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Impact of School-Based Sex Education on Beliefs, Risk Perception, and Self-Assurance of Teens

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Abstract: *Young people receive inadequate preparation for their sexual lives. This leaves them potentially vulnerable to coercion, abuse and exploitation, unsafe information about sexual health and sexually transmitted infections (STIs), including HIV.*

Aim: *The current study was carried out to assess the effect of a school-based sex education on beliefs, risk perceptions, and self-assurance of teens.*

Setting: *The study was conducted at the following schools: Hussen El-ghorap Prep school and Elsayida Khadiga Prep school Minoufia governorate.*

Design:-*A quasi experimental design was used.*

Sample*: A convenience sample of (34) adolescents who were available at the time of data collection and meet the criteria for sample selection were included. .*

Tools: *Two tools were developed by the researchers based on review of related literature.*

Tool one: *Adolescents' structured interviewing questionnaire. It consisted of three parts:*

Part 1: *Socio-demographic structured questionnaire: it includes adolescent' name, age, religion, residence, and gender.*

Part 2: *Teens' knowledge structured questionnaire regarding sexual health.*

Part 3: *Teens' beliefs structured questionnaire regarding sexual health:*

Tool two: *Likert scale assessment structured questionnaire regarding teens self-assurance. It consisted of 11 statements to assess adolescents' ability to demonstrate knowledge and practice for the maintenance of their sexual health and their self-assurance.*

Results: *there wete highly statistical significant differences between studied subjects in pre post and follow up test regarding their knowledge about sex education and sexual health. Also, there were significant statistical differences between studied subjects in pre, post and follow up test in their beliefs, their risk perception and self-assurance regarding sexual health.*

Conclusion: *It was concluded that, adolescent students had significant improvement in their knowledge and skills regarding maintenance of their sexual health. Also, they had better risk perception, beliefs and promotion in their self- assurance. The study recommended that sex education programs should be significantly utilized for all teens at schools.*

Keywords: *sex education, sexual health, beliefs, risk perception, and self-assurance.*

I. Introduction

Preparing children and young people for the transition to adulthood has always been one of humanity's great challenges, with human sexual health, sexuality, relationship at its core. Today, in a world with AIDS, how we meet this challenge is our most important opportunity in breaking the trajectory of the epidemic. "Also, in facing advanced technology for acquiring knowledge, children and young people in urgent need for safe information, correct believe, and enhanced self-assured and confidence[1].

Few young people receive adequate preparation for their sexual lives. His leaves them potentially vulnerable to coercion, abuse and exploitation, unsafe information about sexual health and sexually transmitted infections (STIs), including HIV [2]. Many young people approach adulthood faced with conflicting and confusing messages about sexuality and gender. This is often exacerbated by embarrassment, silence and disapproval of open discussion of sexual matters by adults, including parents and teachers, at the very time when it is most needed effective sexuality education can provide young people with age-appropriate, culturally relevant and scientifically accurate information. It includes structured opportunities for young people to explore their attitudes and values, and to practice the decision-making and other life skills they will need to be able to make informed choices about their sexual lives [3].

Comprehensive Sexual Education (CSE) emphasizes a holistic approach to human development and sexual health. UNESCO identifies the primary goal of sexual education as that "children and young people become equipped with the knowledge, skills and values to make responsible choices about their sexual health

and social relationships in a world affected by HIV." and uncorrected and un safe information [4]. The International Planned Parenthood Federation (IPPF) defines a rights-based approach to CSE (comprehensive sex education) as "to equip young people with the knowledge, skills, attitudes and values they need to determine and enjoy their sexuality –physically and emotionally, individually and in relationships."[5] Both definitions view 'sexuality' within the context of emotional and social development, recognizing that the provision of information alone is not enough because most youth are enrolled in school for many years before they initiate sex and when they initiate sex, schools have the potential for reducing adolescents' sexual risk-taking. Involvement in and attachment to school and plans to attend higher education are all related to less sexual risk-taking. Some school design programs to educate normal sex and maintaining of sexual health for students and this is lead to reduce risk behavior [6] .School sexuality education programs have been studied as a means to prevent sexual behavior that puts adolescents at risk for a sexually transmitted disease. Sex Education Intervention Programs would reduce at-risk sexual behaviors of school-going adolescents aged 13-19 years. Young people need to be given the opportunity to acquire essential life skills and develop positive attitudes and values regarding sexual health [7].

