

Effect of Premarital Orientation Program Regarding Sexual and Reproductive Health: A step to Increase Rural Adolescents' Female Awareness

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Abstract

Background: The awareness of human rights in reproductive health and the lack of adequate warning may owing to many hazards. One of the best times for preparing for these problems is pre-marriage. **Aim:** This study aimed to evaluate the effects of premarital orientation program on the female adolescent's awareness about sexual and reproductive health. **Design:** A quasi- experimental, pre-test and post-test one-group only design was utilized in this study. **Setting:** this study was conducted at the international conference hall of the Fayoum University. **Sample:** A purposive sample of 180 female adolescents living in rural villages at Fayoum governorate, planning and coming to marriage were recruited in this study. **Data collection tool:** Data were collected by an interview questionnaire used in two stages of pre and post program implementation. **Results:** the current study findings illustrated that the total mean score of correct answers was significantly increased among participants after receiving program. **Conclusion & recommendations:** Premarital orientation program was p.0.001 successful in attaining its aim of positively changing the knowledge of participant's female adolescent. So recommend to eestablish continuous educational training program among health care providers responsible on premarital counseling clinics in rural health center about adolescent's reproductive and sexual health issues.

Keywords: *Premarital Orientation, Sexual, Reproductive Health & Rural Adolescents.*

Introduction

Adolescent sexual and reproductive health refers to physical and emotional wellbeing it includes the ability to remain free from unwanted pregnancy, STIs, unsafe abortion and also all forms of sexual violence and coercion. One of the most basic aspects of life is reproductive health (RH). Yet, due to cultural and political sensitivities, especially in low-income communities, In public policy debates, they frequently receive little consideration (WHO, 2014). Adolescence is described as the period of life between the ages of 10-19 by the World Health Organization (WHO). This period requires development from secondary sex (puberty) characteristics to complete sexual reproductive maturity. Every year, approximately 11 % of all births all over the world, sixteen million girls aged 15-19 give birth, 95 % of these births occur in developing countries (United Nations Population Division, 2011). Egypt had the highest percentage of girls who are married and childbearing between (15-19) years reaches 14%, particularly in rural areas (14 %). Egyptians generally believe that once they are married, young people don't need to worry about RH problems. This notion is rooted in cultural beliefs and long-standing sexuality

and reproduction taboos that need to be examined in order to protect health (Muhammad & Mamdouh 2012).

In fulfilling their sexual and reproductive health needs, adolescent (10-19 years of age) around the world face enormous challenges and in adequate access to knowledge and resources for health. For people, couples and families, sexual and reproductive health (SRH) is important. Is important to maintain healthy reproduction, greater interaction between partners should be done in order to make healthier sexual decisions and to participate in the social development of their countries. (Chuang & Chen 2015). Despite the high risks that countries face because of their negligence, adolescent sexual and reproductive health (ASRH) has traditionally been ignored. Its issues, including gender discrimination, abortion, unplanned pregnancies, polygamy, early marriage, female genital mutilation, repeated pregnancies, STIs, are some of the challenges encountered among adolescents across the world. The most critical factors hindering their health care are the in accessibility to suitable health care, education and communication. (UNICEF, 2010) & (Vamos, et al., 2020)

Premarital care (PMC) promotes the health and wellbeing of a woman and her partner before marriage and pregnancy; it is considered as the primary health care method for marriage and conception planning for couples; it can recognise and alter medical, behavioural, and other known health risk factors that influencing outcomes of pregnancy (Chuang & Chen 2015).

One of the ideal resources used to improve awareness, skills and motivation for individuals to make healthy lifestyle choices, particularly when properly targeted is health education. Female adolescent group in Egypt need to be informed with more information on their reproductive health and access to resources before having the first child, according to (Beamish 2010). A considerable percentage of primary maternity and child health care providers need basic premarital therapy training.

