

***The effect of Lebanese Sex Education
Curriculum 2009 on developing students'
positive sexual attitude and good behaviour***

Master's thesis in Education

FACULTY OF PEDAGOGY

Lebanese University

Furn shabak , Lebanon

2013

Supervisor:

Dr Elie Mekhael

(Member in The World Family Organisation WFO)

Done by : Rowaida Aboul Hosn Sleem

Abstract

The aim of this study was to determine the effect of Sex Education by applying the Lebanese Sex Education Curriculum 2009 on developing positive sexual attitude and promoting good behaviour on year 12 life sciences' students in public high schools – Mount Lebanon during 3 months .An intervention was conducted by using Sex Education Curriculum 2009 on sample of 13 students , while this intervention wasn't applied on other high school (control group) with a sample of 8 students. Using quasi- experimental non-equivalent groups design (pre- posttest), evaluation of outcomes was measured by using a questionnaire from an Illustrative questionnaire for interview-surveys with young people done by John Cleland where questions were selected out according to the selected objectives of the new curriculum 2009 and student's social culture context and completed by 21 students. After analysing the data by using SPSS version 16.0, the findings implied that the government should re-introduce the Sex Education Curriculum 2009 as well as to improve it according to the students needs.

Key words: Sex education, Attitude, Behaviour .

Acknowledgements

Apart from the efforts of myself, the success of my thesis depends largely on the encouragement and guidelines of many others. I take this opportunity to express my gratitude to the people who have been instrumental in the successful completion of this research.

I would like to express my deepest appreciation to all those who provided me the possibility to complete this action research . A special gratitude and appreciation given by my supervisor I am grateful for his constant support and help , Dr Hanadi Chatila who contributed in stimulating suggestions and encouragement and special thanks also to Dr Assaad Yammine for sharing the literature, his articles and the Lebanese sex education curriculum 2009 . I would also like to convey thanks to Dr Ali Khalife who provided me with SPSS program.

Furthermore I would also like to acknowledge with much appreciation the crucial role of both public High Schools principals , who gave the permission to use all required equipment and the necessary materials to complete the task , Mrs. Rawya Daou and Mr. Samer Najim respectively. Last but not least, many thanks go to the life sciences' students and parents who accepted to participate in this research and share their personal attitude and behaviour.

TABLE OF CONTENTS

ABSTRACT.....	1
ACKNOWLEDGMENTS	2
TABLE OF CONTENTS.....	3
LIST OF TABLES	4
LIST OF FIGURES	5
LIST OF ABBREVIATION	6
LIST OF SYMBOLS.....	7
CHAPTER I: Introduction	8
CHAPTER II: Background and Literature Review	9
CHAPTER III: METHODOLOGY	12
CHAPTER IV: RESULTS.....	15
CHAPTER V : DISCUSSION AND CONCLUSION.....	24
REFERENCES	26
APPENDICES	28

List of Tables

Table: 1 Descriptive analysis of demographical indicators.....	16
Table : 2 Descriptive analysis about the number of family members or other people live with students in study.....	16
Table:3 Descriptive analysis of students' feeling toward talking about sex with their parents or the adults they live with	17
Table :4 The percentage of students' correct answers about their sexual Attitude...	18
Table : 5 The percentage of students' answers about their sexual behaviour	20
Table : 6 Comparison of pre-test and post-test values for students' attitude	20
Table : 7 Comparison of pre-test and post-test values for students' behaviour.....	21
Table:8 Comparison of post-tests in both control and intervention about the student's attitude and behaviour	21

List of Figures

Figure:1 The mean of the students' sexual attitude as a function of pre and post -test for both control and intervention groups.22

Figure :2 The mean of the students' sexual behaviour as a function of pre and post- test in both control and intervention groups.....22

List of Abbreviations

AIDS Acquired Immunodeficiency Syndrome

ECRD.....Educational Center of Research and Development

HIV..... Human Immunodeficiency Virus

SE Sex Education

STD.....Sexual Transmitted Diseases

UNAIDS United Nations Programme on HIV/AIDS

UNESCO..... **United Nations Educational, Scientific and Cultural Organization**

UNICEF..... United Nations Children's Fund

UNFPAUnited Nations Population Fund

WHO World Health Organization

List of Symbols

df Degree of freedom

M Mean

p alpha (significance)

SD Standard Deviation

t-value The T-Value is the score obtained when you perform a t-test. It represents the difference between the mean or average scores of two groups, while taking into account any variation in scores.