Sexual health information; encourage a better understanding of relationships; will improve negotiation skills for sexual encounters; and teach that to avoid sexual risk. Research indicated a better influence of Peer educators regarding sex which reported positive changes in sexual knowledge and changes towards more liberal attitudes, and believed. Further, a positive impact on students' confidence in relationships and on their sexual behavior [8]. Evidence has shown that comprehensive sexual education (CSE) that is scientifically accurate, culturally and age-appropriate, gender-sensitive and life skills-based can provide young people with the safe knowledge, skills and efficacy to make informed decisions about their sexual health and sex, also about lifestyle based on their enhanced self-assured. [9].

Indeed, the primary goal of sexual education is that children and young people become equipped with the knowledge, skills and values to make responsible choices about their sexual health and social relationships in a world affected by HIV and unsafe knowledge [10]. Consequently, the present study was conducted to assess the effect of a school-based comprehensive sex education on beliefs, risk perceptions, and self-assurance of adolescents.

1.1 Aim of the Study:

The current study was carried out to assess the effect of a school-based sex education on beliefs, risk perceptions, and self-assurance of teens.

1. 2. Research Hypothesis:

1. Adolescents who received a school-based sex education will experienced better improvement in their knowledge and skills regarding maintenance of their sexual health.
2. Adolescents who received a school-based sex education will experienced promotion in their beliefs, risk perception and their self-assurance regarding sexual health.

II. Methods

2. 1. Research Design:

A quasi experimental design pre-post and follow up-test was utilized to examine the effect of a school-based sex education on beliefs, risk perceptions, and self-assurance of teens.

2. 2.Research Setting:

The study was conducted at the following schools: Hussen El-ghorap Prep school and
Elsayida Khadiga Prep school Minoufia governorate.

2. 3.Sample

A convenient sample was included. All female adolescents who were available at the time of data collection and meet the criteria for sample selection were included and they consisted of (34) adolescents.

Inclusion criteria

-Female adolescents whose age 13-< 18 years old.
- Female adolescents who not received any previous sex education.

2.4. Tools of Data Collection:

To achieve the aim of the study, data collected by the following tools based on review of related literature.

I- Interview Questionnaire: Adolescents' knowledge structured questionnaire. It consisted of three parts.

Part one: Socio-demographic structured questionnaire: it includes adolescent' name, age, religion, residence, and gender.

Part two: Teens' knowledge structured questionnaire regarding sexual health

Part three: Teens' beliefs structured questionnaire regarding sexual health

Teens' knowledge structured questionnaire regarding sexual health scoring system:

Items	Score
correct	2
incorrect	1

Teens' beliefs structured questionnaire regarding sexual health scoring system:

Items	Score
Yes	2
No	1

II- Likert scale assessment questionnaire regarding teens' self-assurance. It consisted of 11 statements to assess adolescents' ability to demonstrate knowledge and practice regarding maintenance of their sexual health and feeling of their positive abilities to enhance sense of self-assurance.

Likert scale assessment questionnaire Scoring system:

Items	Score
agree	3
Some what agree	2
disagree	1

2.4.1 Reliability of the tools

The internal consistency of the questionnaires was calculated using **Cronbach's alpha coefficients**. Test-retest was used. The **Cronbach's alpha** of the questionnaire was 0.82 indicate good reliability.

2.4.2 Validity of the tools

The tools were tested for content validity by jury of five experts in the field of Pediatric nursing and psychiatric nursing to ascertain relevance and completeness.

III. Data Collection Methods

Data was collected at the first of December 2015 to the end of May 2016.

Approval:

- An official letters were issued from the Faculty of Nursing Menoufia University, and send to the directors of the selected schools with an explanation of the aim of the study to get their permission.
- Parents' oral and written consent were obtained before starting collecting data regarding agreement for their children to participate in the study.

Ethical Consideration

The study was conducted with careful attention to ethical standards of research and rights of participants. Verbal and written consent were taken from parents of the studied adolescents to participate in this study. During the initial interview, the purpose of the study and the procedures were explained to the subjects. The subjects were assured that all information would be confidential and used for the research only to assure the confidentiality of the participants. The participation in the study was voluntary and that they can withdraw from the study at any time and can refuse to participate in the study. It would be explained that there were no costs to participate in the study.

