Effectiveness of an Instructional Program Concerning premarital screening of sexual transmitted disease on Student's Knowledge at Baghdad University

فاعلية برنامج ارشادي عن فحوصات ما قبل الزواج للأمراض المنقولة جنسيا على معارف الطلبة في جامعة بغداد

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الخلاصة:
الهدف : تهدف الدراسة الحالية الى تحديد فاعلية البرنامج الارشادي عن فحوصات ما قبل الزواج للأمراض المنقولة جنسيا على معارف الطلبة في جامعة بغداد وفحص العلاقة بين تأثير البرنامج الارشادي بفحوصات ما قبل الزواج للأمراض المنقولة جنسيا على معارف الطلبة و بعض المتغيرات المدروسة. والدراسة افترضت بأن هناك فروق بمعارف طلبة الجامعة حول فحوصات ما قبل الزواج قبل وبعد تنفيذ البرنامج الارشادي
المنهجية: أجريت دراسة شبه تجريبية (باستخدام اسلوب اختبار قبلي بعدي) في ست كليات في جامعة بغداد وهي كلية تربيه ابن رشد، كلية العلوم السياسية ، كلية القانون ، كلية الآداب، كلية الاعلام و كلية اللغات. أجريت هذه الدراسة خلال الفترة من ١ نيسان ٢٠١٧ إلى ٥ ايار ٢٠١٨. تم اخذ عينة عشوائية متعددة الطبقات من (٤٠) طالب لكل من المجموعة الضابطة ومجموعة الدراسة في كليات جامعة بغداد. تم استخدام استمارة استبيان كأداة لجمع البيانات. تم تنفيذ الاستبيان وصحة المحتوى من خلال سبعة خبراء. تم استخدام التحليلات الإحصائية الوصفية والاستنتاجية لتحليل البيانات.
النتائج : أظهرت نتائج الدراسة تحسن ايجابي و دلالة احصائية ملحوظه في معارف طلبة جامعة بغداد حول فحوصات ما قبل الزواج للأمراض المنقولة جنسيا
التوصيات: اجراء برامج ارشادية متكررة حول فحوصات ما قبل الزواج للأمراض المنقولة جنسيا في المدارس الثانوية والكليات لتحسين مستوى معارفهم .
الكلمات المفتاحية: برنامج ارشادي ،معارف، الأمراض المنقولة جنسيا، طلبة جامعة.

Abstract:
Objectives: To identify the effectiveness of instructional program concerning premarital screening of sexual transmitted disease on student's knowledge at Baghdad University and examine the relationship between students' knowledge and certain studied variables. And hypothesis for this study; There is a difference in university student's knowledge toward premarital screening between pre and posttests of instructional program.

Methodology: A quasi-experimental design (pretest-posttest approach) was conducted at six colleges and its college of education ibn rushd, college of political science, college of law, college of literature, college of media and college of language. This study was conducted during the period of 1st April 2017 to 5th May 2018. Multistage stratified random sample of (40) students for both group control and study group at Baghdad University colleges. A questionnaire, was used as a tool of data collection. The questionnaire and content validity was carried out through the seven experts. Descriptive and inferential statistical analyses were used to analyze the data.
Results: in general the results show a statistical significant improvement of university student's knowledge concerning premarital screening of sexual transmitted diseases
Recommendations: Conducting frequent health education programs about PMS among students in high schools and universities to improve their knowledge toward sexual transmitted diseases
Key Words: Instructional Program, Knowledge, Sexual Transmitted Diseases , University Students.

Introduction:

Sexually transmitted diseases (STDs) are considered a serious health problem worldwide, affecting especially young people between 15 and 24 years. And the World Health Organization estimates that one out of 20 teenagers contracts an STD each year[(1)].

Sexually transmitted Diseases (STDs) is a main public health problem worldwide, affecting quality of life and causing serious morbidity and mortality. STDs have a direct impact on reproductive and child health through infertility, cancers and pregnancy complications, and they have an indirect impact through their role in facilitating sexual transmission of human immunodeficiency virus (HIV) and thus they also have an impact on community and individual economies. More than a million STDs are acquired every day [(2)].