Although information on reproductive health, counselling and the provision of services have been recognized for decades as necessary programs for adults and have become increasingly available, the availability of such programs has more recently been endorsed for adolescents. (UNFPA, 2010) A smaller number of studies were conducted to determine the effect of youth intervention in health education in Egypt (Bastani, 2010). The importance of premarital education has been emphasized by many researchers. Egyptian female adolescents currently receive little accurate health and sexual information, making them more prone to violence, accidental pregnancy, coercion and sexually transmitted infections (Rezaeyan & Morteza 2017). Finally, healthcare providers are very well positioned to impact and maintain service access for those who will work to ensure that early and personalized maternal services are given to young pregnant women to resolve their unique concerns and high risk. In addition to developing programs to encourage a healthier lifestyle and also engaging in teaching workshops focusing on specific aspects of reproductive and sexual health.

Study significance

The National Council for Childhood and Motherhood (2014) confirmed that adolescent marriage, especially (rural girls) under 18 years of age, can be vulnerable to many problems and challenges in reproductive and sexual health, such as initiation of sexual activity while missing adequate knowledge and skills, higher risk of early childbearing, unintended pregnancy, sexually transmitted infections (Muhammad & Mamdouh 2012). The provision of information and services is limited by numerous political, economic and sociocultural factors; for this community, especially in rural communities such as the

governorate of Fayoum. The future of every culture is represented by adolescent girls. Better education and public health interventions can be highly beneficial for their health and wellbeing. The researchers find that this study offers an opportunity to address and meet the needs of adolescent females about reproductive and sexual health issues.

Study aim:

Aim of this study was:

To evaluate the effect of premarital orientation program on the female adolescents awareness regarding sexual and reproductive health.

Research hypothesis:

Total post-test score of female adolescent's awareness level regarding premarital sexual and reproductive health would be significantly higher than pretest.

Material and methods.

Research design:

A quasi- experimental, pre-test and post-test one-group only design was utilized in this study.

Setting:

This study implemented in the international conference hall of the Fayoum University, Fayoum Governorate

Sample:

A purposive samples of 180 adolescent's female were included in this study according to the following criteria:

- Age group 15-19 years
- living in rural villages at Fayoum governorate
- Planning and coming to marriage.
- Agree to participate in the study
- Attended the conference
- Never attended any orientation program regarding reproductive or sexual health
- Have a telephone number for subsequent follow up communication

Data collection tools:

A structured interviewing schedule: it designed to assess the participant's awareness about reproductive and sexual health issues based on a review of literature and similar studies conducted elsewhere. This questionnaire included two sections.

Part 1: participant's socio-demographic characteristics related data: including (age, religion, level of education, residence and housing condition).

Part 2: participant's reproductive and sexual health related knowledge (pretest and post- test): it consisted of 20 close ended questions to assess the participant's knowledge regarding sexual issues of marital life (definition of marriage, sexual health, sexual relation and its stages, hymen, positions of sexual relation, first night of penetration and its common types of problems and hygienic care

measures, essential factors to get pregnancy). It used at two interval (pre and post-test)

Scoring system: a score of '1' assigned for each correct answer and a score of 'zero' assigned for wrong answer. The maximum score is when the respondents obtain 20 grades which represents 100% and categorized into two levels as following: satisfactory $\geq 50\%$, unsatisfactory $\leq 50\%$.

Part 3: Follow up assessment data: it includes one close end question and 2 open end questions to assess the health problems that encountered among adolescent females after marriage and its early management of each

The content validity of the tool was valid by reviewing the tool by five specialists in Obstetrics and Gynecological Nursing and Community Health Nursing field

Procedure:

- A scientific seminar was organized by Al-Fayoum University represented in Faculty of Nursing in collaboration with community development associations at Al-Fayoum governorate and associated with the Ministry of Social Solidarity
- An official approval was obtained before the study was conducted from the official sponsors of the scientific seminar [Vice President for Community Services at Al-Fayoum University]
- The study was conducted through the following phases:

Assessment phase

- During which pre-interventional evaluation was carried out after receiving verbal consent from the participant, using the structured questionnaire to test the needs and awareness of the participant on the previously described subjects of sexuality and reproductive health issues in Arabic language. It lasting nearly 15 minutes for the questionnaire to be completed.
- To test the reliability and applicability of the questionnaire, a pilot study was executed on 10 percent of the study's participant (18 participants) and the required modifications were made accordingly. those pilot participants were included in the study sample

