding was supported by (Inandi *et al.*, 2003)<sup>19</sup> mentioned that, an association was found between gender, residential area, parents' education and sibling number with the reproductive health knowledge and attitude score.

## CONCLUSION

It can be concluded from the results of this study sample that inadequate knowledge and 67% of girls had negative attitude about reproductive health issue.

This inadequacy of knowledge and negative attitude may be related to insufficient information offered in the education, limited role of the mass media and cultural taboo.

Improvement of knowledge and attitude of girls after providing them with reproductive health information educational guide and boklet .

## RECOMMENDATIONS

Suggested developing reproductive health awareness programs targeted to adolescents on large sample size, in different schools to highlight this issue.

## REFERNCES

- 1- Mishra A, Levitt-Dayal M. Improving adolescent reproductive health Knowledge and outcomes through NGO youth-Friendly Services, the Center of Development and Population Activities. India: 2003. 1-22.
- 2- AbouEl-yazed EA. Concerns and needs of adolescent as expressed by Themselves and their caring adults in Alexandria, Unpublished Master Degree Thesis, Community Health Nursing Department, Faculty of Nursing Alexandria University, 2006.151.
- 3- Galal SB, Hamad S, and Hassan N. Self-Reported Adolescents' Health and

- Gender: An Egyptian Study Eastern Mediterranean Health Journal. 2001;7(4) pp. 617-24.
- 4- Hennink M, Rana, Iqbal R. Knowledge of Personal and Sexual Development Amongst Young People in Pakistan. Opportunities and Choices Working Paper. 2004. No. 12
  - 5- Jaffer YA, Afifi M, Al-Ajmi F, Alouhaishi K. Knowledge, Attitudes and Practices of Secondary-School Pupils in Oman: II. Reproductive Health, East Mediterranean Health Journal. 2006;12(1-2): pp. 50-60.
  - 6- Sadghipour HR, Kazemzadeh RS, Rezaeie M. Reproductive Health Knowledge, attitude and Practices of Iranian and Afghan Men in Tehran Province, Eastern Mediterranean Health Journal. 2006;12 (6), pp. 862-71.
  - 7- World Health Organization A Literature Review on the Growth and development of Adolescent Girls, Switzerland:WHO; 2000. p. 23.
  - 8- Mohasseb S. Reproductive Health and Women's Rights. Article Review, Cairo: Ain Shams University, 2000; pp. 1-36.
  - 9- McKay A. Adolescent sexual and reproductive Health in Canada, the Canadian Journal of Human Sexuality. 2004;13 (2) pp. 67-80.
  - 10- Dejong J, El-Khoury G. Reproductive Health of Arab Young People, British Medical Journal. 2006;333:.849-51.
  - 11- Al-naghshabandi E, Abdel-Kader W. Effect of an educational Program about reproductive Health on Knowledge and Attitude of Adolescent Saudi Girls, Alexandria Scientific Nursing Journals, 2004;3(2) 21-32.
  - 12- Gupta N, Mathur AK, Singh MP, Saxena NC. Reproductive Health Awareness of School-Going, Unmarried, Rural Adolescents. Indian Journal of Pediatrics. 2004;71(9): 797-801
  - 13- Parwej S, Kumar R, Walia I, Aggarwal AK. Reproductive Health Education Intervention Trial, Indian Journal of Pediatrics. 2005;72(4): pp. 287-91.
  - 14- Ehlers VJ, Maja T, Sellers E, Gololo M. Adolescent Mothers' Utilization of Reproductive Health Services in the Gauteng Province of the Republic of South Africa. 2000;23: pp. 43-53.
  - 15- Mba CI, Obi SN, Ozumba BC. The Impact of Health Education on Reproductive Health Knowledge among Adolescents in a Rural Nigerian Community. Journal of Obstetrics & Gynecology. 2007;27(5): 513-7.
  - 16- Houston AM, Abraham A, Huang ZD, Angelo LJ. Knowledge, Attitudes, and Consequences of Menstrual Health in Urban Adolescent Females, Journal of Pediatrics and Adolescents Gynecology. 2006;19(4). 271-5.
  - 17- Kang NM, Song Y, Im EO. Korean University Students' Knowledge and Attitudes toward Breastfeeding: a Questionnaire Survey, Journal of Nursing Studies. 2005;42(8): pp. 863-70.
  - 18- Lamada S. Knowledge, Attitude, and Practice of Reproductive Health among Adolescent Girls Unpublished Doctoral Degree Thesis, Faculty of Nursing Alexandria University. 2004;.24.
  - 19- Inandi T, Tosun A, Guraksin A. Reproductive Health: Knowledge and opinions of University students in Erzurum, Turkey. Journal of Health Care. 2003;8(4): 177-84.