Premarital screening (PMS) is one of a universal activity, the diagnosis, treat and prevention of undetected diseases or disorders and prevent transmission of disease to couple and their offspring are the aims of premarital screening. PMS is considered as approach of primary preventive for new couples who intended to marriage and have child[(3)].

One of Basic health services for primary health care in Iraq is Premarital screening and control transmission disease like hepatitis B, C and human immunodeficiency virus "HIV" that is very dangerous for pregnant woman may cause fetal death or congenital anomalies [(4)].

Health education is the best tools that provide and deliver the individuals with the skills, knowledge and motivation to make and create healthier lifestyle selection or choices. Though, there is a huge lack or deficiency in knowledge regarding of reproductive health even among educated people. The reproductive health facility or services is falling behind recent attitudes and demands of university students, university students still have limited awareness about reproductive health and premarital knowledge. An initial step for the design of appropriate health education strategy is to know how much the target group knows about health problems and what their knowledge towards this important and essential element of health care [(3)].

Current study aims to measure the effectiveness of instructional program knowledge of single male and female students in University of Baghdad (UOB) toward PMS of STDs, furthermore to determine students' knowledge scores and to improve their knowledge about PMS of ATDs through an instructional program.

A lot of young male and female go into marriage with deficient knowledge on reproduction health, sexuality and contraceptive methods even among learned individuals. Today, education and care that given society is very in large of developing countries about growth and development of human genetics and their use in welfare and health. Mass media is best way to give information about genetics to people. When improve the peoples' knowledge about STDs will improve their understanding and cooperation which is capable of reducing marriages between carriers [(5)].

Methodology:

A quasi-experimental design (pretest-posttest approach) was conducted at six colleges and its college of education ibnrushd, college of political science, college of law, college of literature, college of media and college of language. This study was conducted during the period of 1st April 2017 to 5th May 2018. Multistage stratified random sample of (40) students for both group control and study group at Baghdad University colleges.A questionnaire, instructional booklet, guide booklet was used as a tool of data collection to fulfill with objective

of the study and it is consisted of three parts.The questionnaire and content validity was carried out through the eight experts. Descriptive and inferential statistical analyses were used to analyze the data. The questionnaire is comprised of three parts.

Part I: this part is consisted of (6) items which are focusing on the students' demographic characteristics of age, gender, , father's and mother's education, father's and mother's occupation and residence.

Part II: This part is about sources of knowledge about PMS of STDs.

Part III: This part is consisted of (7) main domain which are measuring the knowledge about PMS of STDs .Overall items included in this part are scored and rated as two items as one for 'Yes' (correct answer), zero for 'No' (incorrect answer), and 'I don't know' also given zero. Reliability of questionnaire is measure through the use pretest -posttest approach and computing of correlation coefficients (r=0.98). for the internal scale and content validity is determined through panel of experts. Data are collected through the use of the constructed questionnaire and the interview technique as a means of data collection. Descriptive and inferential statistical analyses were used to analyze the data. which includes frequency, percentage, mean of scores, grand mean score and relative sufficiency and inferential statistical data analysis approach which includes mean score ,T-test and analysis of variance (ANOVA) by using the statistical package of social science (SPSS) version (22)at (P-value ≤ 0.05). Assessments Intervals Scoring Scales: [L: Low (0.00 – 33.33)]; [M: Moderate (33.34 – 66.66)]; [H: High (66.67 – 100)].

Results:

Table (1): Distribution of the studied groups according to socio-demographical characteristics variables with comparisons significant