Implementation phase

- Interventional education comprised of a full day (8 hours) seminar covering 4 sessions lectured by the researchers, including related material on sexual and reproductive issues.
- The scientific lectures divided into four sessions each one lasting approximately 1 hour.
- Queries and a panel discussion (2 hours) after all lectures were encouraged by the researchers team

- The topics presented during the lectures were an outline of sexual & reproductive health including (reproductive organs physiology, sexual relation and its stages, sexual intercourse positions, characteristics of healthy marital sexual relation, first night of penetration and its common types of problems, hygienic care measures, characteristics of fertile period, essential factors to get pregnancy, family planning methods, genital tract infections and sexual transmitted disease types, causes, signs and symptoms, complications and its preventive measures
- The researcher was used different teaching methods such as audio - visual aids to further guide of the participant's during the sessions (figures and models, videos) in addition to a booklet given to each participants at the end of the sessions that prepared in a clear Arabic language containing a sufficient knowledge about the previous mentioned topics.

Evaluation phase:

The effectiveness of the program was evaluated immediately after completing the sessions using the same pretest questionnaire (part 2) as a post-test for all participants.

Follow up phase:

This phase conducted after marriage for girls accordingly by contacting them via telephone call to assess the reproductive health problems and for referral if needed and early management as, urinary tract infection, genital tract infections, sexual health problems, as well as problems related to delaying pregnancy .etc.

Ethical consideration:

Prior to the study's conduct an official permission and consent from the dean of the Faculty of Nursing, as well as from the official sponsors of the scientific seminar [Vice President for Community Services at Fayoum University] were obtained. Before inclusion in the study, informed consent was obtained from every participant. Participant's data were dealt with highly confidentiality and anonymity to ensure their privacy. Only the researchers and the participants were accessible with details.

Statistical analysis:

The data was coded for entry and tested using the Social Sciences Statistical Software Package (SPSS version 18.0). Percentages and frequencies forms of descriptive statistics, data was presented. Variables of the interval and ratio were provided in the form of mean and standard deviations and checked by t-test participants. Person's r was used for correlation checking. When ($p < 0.05$), the significance level was selected.

Results:**Table (1): Distribution of demographic characteristics among studied participants (No. 180)**

Items	No.	%
Age/years		
Range	16-19 years	
Mean+SD	16.8 ± 4.8	
Religion		
Muslim	142	78.9
Christian	38	21.1
Type of family		
Nuclear family	112	62.2
Extended family	68	37.8
Level of education		
Illiterate	42	28.3
Read and write	39	26.7
Primary education	27	15
Secondary education	72	30
Higher education	0	0

Table (2): Participant's knowledge regarding the marital sexuality matters (N.180)

TOPICS	Pre intervention				Post intervention				P-value
	Correct		Incorrect		Correct		Incorrect		
	No.	%	No.	%	No.	%	No.	%	
Definition of reproductive health	12	6.7	168	93.3	142	78.9	38	21.1	0.001*
The reproductive organs	23	12.8	157	87.2	126	70	54	30	
Definition of sexual relation / intercourse	57	31.7	123	68.3	167	92.8	13	7.2	
Characteristics of healthy marital sexual relation	11	6.1	169	93.9	154	85.6	26	14.4	
Positions of sexual intercourse	13	7.2	167	92.8	163	90.6	17	9.4	
Sexual intercourse related hygiene	8	4.4	172	95.6	148	82.2	32	17.8	
Common reproductive health problems after marriage	19	10.6	161	89.4	112	62.2	68	37.8	
Preventive measures and care of reproductive health problems after marriage	9	5	171	95	136	75.6	44	24.4	
Total mean +SD score of correct answer	19.4 ± 7.1				134.5 ± 12.4				