3.2 Procedure of Data Collection:

- At the beginning the researcher visited the selected schools and took their permission to collect the required data.
- **Tools developments:** tools were developed by the researcher after reviewing the literature to collect the necessary data from teens. Tool validity test was done through five experts and thenecessary modifications were done. **Cronbach's alphatest** was used to measure the internal consistency reliability of the questionnaire (0.78).
- **Pilot study:** A pilot study was carried out on 10% of adolescent children to test the content of the questionnaire as well as to estimate the time needed for data collection and the necessary modifications was done. Those who shared in the pilot study were included in the study sample.
- **Implementation of the program:** This study hypothesized that adolescents who received a school-based comprehensive sex education will experienced better improvement in their beliefs and risk perception regarding sexual health. This was achieved through three major phases. (Assessment phase, implementing phase and follow up phase).

1-Assessment phase:

Primarily, the purpose of the study was explained and the consent for participation was obtained. Also, the subjects informed about the schedule time and place according to schools' schedule time. Participants (34 subjects) were divided into six groups, three groups from each school setting with four to five students in a group. Pretest was done during this phase.

2- Implementing phase:

Structured sex education sessions concerning promotion of sexual health, risk perception of sexual transmitted diseases and unwanted sexual behavior, were conducted. Also, promotion correction of teens' beliefs also enhancement of their self-assurance, were emphasized within three weeks with a number of two session per week (60 minutes for each session) to estimate 6 educational sessions for each group.

During the educational session's recent knowledge and skills regarding sexual health maintenance were provided through power point presentation and video assisted teaching. Demonstration and re-demonstration r was also applied for all studied subjects with the emphasis on promotion of their normative believes, risk perception and self- assurance through provision of correct and safe sexual information. Also, increase awareness of teens regarding unwanted sexual behaviors and dangerous of sexual transmitted diseases and methods of transmission and prevention. Enhancement of students' self-assurance and self-esteem was encouraged through applying and demonstrating sexual health related skills such as (personal hygiene care especially during and after menstrual cycle, breast examination, sexual organ care, safe removal of body hair, wearing of suitable Braha at suitable time, and healthy practices while using and changing bad during monthly period). Revision weekly was done to ascertain prober maintenance of knowledge and related skills. All subjects allowed feel free to ask any question and encouraged for provision of healthy sexual knowledge and skills for other students at school.

3- Follow-up phase:

After completion of planned educational sessions follow up test and reassessment were conducted. This was achieved within 6 weeks with two sessions per week. Revision of utilized knowledge and practices was done during the first follow up session for each group and reassessment test for students' normal beliefs, risk perception and self-assurance regarding sex education and sexual health was done in the second follow –up session..

3. 3 Statistical analysis:

The data collected were tabulated & analyzed by SPSS (Statistical Package for the social Science Software) statistical package version 20 on IBM compatible computer. Quantitative data were expressed as mean & standard deviation (X±SD) and analyzed by applying student t-test for normally distributed variables. Qualitative data were expressed as number and percentage .The correlation between total score of knowledge and safety practices with subjects' demographic data was calculated using Pearson's correlation coefficient. The level of significant was adopted at $p<0.05$.

IV. Results

Table (1): illustrates socio-demographic characteristics of the studied sample. As shown in this table, the highest percentage of the studied subjects were in the age group (13 >16) and (79.4%) from the all subjects were Muslims. Regarding place of residence (47.1%) and (52.9%) were from urban and rural areas respectively.

Table (2, 3, and 4): clarified teens' knowledge regarding sex education and sexual health and their total knowledge score. As noticed from these tables the mean total knowledge score were (16.58± 2.17, 23.17 ± 1.17, and 22.68 ± 1.42) respectively. So, there was highly statistical significant differences between studied subjects in pre, post and follow up test regarding their knowledge about sex education and sexual health.

Table (5.6): teens' beliefs and total beliefs score regarding sexual health in pre, post and follow up test. It was estimated that, the mean total beliefs score were (6.88 ± .80 7.20 ± .91 and 6.85 ±.82) respectively. There was a significant statistical difference between studied subjects in pre, post and follow up test regarding their beliefs about sexual health.

Table (7, 8): teens' risk perception and total risk perception score regarding sexual health in pre, post and follow up test. As shown in these tables the mean total risk perception score were (9.23 ± 1.32, 12.52 ± 2.58, and 13.44 ± 2.04) respectively. There was a significant statistical difference between studied subjects in pre, post and follow up test regarding their risk perception about sexual health

Table (9, 10, and11): teens' self- assurance and total self-assurance score of teen's safe feelings and maintenance of sexual health. It is obvious from these tables that, the mean total self-assurance score were (18.58 ± 4.04, 30.08 ± 3.64, and 30.70 ± 4.26) respectively. Highly significant statistical differences were found

between studied sample in their pre, post and follow up test regarding their self- assurance about safe feelings and maintenance of sexual health.