Socio-Demographical Characteristics variables	Classes	Study (N=40)		Control (N=40)		C.S. (*) P-value
		No.	%	No.	%	
Age group	21 - 22	30	75	30	75	C.C.=0.139 P=0.663 (NS)
	23 - 24	7	17.5	9	22.5	
	25 - 26	2	5	1	2.5	
	27 - 28	1	2.5	0	0	
Gender	Male	12	30	15	37.5	C.C.=0.079 P=0.478 (NS)
	Female	28	70	25	62.5	
Father's education	Don't read, don't write	1	2.5	2	5	C.C.=0.326 P=0.091 (NS)
	Read and write	6	15	1	2.5	
	Primary	5	12.5	1	2.5	
	Intermediate	6	15	6	15	
	Secondary	5	12.5	12	30	
	Institute and over	17	42.5	18	45	
Mother's education	Don't read, don't write	2	5	0	0	C.C.=0.219 P=0.544 (NS)
	Read and write	5	12.5	4	10	
	Primary	7	17.5	6	15	
	Intermediate	10	25	7	17.5	
	Secondary	7	17.5	11	27.5	
	Institute and over	9	22.5	12	30	
Father's occupation	Don't work, house wife	1	2.5	5	12.5	C.C.=0.252 P=0.144 (NS)
	Employee	17	42.5	10	25	
	Retired	7	17.5	11	27.5	
	Free work	15	37.5	14	35	
Mother's occupation	House wife	34	85	30	75	C.C.=0.125

	Employee	5	12.5	8	20	P=0.528 (NS)
	Free work	1	2.5	2	5	
Original residency	Urban	30	75	29	72.5	C.C.=0.191 P=0.555 (NS)
	Rural	1	2.5	2	5	
	Village	2	5	2	5	
	District	7	17.5	7	17.5	
Current residency	With family	36	90	31	77.5	C.C.=0.181 P=0.439 (NS)
	With relative	1	2.5	4	10	
	Internal section	2	5	3	7.5	
	Alone	1	2.5	2	5	

(*) NS: Non Sig. at P>0.05; Testing based on a contingency coefficient (C.C.) test

This table shows that the highest percentage (75%) in study and control group in age group (21-22) years, regarding to gender (70%) (62.5%) were 'female' respectively in study and control sample, regarding to father's education (42.5%) (54%) were 'Institute and over' respectively in study and control sample, regarding mother's education (25%) in study sample were 'intermediate' while (30%) were 'Institute and over' in control sample, regarding to father's occupation (42.4%) were 'Employee' in study sample while (35%) were 'free work', regarding to mother's occupation (85%) (75%) were 'house wife', respectively in study and control sample. regarding to original residency (75%) (72.5%) were live in 'urban' respectively in study and control sample, regarding current residency (90%) (77.5%) were' live with family'.

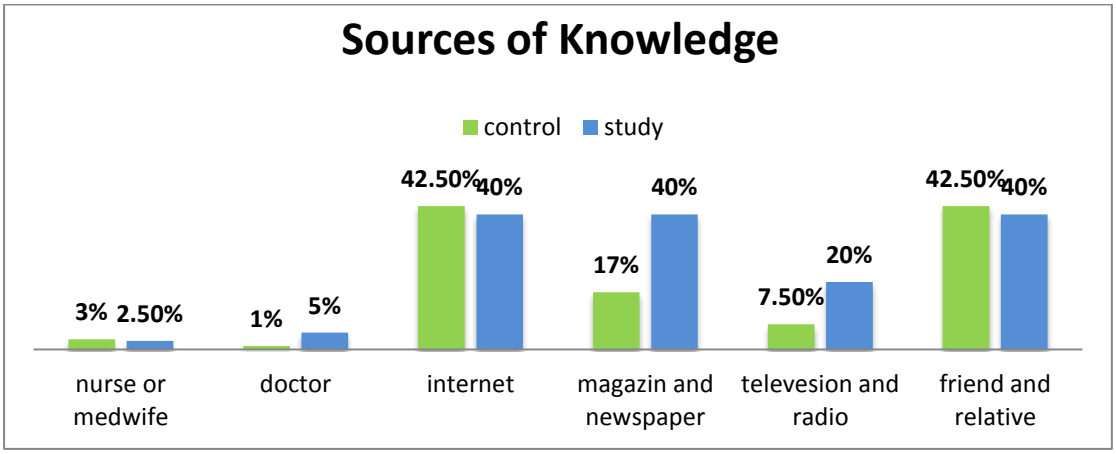

Figure (1): Percentage Distribution the Source of Knowledge about Premarital Screening of Sexual transmitted diseases for both study and control group television