Statistically significant at $p < 0.05$

Table (3): Participant's knowledge regarding fertility and contraceptive methods

TOPICS	Pre intervention				Post intervention				P-value
	Correct		Incorrect		Correct		Incorrect		
	No.	%	No.	%	No.	%	No.	%	
Reproduction and fertility information									0.033
• Definition of fertility	22	12.2	158	87.8	128	71.1	52	28.9	
• Physiology of reproduction	18	10	162	90	109	60.6	71	39.4	
• Knowledge of the fertile Period	29	16.1	151	83.9	171	95	9	5	
• Essential factors to get pregnancy	25	13.9	155	86.1	159	88.3	21	11.7	
Total mean +SD of correct answer	21.2 ± 6.4				151.3 ± 9.8				
Family planning									0.002
• Definition of family planning /birth spacing	14	7.8	166	92.2	112	62.2	68	37.8	
• Common methods of family planning	26	14.4	154	85.6	124	68.9	56	31.1	
• Advantages & disadvantages of family planning	17	9.4	163	90.6	111	61.7	69	38.3	
Total Mean +SD score of correct answer	20.2 ± 3.4				133.5 ± 11.4				

Statistically significant at $p < 0.05$

Table (4): Knowledge of the studied participants regarding RTIs/STDs

TOPICS	Pre intervention				Post intervention				P-value
	Correct		Incorrect		Correct		Incorrect		
	No.	%	No.	%	No.	%	No.	%	
Definition of GTI/STDs	15	8.3	165	91.7	134	74.4	46	25.6	0.001
Common types	4	2.2	176	97.8	116	64.4	64	35.6	
causes of GTI/STDs	7	3.9	173	96.1	109	60.6	71	39.4	
Routes of transmission	17	9.4	163	90.6	123	68.3	57	31.7	
Signs & symptoms	9	5	171	95	98	54.4	82	45.6	
Complications	3	1.7	177	98.3	107	59.4	73	40.6	
Preventive measures	8	4.4	172	95.6	147	81.7	33	18.3	
Total mean \pmSD score of correct answers	7.3 \pm 3.4				121.6 \pm 8.4				

Statistically significant at $p < 0.05$

Table (5): Participant’s knowledge regarding premarital screening and tests

TOPICS	Pre intervention				Post intervention				p-value
	Correct		Incorrect		Correct		Incorrect		
	No.	%	No.	%	No.	%	No.	%	
Concept of Premarital screening and tests	15	8.3	165	91.7	168	93.3	12	6.7	0.004
Importance of Premarital screening and tests	28	15.6	152	84.4	156	86.7	24	13.3	
Components of Premarital screening	6	3.3	174	96.7	159	88.3	21	11.7	
Suitable Timing of Premarital screening and tests	34	18.9	146	81.1	162	90	18	10	
Total Mean \pmSD score of correct answers	9.2 \pm 4.4				158.6 \pm 8.6				