Table (12): Correlation between total knowledge, total beliefs, total risk perception, total self-assurance with age and place of residence. This table clarified that, highly significant statistical differences were found between total knowledge with age and residence. Also, a highly significant statistical difference was found between total beliefs and age. Whereas non-significant statistical differences were found between total beliefs with residence. Also, between total risk perceptions, total self-assurance with age and place of residence.

Figure (1): correlation between total beliefs and total knowledge score regarding sexual health. It was obvious from this figure that, non-significant statistical difference was found between total beliefs and total knowledge score where r equal (.188^{ns}).

Figure (2): correlation between total risk perception and total knowledge score regarding sexual health. This figure estimated that, a highly significant statistical difference was found between total risk perception and total knowledge score regarding sexual health where r equal (.724**).

Figure (3): correlation between total self-assurance and total knowledge score of sexual health. This figure clarified that, a highly significant statistical difference was found between total self-assurance and total knowledge score regarding sexual health where r equal (.838**).

Table (1): Socio-demographic data of studded sample:

Socio-demographic	No= 34	%
Age		
13>16	22	64.7
16>18	12	35.3
Total	**34**	**100.0**
Religion		
Muslim	27	79.4
Christian	7	20.6
Total	34	100
Residence		
Urban	16	47.1
Rural	18	52.9
Total	34	100

Table (2): Teens' knowledge regarding sex education in pre, post and follow up test:

Teens' knowledge About sex education	Pre		Post		χ^2	P - value	Follow-up		χ^2	P -value
	No: 34	%	No 34	%			No 34	%		
Meaning of sex					26.37 (HS)	< .001			17.2	< .001
Correct	15	44.1%	34	100.0%			31	91.2%		
Incorrect	19	55.9%	0	.0%			3	8.8%		
Meaning of sexual. Health					10.02	<.05			6.07	<.05
Correct	9	26.5%	22	64.7%			19	55.9%		
Incorrect	25	73.5%	12	35.3%			15	44.1%		
Meaning. of sex. education					53.68 (HS)	< .001			39.76	< .001
Correct	4	11.8%	34	100.0%			30	88.2%		
Incorrect	30	88.2%	0	.0%			4	11.8%		
Are you received sex education before					68.0 (HS)	< .001			53.68 (HS)	< .001
Correct	0	.0%	34	100.0%			30	88.2%		
Incorrect	34	100.0%	0	.0%			4	11.8%		
Who give you sex education.					2.07^{ns}	>0.05			2.06 Ns	>0.05
School	2	5.9%	0	.0%			0	.0%		
Friends	2	5.9%	2	5.9%			2	5.9%		
Others	30	88.2%	32	94.1%			32	94.1%		

P1: p-value for statistical difference between pre and posttest.

P2: p-value for statistical difference between posttest and follow up test.

Table (3): Teens' knowledge regarding sexual health in pre, post and follow up test:

Teens' knowledge About sexual health	Pre		Post		χ^2	P -value	Follow-up		χ^2	P -value
	No 34	%	No 34	%			No 34	%		
Female reproductive system consists of										< .001
Correct	6	17.6%	34	100.0%	47.60 (HS)	< .001	32	94.1%	40.3 (HS)	
Incorrect	28	82.4%	0	0%						
Male reproductive system consists of						< .001				< .001
Correct	5	14.7%	30	88.2%	36.79 (HS)		30	88.2%	36.79 (HS)	
Incorrect	29	85.3%	4	11.8%			4	11.8%		
Healthy steps of sexual organs hygiene .						< .001				< .001
correct	14	41.2%	34	100.0%	28.33 (HS)		31	91.2%	18.98 (HS)	
incorrect	20	58,8%	0	0%			3	8.8 %		
Menstruation means:					22.67 (HS)	< .001			22.67 (HS)	< .001
Correct	17	50.0%	34	100.0%			34	100.0%		
Incorrect	17	50.0%	0	.0%			0	0.0%		
How pregnancy occurs?					14.57 (HS)	< .001			8.99	< .01
Correct	22	64.7%	34	100.0%			32	94.1%		
Incorrect	12	35.3%	0	0.0%			2	5.9%		

P1: p-value for statistical difference between pre and posttest.
P2: p-value for statistical difference between posttest and follow up test.