Table (2): Distributions of Students According their Knowledge of Screening for Sexual Transmitted Diseases (Pre, and Post) Implementation of the Instructional Program

Knowledge of Sexual Transmitted Diseases Screening	Period	No	Study			Control			C.S.
			MS	RS%	Ass.	MS	RS%	Ass.	
Sexual Transmitted Diseases Include:									
Syphilis	Pre	40	0.28	28	L	0.32	32	L	NS
	Post	40	0.83	83	H	0.32	32	L	HS
Gonorrhea	Pre	40	0.18	18	L	0.18	18	L	NS
	Post	40	0.73	73	H	0.18	18	L	HS
Chlamydia	Pre	40	0.10	10	L	0.10	10	L	NS
	Post	40	0.73	73	H	0.10	10	L	HS
Trichomoniasis	Pre	40	0.33	33	L	0.43	43	M	NS
	Post	40	0.77	77	H	0.43	43	M	HS
Genital Herpes	Pre	40	0.28	28	L	0.40	40	M	NS
	Post	40	0.87	87	H	0.40	40	M	HS
Acquired Immunodeficiency Syndrome	Pre	40	0.25	25	L	0.25	25	L	NS
	Post	40	0.72	72	H	0.25	25	L	HS
Human Papillomavirus	Pre	40	0.33	33	L	0.40	40	M	NS
	Post	40	0.83	83	H	0.40	40	M	HS
Hepatitis B	Pre	40	0.30	30	L	0.55	55	M	NS
	Post	40	0.70	70	H	0.55	55	M	HS
Hepatitis C	Pre	40	0.35	35	M	0.52	52	M	NS
	Post	40	0.45	45	M	0.52	52	M	HS
Tuberculosis	Pre	40	0.72	72	H	0.92	92	H	NS
	Post	40	0.93	93	H	0.92	92	H	HS
Causes of sexually transmitted disease									
Virus	Pre	40	0.32	32	L	0.37	37	M	NS
	Post	40	0.62	62	H	0.37	37	M	HS
Bacteria	Pre	40	0.43	43	M	0.32	32	L	NS
	Post	40	0.48	48	M	0.32	32	L	HS
Fungus	Pre	40	0.67	67	M	0.60	60	M	NS
	Post	40	0.72	72	H	0.60	60	M	HS
Contaminated Food And Drink	Pre	40	0.75	75	H	0.80	80	H	NS
	Post	40	0.95	95	H	0.80	80	H	HS
Sexually transmitted diseases are introduced into the body by									
Vagina	Pre	40	0.42	42	M	0.60	60	M	NS
	Post	40	0.77	77	H	0.60	60	M	HS
Anus	Pre	40	0.37	37	M	0.58	58	M	NS
	Post	40	0.50	50	H	0.58	58	M	HS
Open Wound	Pre	40	0.28	28	L	0.47	47	M	NS
	Post	40	0.42	42	H	0.47	47	M	HS
Skin Ulcers	Pre	40	0.37	37	M	0.58	58	M	NS
	Post	40	0.63	63	M	0.58	58	M	HS
Mouth	Pre	40	0.78	78	H	0.67	67	M	NS
	Post	40	0.67	67	H	0.67	67	M	HS
Nose	Pre	40	0.48	48	M	0.53	53	M	NS
	Post	40	0.65	65	M	0.53	53	M	HS
sexually transmitted diseases can be									
Asymptomatic	Pre	40	0.45	45	M	0.63	63	M	NS
	Post	40	0.68	68	H	0.63	63	M	HS
Symptomatic	Pre	40	0.85	85	H	0.87	87	H	NS
	Post	40	0.97	97	H	0.87	87	H	HS

(*) HS: Highly Sig. at P<0.01; S: Sig. at P<0.05; NS: Non Sig. at P>0.05; Testing based on a contingency coefficient (C.C.) test. (#) multiple choice answers. Assessments Intervals Scoring Scales: [L: Low (0.00 – 33.33)]; [M: Moderate (33.34 – 66.66)]; [H: High (66.67 – 100)].