Statistically significant at $p < 0.05$

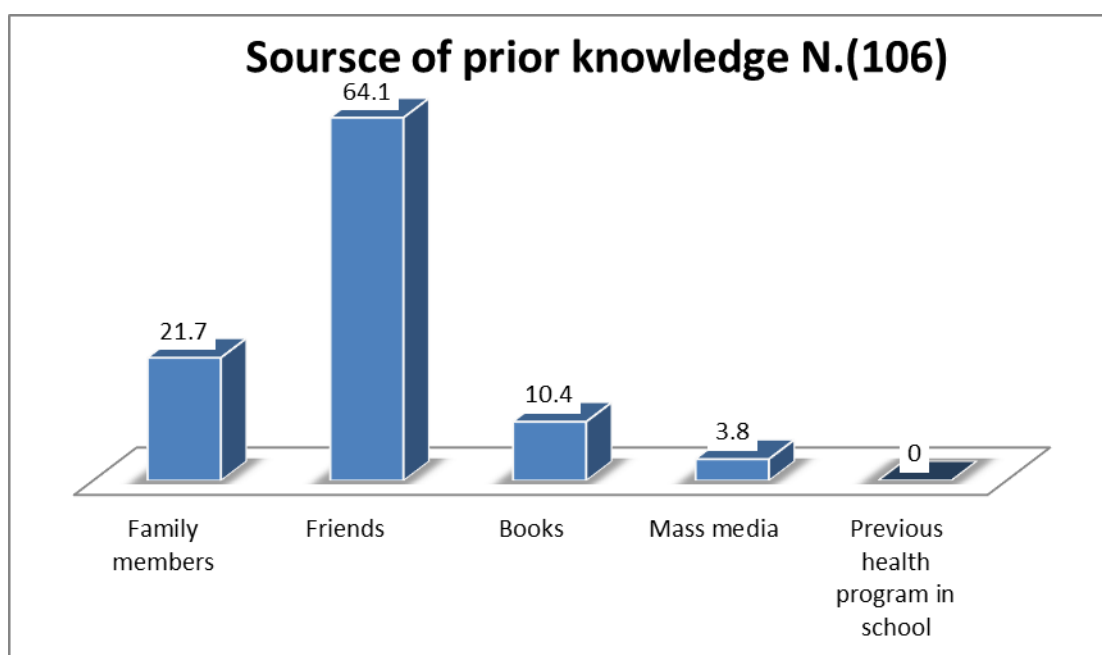


Figure (1): Most common source of prior knowledge regarding sexual and reproductive health among studied participants

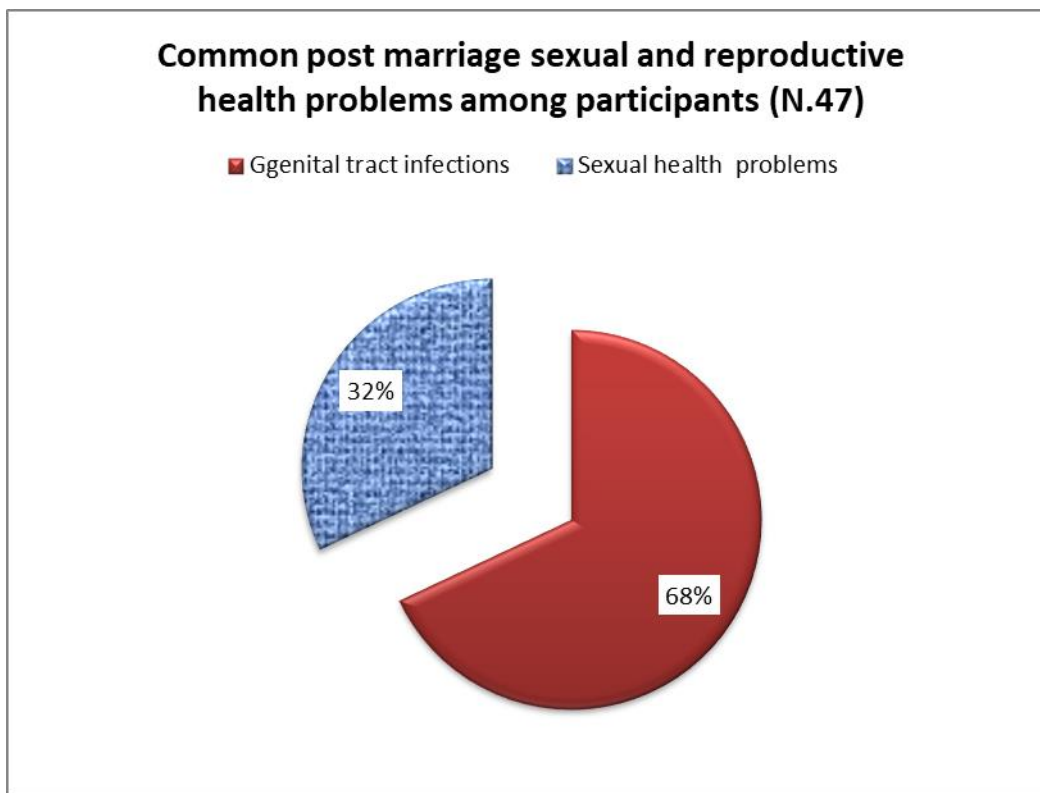


Figure (2): Common reported post marriage reproductive & sexual health problems among participants N. (47).

Table (6): Relationship between satisfactory pot-test level of knowledge and level of education among studied participants.