Table (4): Total knowledge score regarding teens' sex education and sexual health in pre, post and follow up test:

Mean & SD	Pre	Post	Follow-up	MANOVA test	P -value
Mean & SD **X ± SD**	16.58± 2.17	**23.17 ± 1.17**	**22.68 ± 1.42**	**61.73$^{(HS)}$**	**< .001**

Table (5): teens' beliefs regarding sexual health in pre post and follow up test:

teens' normative believe about sexual health	Pre		Post		χ^2	P - value	Follow-up		χ^2	P -value
	No 34	%	No 34	%			No 34	%		
Do you wear Brahe?					18.28 (HS)	< .001			26.87 (HS)	< .001
Yes	13	38.2%	30	88.2%			33	97.1%		
No	21	61.8%	4	11.8%			1	2.9%		
Do you feel ashamed from wearing Brahe?					37.09 (HS)	< .001			37.09 (HS)	< .001
Yes	24	70.6%	0	.0%			0	.0%		
No	10	29.4%	34	100.0%			34	100.0%		
Are your mother learn you how to clean your body with sweet?									3.2 Ns	>0.05
Yes	2	5.9%	5	14.7%			7	20.6%		
No	32	94.1%	29	85.3%			27	79.4%		
If answer with no who learn you?					2.15^{ns}	>0.05			1.50 Ns	>0.05
Friend	12	35.3%	18	52.9%			17	50.0%		
Others	22	64.7%	16	47.1%			17	50.0%		
Are your mother speak with you about marriage?					6.35$^{(S)}$	<.05			8.83 (S)	< .01
Yes	4	11.8%	13	38.2%			15	44.1%		
No	30	88.2%	21	61.8%			19	55.9%		

P1: p-value for statistical difference between pre and posttest.
P2: p-value for statistical difference between posttest and follow up test.

Table (6): Total beliefs score of teens' regarding sexual health in pre, post and follow up test:

Mean & SD	Pre	Post	Follow-up	MANOVA test	P -value
Mean & SD **X ± SD**	6.85 ± 0.80	7.20 ± 0.91	6.88 ±0.82	7.52$^{(S)}$	<.05

Table (7): Teens' risk perception regarding sexual health in pre, post and follow up test:

Items	Pre		Post		χ^2	P -value	Follow-up		χ^2	P -value
	No 34	%	No 34	%			No 34	%		
Do you now sexual transmitted diseases?					60.44 (HS)	< .001			49.51 (HS)	< .001
Yes	2	5.9%	34	100.0%			31	91.2%		
No	32	94.1%	0	.0%			3	8.8%		
Signs and symptoms of sexually transmitted diseases.					46.27 (HS)	< .001			34.00 (HS)	< .001
Correct	4	11.8%	32	94.1%			28	82.4%		
Incorrect	30	88.2%	2	5.9%			6	17.6%		
Prevention and treatment of sexual transmitted diseases					46.28 (HS)	< .001			36.7 (HS)	< .001
Correct	4	11.8%	32	94.1%			29	85.3%		
Incorrect	30	88.2%	2	5.9%			5	14.7%		
Tests for having HIV.					18.13 (HS)	< .001			2.94 Ns	>0.05
Correct	2	5.9%	18	52.9%			18	52.9%		
Incorrect	32	94.1%	16	47.1%			16	47.1%		

P1: p-value for statistical difference between pre and posttest.
P2: p-value for statistical difference between posttest and follow up test.

Table (8): total risk perception score of teens regarding sexual health in pre, post and follow up test:

Mean & SD	Pre	Post	Follow-up	MANOVA test	P -value
Mean & SD **X ± SD**	**9.23 ± 1.32**	**12.52 ± 2.58**	**13.44 ± 2.04**	**39.51$^{(HS)}$**	**< .001**

Table (9): Likert scale self- assurance structured questionnaire regarding teen's safe feeling regarding sexual health:

Items	Pre		Post		χ^2	P -value	Follow-up		χ^2	P -value
	No 34	%	No 34	%			No 34	%		
Sex education is against our culture and religion.					6.35 (S)	<0.05			6.15 (S)	<0.05
Agree	4	11.8%	0	.0%			0	.0%		
Somewhat agree	16	47.1%	12	35.3%			15	44.1%		
Disagree	14	41.2%	22	64.7%			19	55.9%		
Sex education promotes normative values and behaviors					46.47 (HS)	< 0.001			37.7 (HS)	< 0.001
Agree	4	11.8%	32	94.1%			29	85.3%		
Somewhat agree	21	61.8%	2	5.9%			5	14.7%		
Disagree	9	26.5%	0	.0%			0	.0%		
Sex education promotes safe correct knowledge					46.39	< 0.001			40.16	< 0.001
Agree	4	11.8%	32	94.1%			30	88.2%		
Somewhat agree	24	70.6%	2	5.9%			4	11.8%		
Disagree	6	17.6%	0	.0%			0	.0%		
Feel more confident in maintaining my sexual health as a mature human.					55.20 (HS)	< 0.001			47.54	< 0.001
Agree	2	5.9%	22	64.7%			15	44.1%		
Somewhat agree	4	11.8%	12	35.3%			17	50.0%		
Disagree	28	82.4%	0	.0%			2	5.9%		
feel skillful in educating sexual health to other children					48.67 (HS)	< 0.001			45.34 (HS)	< 0.001
Agree	0	.0%	18	52.9%			15	44.1%		
Somewhat agree	4	11.8%	16	47.1%			15	44.1%		
Disagree	30	88.2%	0	.0%			4	11.8%		
I am now able to identify and avoid risky behavior					28.86 (HS)	< 0.001			22.117 a	< 0.001
Agree	2	5.9%	18	52.9%			15	44.1%		
Somewhat agree	11	32.4%	14	41.2%			15	44.1%		
Disagree	21	61.8%	2	5.9%			4	11.8%		

Table (10): total self-assurance score regarding teen's safe feelings and maintenance of sexual health:

Mean & SD	Pre	Post	Follow-up	MANOVA test	P -value
Mean & SD **X ± SD**	**18.58 ± 4.04**	**30.08 ± 3.64**	**30.70 ± 4.26**	**99.5$^{(HS)}$**	**< .001**

Table (11): Correlation between Total knowledge, total beliefs, total risk perception, total self-assurance with age and residence

Items	Age		Residence	
	r	P -value	r	P -value
Total knowledge	0.831**	< 0.001	0.479**	< 0.01
total beliefs	0.496**	<0.01	0.083^{ns}	>0.05
total risk perception	-0.039-^{ns}	>0.05	0.080^{ns}	>0.05
total self-assurance	0.323^{ns}	>0.05	-0.275-^{ns}	>0.05

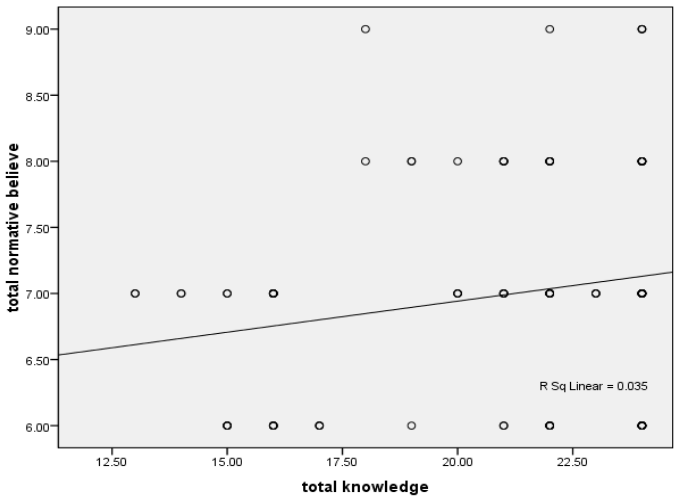

Figure (1): Correlation between total beliefs and total Knowledge score of teens regarding sexual health.

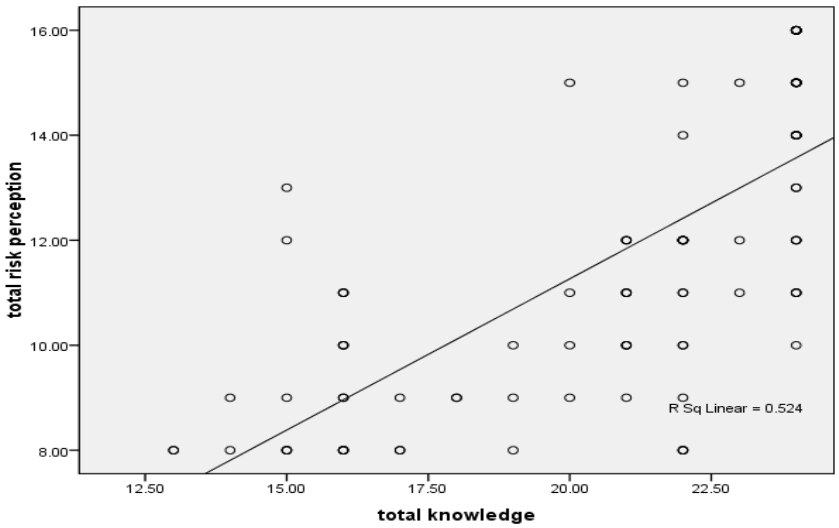

Figure (2): Correlation between total risk perception total Knowledge score of teens regarding sexual health.