This table shows a summary statistics of knowledge related to premarital screening questionnaire's items concerning (Sexual Transmitted Diseases according to:

types, causes, how can be introduce to body and how can be?) along studied (Pre, and Post) periods due to applying educational program of knowledge part toward studied students in the studied groups with comparisons significant. Results of testing significant with reference of studied items concerning effectiveness of applying educational program were reported highly significant differences at P<0.01 toward impact of program through raising knowledge grades of studied respondents. In addition to that, and rather than testing significant are too sensitive to improvements that occurred for repeated measurements statistic, but the most of study group's items illustrated good improvements due to meaningful changes of assessments levels along pre-post periods of time.

Table (3): Distributions of students according their Knowledge of Screening for Sexual Transmitted Diseases according to(routes, signs and symptom and which STDs can be prevented by vaccine) (Pre, and Post)implementation of the Instructional Program

Knowledge of Screening for sexual transmitted diseases	Period	No	Study			Control			C.S.
			MS	RS%	Ass.	MS	RS%	Ass.	
What are routes of sexually transmitted disease									
sexual intercourse	Pre	40	0.70	70	H	0.68	68	H	NS
	Post	40	0.82	82	H	0.68	68	H	HS
blood transfusion from infected person to another person	Pre	40	0.63	63	M	0.60	60	M	NS
	Post	40	0.85	85	H	0.62	62	M	HS
Sharing needles and shaving kit	Pre	40	0.52	52	M	0.52	52	M	NS
	Post	40	0.68	68	H	0.52	52	M	HS
Transplacental	Pre	40	0.60	60	M	0.50	50	M	NS
	Post	40	0.80	80	H	0.50	50	M	HS
Breathing	Pre	40	0.60	60	M	0.65	65	M	NS
	Post	40	0.75	75	H	0.65	65	M	HS
Common signs and symptoms of sexually transmitted diseases									
Abdominal pain	Pre	40	0.25	25	L	0.42	42	M	NS
	Post	40	0.60	60	H	0.42	42	M	HS
Jaundice (yellowing of skin and eyes)	Pre	40	0.35	35	M	0.45	45	M	NS
	Post	40	0.52	52	M	0.45	45	M	HS
Itching in genital area and burn urination	Pre	40	0.40	40	M	0.55	55	M	NS
	Post	40	0.75	75	H	0.55	55	M	HS
Discharge from penis/ vulva	Pre	40	0.57	57	M	0.63	63	M	NS
	Post	40	0.87	87	H	0.63	63	M	HS
Genital ulcers	Pre	40	0.50	50	M	0.48	48	M	NS
	Post	40	0.70	70	H	0.48	48	M	HS
Diarrhea	Pre	40	0.70	70	H	0.55	55	M	NS
	Post	40	0.65	65	M	0.55	55	M	HS
Vomiting	Pre	40	0.65	65	M	0.43	43	M	NS
	Post	40	0.72	72	H	0.43	43	M	HS
Which sexually transmitted diseases that can be taken vaccine to prevent it									
Acquired Immunodeficiency Syndrome	Pre	40	0.18	18	L	0.58	58	M	NS
	Post	40	0.50	50	M	0.58	58	M	HS
Human papillomavirus	Pre	40	0.27	27	L	0.55	55	M	NS
	Post	40	0.65	65	M	0.55	55	M	HS
Hepatitis B	Pre	40	0.35	35	M	0.52	52	M	NS
	Post	40	0.65	65	M	0.52	52	M	HS

(*) **HS: Highly Sig. at P<0.01; S: Sig. at P<0.05; NS: Non Sig. at P>0.05; Testing based on a contingency coefficient (C.C.) test. (#) multiple choice answers. Assessments Intervals Scoring Scales: [L: Low (0.00 – 33.33)]; [M: Moderate (33.34 – 66.66)]; [H: High (66.67 – 100)].**

This table shows a summary statistics of knowledge related to premarital screening questionnaire's items concerning (Sexual Transmitted Diseases according to: routes, signs and symptom and which STDs can be prevented by vaccine) along studied (Pre, and Post) periods due to applying educational program of knowledge part toward studied students in the studied groups with comparisons significant. Results of testing significant with reference of studied items concerning effectiveness of applying educational program were reported highly significant differences at P<0.01 toward impact of program through raising knowledge grades of studied respondents. In addition to that, and rather than testing significant are too sensitive to improvements that occurred for repeated measurements statistic, but the most of study group's items illustrated good improvements due to meaningful changes of assessments levels along pre-post periods of time.