Socio-demographic characteristics	Satisfactory level of knowledge	
	X ²	P.
Level of education	18.5	0.003

Statistically significant at $p < 0.05$

Table (7): Correlation between common post marriage sexual reproductive health problems and age, level of education, pot-test satisfactory level of knowledge among studied participants

Items	Common post marriage sexual reproductive health problems	
	(r)	P.
Age	21.3	0.021*
Level of education	-16.01	0.003**
Satisfactory pot-test level of knowledge	- 28.27	0.001**

(r) Correlation coefficient

(*)Statistically significant at $p < 0.05$

(**) highly statistical significant at $p < 0.01$

Table (1): Clear up that the participants age ranged from 16 -20 years, more than two thirds were Muslim (78.9% , and 62.2% living with nuclear family. regarding education level nearly illiterate and read and write group were constitute the half of the sample and more(55.%).

Table (2): As regards knowledge of participants on marital sexual matters revealed that mean +SD score of participant’s correct answers were significantly increased after program implementation P-value (0.001).

Table (3): Illustrated that the Mean \pm SD score of participants correct answers regarding reproduction and fertility before program implementation was 121.2 ± 6.4 that after program this score significantly increased to the 151.3 ± 9.8 ($p=0.033$). moreover; the same table reported that mean \pm SD total score of participants knowledge regarding family planning methods were significantly increased in post intervention than pre intervention (133.5 ± 11.4 vs. 20.2 ± 3.4) p. value 0.002

Table (4): Concerning knowledge of the studied participants regarding RTIs/STDs showed that the participants total mean \pm SD score of correct answers were significantly increased in post intervention than pre intervention 7.3 ± 3.4 vs. 121.6 ± 8.4 p. value 0.001.

Table (5): Premarital screening knowledge of studied participants were significantly increased after receiving the program than before p. value (0.004), as well as their total mean \pm SD score of correct answers in pre intervention was 9.2 ± 4.4 changed to 158.6 ± 8.6 in post intervention

Figure (1): Demonstrated that the most common source of knowledge among studied participants who have a prior knowledge on sexual and reproductive health (58.9%) were their friends (64.1%), followed by their family members (21.7%).

Figure (2): Illustrates that nearly 47(26.0%) of total participants reported that they suffered from reproductive & sexual health problems after marriage mentioned in form of genital tract infections (68.0%) and sexual relation problems (32.0%).

Table (6): Clear up those individuals with an high educational levels were attained significantly higher score of satisfactory level of knowledge than those with lower educational levels, p. value 0.003.

Table (7): show that there were a significant positive correlation between the common post marriage sexual reproductive health problems that encountered among adolescents female and their age (p.0.021), while significant negative correlation was observed regarding level of education (p.0.003), and post-test level of knowledge (p. 0.001).

Discussion:

Worldwide, adolescents' reproductive and sexual wellbeing is a matter of great concern. Sexuality information is a fundamental need and right and a crucial but not adequate part of what young people require for good reproductive health, while studies, mostly from the U.S., have defined components of effective curriculum for sex education, such requirements can be difficult to meet in the short term for developing countries (United Nations Population Division, 2011). The study aim was to demonstrate the premarital orientation program influence on the

awareness of rural adolescent girls' knowledge and understanding of reproductive and sexual health. The gross inadequate of knowledge regarding reproductive health and sexual health among the participants was noticed in this report. In addition to the sensitive nature of the subjects, the gross inadequacy of the participants' awareness may be attributed to insufficient sexual and reproductive instructional content, resources and guidance in their societies. It is true that reproductive health education is not given due consideration in developed countries. Sexual wellbeing is viewed as a biomedical concept rather than an significant component of full wellbeing because of socio-cultural and economic variables. Our findings also reported that the studied participants knowledge regarding reproduction and fertility topics increase significantly after receiving the program p. value. 0.000.