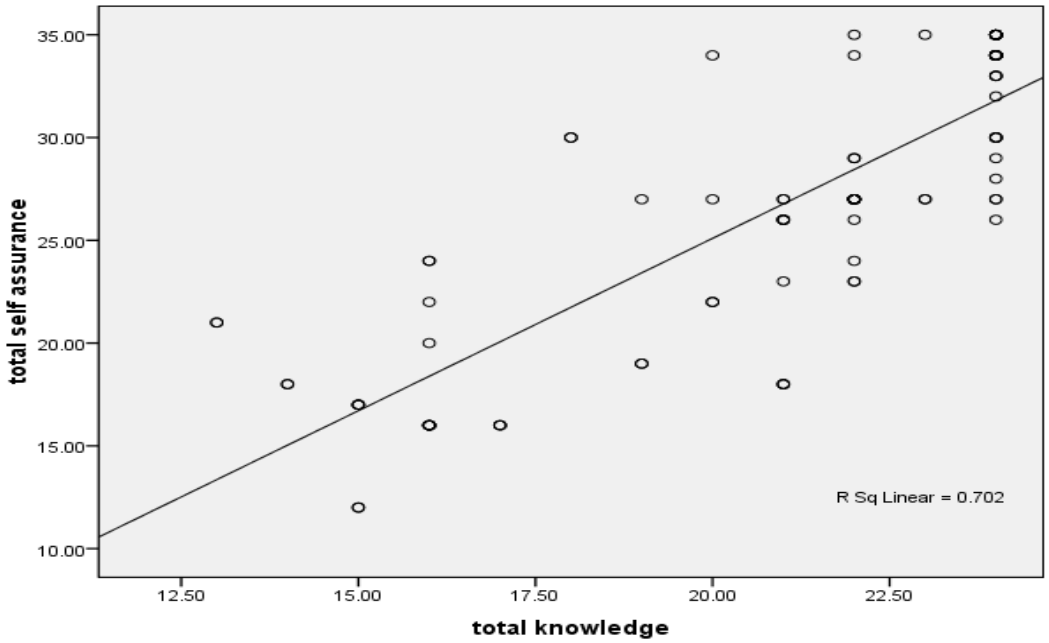

Figure (3): Correlation between total self-assurance and total Knowledge score of teens regarding sexual health

V. Discussion

Young people and or adolescents aged 12–24 have shortage knowledge and information regarding sexual health. School-based sex education are logistically well-suited to educate teens about normative beliefs, risk perception, and self-assured. The intervention has been promoted to increase healthy sexual awareness, provision of HIV-related knowledge and shape safer sexual behaviors among this vulnerable group. Consequently, it is recommended that sex education programs should be frequently used to enhance the previous qualities. For this reason, the present study aims to assess the effect of a school-based sex education on normative beliefs, risk perceptions, and self-assured of teens.

The result of the present study covered four main areas as follows; firstly, Socio-demographic characteristic of the studied subjects. Secondly, Teens' knowledge regarding sex education and sexual health. Thirdly, teens' beliefs and total normative believe score regarding sexual health. Fourthly, teens' risk perception and total risk perception score regarding sexual health in pre, post and follow up test. Fifthly, teens' self-assurance and total self-assurance score of teen's safe feelings and maintenance of sexual health.

In relation to socio- demographic characteristics of the studied subjects, the highest percentage of the them were in the age group (13>16).This result was consistent with [12] who studied School-Based Sex Education and indicated that, Study participants were mostly youth;13-16 however, age was not restricted for inclusion in the review and participant ages ranged from 9 to 38 across included studies.

Regarding, teens' knowledge about sex education and sexual health tables (2, 3, and 4). As noticed from these tables all subjects in the studied sample did not receive previous sex education intervention. Also, highly statistical significant differences were found between studied subjects in pre, post and follow up test. This result is in line with [13] who studied the relationship between source of sexual information and sexual behavior among female adolescents and found that, the majority of subjects couldn't receive knowledge and information about sex education. Also, This results come in agreement with [14] who mentioned that, majority school-based sex education interventions haven't any knowledge concerning sex education through school and a great improvement in subjects' knowledge was estimated in post and follow up test respectively.