Table (4): Distributions of students according their Knowledge of Screening for Sexual Transmitted Diseases according to (Diagnosis and how can't be treated) (Pre, and Post)implementation of the Instructional Program

Knowledge of Screening for sexual transmitted diseases	Period	No	Study			Control			C.S.
			MS	RS%	Ass.	MS	RS%	Ass.	
sexually transmitted disease can be diagnosed by									
(TPRH) test and (VDRL) test to detect syphilis	Pre	40	0.18	18	L	0.05	5	L	NS
	Post	40	0.70	70	H	0.05	5	L	HS
Microscopic examination of pap smear from vagina, urethra, mouth and anus to detect gonorrhea	Pre	40	0.30	30	L	0.30	30	L	NS
	Post	40	0.63	63	H	0.30	30	L	HS
(NAATs) test for a sample of urine to detect infection (chlamydia)	Pre	40	0.18	18	L	0.10	10	L	NS
	Post	40	0.65	65	H	0.10	10	L	HS
pap smear from inside the cervix and vagina to detect infection (chlamydia)	Pre	40	0.18	18	L	0.15	15	L	NS
	Post	40	0.63	63	H	0.15	15	L	HS
Microscopic examination of pap smear for cervix to detect Trichomoniasis	Pre	40	0.15	15	L	0.13	13	L	NS
	Post	40	0.62	62	H	0.13	13	L	HS
HSV test to detect genital herpes	Pre	40	0.18	18	L	0.13	13	L	NS
	Post	40	0.62	62	M	0.13	13	L	HS
Take a biopsy of herpes sores in viral culture and then examine them under the microscope to detect genital herpes	Pre	40	0.15	15	L	0.08	7.5	L	NS
	Post	40	0.60	60	M	0.08	7.5	L	HS
HIV test to detect acquired immunodeficiency syndrome	Pre	40	0.20	20	L	0.10	10	L	NS
	Post	40	0.60	60	M	0.08	7.5	L	HS
HPV test to detect human papilloma virus	Pre	40	0.13	13	L	0.03	2.5	L	NS
	Post	40	0.70	70	H	0.03	2.5	L	HS
HBV test to detect hepatitis B	Pre	40	0.27	27	L	0.10	10	L	NS
	Post	40	0.75	75	H	0.10	10	L	HS
HCV test to detect hepatitis C	Pre	40	0.23	23	L	0.08	7.5	L	NS
	Post	40	0.75	75	H	0.08	7.5	L	HS
Which sexually transmitted diseases that cannot be treated									
Acquired Immunodeficiency Syndrome	Pre	40	0.77	77	H	0.77	77	H	NS
	Post	40	0.83	83	H	0.77	77	H	HS
Genital herpes	Pre	40	0.62	62	M	0.55	55	M	NS
	Post	40	0.60	60	M	0.55	55	M	HS

(*) HS: Highly Sig. at P<0.01; S: Sig. at P<0.05; NS: Non Sig. at P>0.05; Testing based on a contingency coefficient (C.C.) test. (#) multiple choice answers. Assessments Intervals Scoring Scales: [L: Low (0.00 – 33.33)]; [M: Moderate (33.34 – 66.66)]; [H: High (66.67 – 100).

This table shows a summary statistics of knowledge related to premarital screening questionnaire's items concerning (Sexual Transmitted Diseases according to: Diagnosis and how can't be treated) along studied (Pre, and Post) periods due to applying educational program of knowledge part toward studied students in the studied groups with comparisons significant. Results of testing significant with reference of studied items concerning effectiveness of applying educational program were reported highly significant differences at P<0.01 toward impact of program through raising knowledge grades of studied respondents. In addition to that, and rather than testing significant are too sensitive to improvements that occurred for repeated measurements statistic, but the most of study group's items illustrated good improvements due to meaningful changes of assessments levels along pre-post periods of time.