Similar studies by (Rezaeyan & Morteza 2017). Showed that the level of awareness regarding reproductive health following program implementation was significantly increased with regard to changes in girls' understanding after premarital education in Iran. This is agreed with (Dhital et al., 2005). Study conducted in Dhahran conducted to assessing the structured educational program among adolescent students in enhancing school-going adolescents' awareness and attitude of on reproductive health. In addition to their results, the mean pre-test score of the experimental group infortion was low while was high for the control group (Kumi-Kyereme 's, 2014) research also aimed at evaluating the adolescent's KAP and gatekeepers on adolescent reproductive health issues in Mumbai, understanding the actions of adolescent's pursuing health. The sample size of 600 adolescents from both genders in the age group of 10-19 years will be surveyed similarly. The focus group discussion with different groups showed that among this demographic, awareness of reproductive health was very low. Aligned with these results another study findings revealed that mean score of awareness before and after training regarding reproductive health index, reproductive health and family planning were significantly different (P = 0.000). They further claimed that after the consultation program, the average reproductive health awareness scores were statistically significant.(P<0.001)(Taghinejad et al., 2013).

Online Fertility Awareness research by (Daniluk & Koer, 2015) found that the fertility and ART knowledge scores of participants increased significantly immediately following the intervention, as did their trust in their knowledge of fertility. The views of participants on the optimal and recent age for a woman or man to consider limiting the growth

of an infant. Six months later, however the beliefs and levels of awareness of the participants largely returned to their pre-intervention levels particularly for the men in the study.

Regards knowledge of the studied participants in term family planning/ contraceptive methods current study showed significant increase in correct answers after the implementation of the program p.value (0.002), this is agreed with study was conducted in Chandigarh among adolescent's female aged 15-19 years to evaluate the reproductive health educational package effectiveness in enhancing their knowledge. A research was carried out by (Rao, et al., 2008) in Uduppi district of Karnataka among adolescent girls aged 16-19 years to assess the health education effectiveness in improving reproductive health awareness. Their comprehension evaluated immediately after intervention showed a significant increase in information after intervention of $p < 0.01$ in contraception was observed.

On the other hand (Abd Alazeem et al., 2011) research, showed high awareness scores in the pre-test attributed to the participant's medical condition of the participants. Similar results of relevant researches have been reported by (Coonrod et al., 2009) & (Gharaibeh & Mater, 2009). That could be due to participant's educational level variations who are medical students and participants in our study who were rural peasants, most of whom were illiterate and read and write. Starting in 1988, In Uganda, a study on adolescent fertility was conducted.

This study presents data from household and individual questionnaires gathered for the third phase in August 1990 in the Mabel Area. It was found that most reported having received reproductive health information, but few can describe a woman's secure period in the menstrual cycle. An additional research by (Halpern et al., 2008) presents findings of the multi-year web-based trial Teen Network project in two urban areas for health education: Nairobi, Kenya. Most of the measures revealed a significant difference in post-test "web" and "comparison" situations between students; However, Just about half of the changes in the direction were expected. Future intervention must focus on the decisive search for health information by teenagers in private circumstances where they have unmet health needs. Lastly current findings reported that friend was the main source of knowledge about reproductive and sexual health. This disagreed with a recent study by (Vamos et al, 2018) to examine the sexual and reproductive health (SRH) literacy experiences of college students, specific to the use of contraceptives and STI prevention. Their findings showed that the Internet was the most frequently accessed source of

SRH data. Participants addressed knowledge comprehension facilitators (e.g. use of visuals) and obstacles (e.g. medical jargon); and personal lifestyle, family / friendly guidance, symptoms, and sexual partners as evaluation variables. By connecting with friends / providers and finding healthcare, participants used data. The results, however, were not linear and not mutually exclusive, reflecting the interaction of skills in health literacy. (Vamos, et al, 2018).

Conclusions:

Baseding on this study results, the following conclusion emphasized that:

Adolescent's female were lacked appropriate knowledge on sexual and reproductive health in pre-program phase. Meanwhile; after implementation of the program significant improvement was found in knowledge and awareness on reproductive and sexual health after using public seminar orientation program so it was effective in attaining its aim of positively shifting the knowledge of those adolescent.

Recommendations:

In light of the current study findings, the following recommendations are suggested

Establish collaborative communication channels among concerned community authorities to develop strategies to overcome the barriers of utilization reproductive health services. , Establish separate specialized "Adolescent reproductive health in a variety health care setting". Establish continuous educational training program among health care providers responsible on premarital counseling clinics in rural health center about adolescent's reproductive and sexual health issues.

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