Concerning, teens' beliefs regarding sexual health in pre, post and follow up test tables (5&6). It was estimated that, a significant statistical difference between studied subjects in pre, post and follow up test regarding their normative believe about sexual health. This result consistent with [15] who studied teacher-led school HIV prevention programs on adolescent sexual behavior and indicated that, the majority of adolescents not wearing Brahe that due to shaming and have negative beliefs about having sex education respectively. Also, this result supported by [16] who revealed that, adults and youth show significant improvement in their sexual believes in posttest and consistently strive to identify and set priorities for sexual and reproductive health needs and to propose concrete actions. So, teaching young adolescents about sex and sexual health considers a vital aspects of their lives.

Considering teens' risk perception structured questionnaire and total risk perception score regarding sexual health in pre, post and follow up test table (7, 8). As shown in these tables there was a significant statistical difference between studied subjects in pre, post and follow up test regarding their risk perception about sexual health. The current result comes in agreement with [17] who shows that, nearly 15 percent of the 56,000 annual new cases of HIV infections in the United States occurred in youth ages 13 through 24 in 2006 and an estimated decrease was found during recent years in this percentage due to applying of school based sex education programs and hazards prevention continuously.

Regarding teens' self- assurance about safe feelings and maintenance of sexual health table (9, 10, and11). It is obvious from these tables that, a highly significant statistical difference was found between studied sample in their pre, post and follow up test regarding their self- assurance about safe feelings and maintenance of sexual health. The present result comes in agreement with [18] who showed that, Research into what makes sex and relationship education effective shows that, sex education encourages learning new preventive and healthy skills that consider enjoyable by pupils. Pupils take part in a structured activity in which they can draw on previous knowledge to develop more understanding; practice their social and personal skills; consider their beliefs and attitudes about different topics; reflect on their new learning; plan and shape future action. Indeed, all of these students' qualities reflect prober self-assurance skills

Concerning Correlation between total knowledge, total beliefs, total risk perception, total self-assurance with age and residence table (12). The present study clarified that, highly significant statistical differences were found between total knowledge with age and residence. Also, a highly significant statistical difference was found between total beliefs and age. Whereas non-significant statistical differences were found between total normative believe with residence. Also, non-significant statistical differences were found between total risk perceptions, total self-assurance with age and place of residence. These results in line with [19] and [20] who found that, The right and responsibility of every individual regardless of age to make responsible sexual choices and avoid high risk behaviors were reported.

Also, [21] reported that. Because some behaviors can change quickly as a result of an intervention but other behaviors or outcomes change more slowly, only results measured for six months or longer were included for significant relationship between students' beliefs and their age

Considering correlation between total beliefs total risk perception, and total self-assurance with total knowledge score regarding sexual health figure (1,2,3). It was obvious from these figures that, non-significant statistical difference was found between total beliefs and total knowledge score where. A highly significant statistical difference was found between total risk perception and total knowledge score regarding sexual health. A highly significant statistical difference was found between total self-assurance and total knowledge score regarding sexual health where respectively.

The present results consistent with [22], [23] and [24] who showed that, Significant improvement in Students' self-assurance and self-esteem was found where students learn to recognize their own feelings, how feelings can influence behaviors and how to carefully consider their own impulses before choosing to act or not act on their acquired knowledge and skills. Also, Students learn to recognize the qualities of healthy practices,

how to and how to correct and or avoid aspects of unhealthy practices. Students learn how to discontinue unhealthy and unsafe practices by gaining prober knowledge and skills.

We believe comprehensive sex education should be part of comprehensive health education. It must be age appropriate, medically accurate and enable students to develop the necessary skills to make healthy and responsible decisions throughout their lives. Sexual health education addresses factors that affect sexual behavior, such as self-esteem self- assurance and perceived social norms, and helps young people develop a positive view of sexuality in the context of family and community values as a beliefs and risk perception.

VI. Conclusion

It was concluded that, adolescent students had significant improvement in their knowledge and skills regarding maintenance of their sexual health. Also, they had better risk perception, beliefs and promotion in their self-assurance.

VII. Recommendations

1. First and foremost, communities should implement curriculum-based sex and HIV. education programs in their schools, clinics, and youth-serving agencies.
2. Schools and youth-serving organizations should provide adequate time in the classroom or in their organizations for these programs.
3. Organizations should encourage and facilitate research to develop and evaluate comprehensive sex education programs that may be even more effective.

Limitation of study:

Unfortunately, the frequent students' absenteeism from schools and the shorter free time for students during school day. Also, the refusal of many parents to allow their children participate in the study leads us to face many difficulties to increase sample size.

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