Table (5) : Distribution of Knowledge related to Premarital Screening of sexual transmitted diseases Questionnaire's sub main domains in (Pre, and Post) implementation of instructional program in the studied groups with Comparisons Significant

Knowledge of premarital Screening of Sexual transmitted diseases ((((Sub Domains))))	Periods	No.	Study			Control		
			PGMS	t-test	P-value	PGMS	t-test	P-value
Sexual transmitted diseases include	Pre	40	26.00	-9.899	0.000 HS	34.50	0.000	1.000 NS
	Post	40	73.75			34.50		
Causes of sexually transmitted disease	Pre	40	56.25	-2.593	0.013 S	55.63	0.000	1.000 NS
	Post	40	68.75			55.63		
Sexually transmitted diseases are introduced into the body by	Pre	40	49.58	-2.962	0.005 HS	61.67	0.000	1.000 NS
	Post	40	65.83			61.67		
Sexually transmitted diseases can be	Pre	40	46.25	-3.007	0.005 HS	57.50	0.000	1.000 NS
	Post	40	66.25			57.50		
What are routes of sexually transmitted diseases	Pre	40	65.00	-3.035	0.004 HS	63.75	0.000	1.000 NS
	Post	40	81.25			63.75		
Common signs and symptoms of sexually transmitted diseases	Pre	40	48.93	-3.649	0.001 HS	50.00	0.000	1.000 NS
	Post	40	68.93			50.00		
Sexually transmitted disease can be diagnosed by	Pre	40	19.32	-7.616	0.000 HS	11.14	0.000	1.000 NS
	Post	40	65.91			11.14		
Which sexually transmitted diseases that can be taken vaccine to prevent it	Pre	40	26.67	-5.586	0.000 HS	55.00	0.000	1.000 NS
	Post	40	60.00			55.00		
Which sexually transmitted diseases that cannot be treated	Pre	40	70.00	-0.154	0.878 NS	66.25	0.000	1.000 NS
	Post	40	71.25			66.25		
Screening for sexual transmitted diseases	Pre	40	45.34	-6.975	0.000 HS	50.38	0.000	1.000 NS
	Post	40	68.32			50.38		

(*) **HS: Highly Sig. at P<0.01; S: Sig. at P<0.05; NS: Non Sig. at P>0.05; Testing based on Matched Paired t-test.; PSE: percentile standard error; PSD percentile standard deviation; PGMS: percentile grand mean score**

This table showed that along pre-post periods in the light of studied sub main domains highly significant differences at P<0.01 are accounted in the study group, while all of sub domains having no significant differences along pre-post periods concerning controlled group at P>0.05.

Discussion:

Part I: Discussion of Students' Socio Demographic Characteristics

Analysis of such characteristics depicts that high percentage of the students' age is (21-22) years which constitutes to (75 %) of the total sample (Table 1). This finding can be interpreted in a way that the vast majority of students in fourth class of college have age of (21) years.

The results reveal that most of the students are females and constitute to (75%), (62.5%) for both study and control group respectively (Table 1). This finding provides evidence that the number of females is more than males in our nation this result approved with other study that reported that most study sample were female (60.2%) [6] and that may related to females are more interested in knowing details about sexually transmitted diseases.

Concerning father's education, the highest percentage(42.5.%), (45.%) for both study and control group respectively are institute and over graduates. Concerning mother's education, the highest percentage (25.%) , (27.5.%) for both study and control group respectively are intermediate and secondary respectively, due to this finding of study and half of study sample their knowledge about premarital screening of sexual transmitted disease were from friend and relative and level of education of their father and mother play important role in increase their knowledge about premarital screening of STDs. Concerning father's occupation, the highest percentage (42.5%) for study group were employee and (35%) control group were free work, while mother's occupation, the highest percentage (85%), (75%) for both study and control group respectively were housewife (Table 1) this revel that father play important role in increase student knowledge about premarital screening of STDs. The results also show (75%), (72.5%) for both study and control group respectively they live in urban (Table 1) and this finding agreed with other study that reported (70 %) live in urban[12]. The results also show (90%), (77.5%) for both study and control group respectively they live with their family (Table 1), place of student living is help in provide new knowledge sources about premarital screening of STDs so how live in urban their knowledge is differ from how live in rural in gain advance knowledge about premarital screening of STDs

Part II: Source of Knowledge about Premarital Screening of sexual transmitted diseases for both study and control group:

Current study represent that (42.5%) and (57.5%) of studied sample in the study and control groups respectively reported they obtained information regarding premarital screening of sexual transmitted diseases were from friend and relative. Meanwhile, 1% of the study group and 5% of control group obtained information from school. And results shows that studied groups recorded no significant differences at P>0.05 as shown in figure (1).

And that similarity to other study reported that (67.5 %) of studied sample reported they obtained knowledge regarding premarital counseling from friend and relative, meanwhile, (7.5%) of study sample obtained knowledge from newspaper. In other study reported that the highest percentages (61.7%), (47%) and (45.2%) of study sample their source of knowledge about premarital screening in multiple answer choices from (families), (internet) and (friends) respectively. And in other study reported that their source of knowledge about PMS and genetic counseling in multiple answer choices from (studying at the faculty) (63.3%), (mass media) (58.1%) and (family and

friends and health care provider) (56%) [8], [9], [10].

Part III.: Discussion of Effectiveness of Instructional concerning the premarital screening of sexual transmitted diseases on university student Knowledge for (Study and Control group) at Pre and Posttest:

The instructional program was effective on study group in current study through the improvement of assessment level of the university students responses for knowledge concerning the premarital screening of sexual transmitted diseases between pre and post as shown in table (2,3,4). Instructional program and majority of university students responses for the study group at post program were have been passed compared with control group at post period. Indicates that there are highly significant relation between posttest for study group and total university student's knowledge at $P<0.01$, and no significant correlation between the control at pre and posttest and total university student's knowledge at $P<0.05$ that is mean the effectiveness of instructional program of premarital screening of sexual transmitted diseases on study group, and that could be enable to confirms importance or successfulness of applying the program. In addition to that, and rather than testing significant are too sensitive to improvements that occurred for repeated measurements statistic, but most of study group's items illustrated good improvements due to meaningful changes of assessments levels along pre-post periods of time as shown in table((5).

Finding of this study accepted with other study that conducted quasi experimental study (pre and post intervention), of 367 secondary school students, They were divided into El-SayedaKhadiga Secondary School for Girls, El-Sadat Secondary School for Boys, Zagazig Secondary School for Boys, 100 students from each of the three mentioned schools and Gamal Abd-El Naser 67 students, this school in Egypt. The result after implementation of the health educational intervention about sexual transmitted diseases, the research objective and hypothesis of the this study were highly achieved since the results pointed to generally higher level scores of knowledge of STDs. From the researchers' point of view, these improvements might be due to the effect of the training sessions, which were given to adolescents. In addition, they were enthusiast to participate in the sessions and willing to attend future educational sessions. Therefore, these sessions have been successful in the students' improvement of knowledge of STDs . and agreement with other study that assess awareness and knowledge of s STDs among secondary school adolescents and found that nearly all of the respondents had good knowledge related to STDs this good knowledge about STDs is due due to the effect of the educational sessions which was given to adolescents. [7], [11].

Recommendations:

1. Conducting frequent health education programs about PMS of STDs among students in high schools and universities to improve their knowledge and attitude toward PMS.
2. Adding PMS of STDs in the curriculum of secondary and university education to improve knowledge about PMS.
3. Enhance cooperation between ministry of health and ministry of higher education to put strategies to increase student knowledge about PMS of STDs. And that may difficult because of manager of university
4. Using mass media (e.g. television, radio, newspaper and internet) to provide scientific information and guidance about PMS to community in cooperate with ministry of health

to increase level of awareness about PMS of STDs.

5. Increase role of religion leader in community about the effectiveness of PMS in prevent many infectious and heredity disease.
6. Training nurses on PMS of STDs and one the most important role of nurse is health educator, and activate nurse role in centers of premarital screening, primary health care and hospitals.

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