Chapter I: Introduction

World Health Organization (WHO) defined “Adolescents” and “young people” as the age group between 10 and 19 years and between 10 and 24 years, respectively.

According to the latest statistics that was done in 2009, the percentage of youth in Lebanon between 15-24 years and extended to 29 due to socioeconomic characteristics specific to Lebanon, such as age of marriage and social independence, represents 19.80% where 52.70% are males and 47.30% are females and the percentage of school enrolment at secondary level is 82.14% (UNFPA ,Lebanon in a world of 7 billion, 2011). Thus, neglecting this population has a major implication on sexual and reproductive behaviours as they develop into adults where the health threats for adolescents are predominantly behavioural rather than biomedical (WHO ,2000 – 2001).

Sexual Education (SE) was first officially introduced in 1995 in Lebanon, and was aimed at pupils in the eighth grade, ages 12 to 14. However, few years later it was withdrawn after facing fierce criticism from various religious factions in the country (The Daily stars, 2011) . According to WHO (WHO.2010. p28), Youth in Lebanon are estimated at around 20% of the total population and they face two fold discrimination: in society and in the Lebanese laws. Practically, youth are not expected to take initiative or influence society and most of the data available on youth health describe health problems related to behaviour, namely: violence, unprotected sex, unhealthy diet, inactivity and smoking (WHO,2010). As a result, they lack self-confidence and self esteem, and seldom express their thought comfortably and courageously. The Lebanese laws and policies are not youth-friendly as they do not allow youth’s meaningful engagement in decision-making processes in the public sphere (WHO,2010).

Throughout the years of teaching Biology for secondary level in Mount Lebanon , long line of students were asking sexual questions and they were lost , they didn’t know what to do. Students grow up with an idea of who has the right to pleasure and who doesn’t. They grow up with the idea that it’s okay for men to control women’s sexuality, and if you ask them from where you learnt all these they respond : “ We are attracted to pornography , media , our society and many other sources and no one is present to guide us toward the good behaviour and positive sexual attitude neither the curriculum nor the parents.” Thus , students get the sexual behaviour and attitude from various unreliable sources such as the internet, television and pure hearsay and this was stated that the main sources of information

on sexuality, conception, pregnancy, and contraception for young people are friends and the media (UNESCO/UNICEF/WHO /World Bank, 2000).

Thus, for these sexual health problems and questions that are faced every year , a question was raised does applying the Lebanese Sex Education Curriculum 2009 on Year 12 Life Sciences' Students develop a positive sexual attitude and promote good behaviour? On the country, the expected result was that year 12 students will have positive outcome on developing positive sexual attitude and promoting good behaviour after applying the Sex Education Curriculum.

Chapter II : Background and Literature review

World Health Organization (WHO) defined Sexual health as : “...a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled.” (WHO, 2006a, updated 2010).

On the other hand, Sex Education (SE) is currently ruled by laws and is defined as follows: *"The sex education's primary purpose is to provide students with opportunities to learn and understand the different dimensions of the –and their- sexuality, in accordance with the consciences and the right to privacy. This education, based on humanistic values of tolerance and freedom, self and others respect, should also help students to integrate positive attitudes of individual, familial and social responsibilities."* (B.O No. 46: Circular No. 98-234 dated November 19, 1998, Sex Education and AIDS Prevention) .

Research in several countries confirmed that Sex educated women stay healthier and raise better nourished, healthier and better educated children (Cooper, 1999) and the promotion of SE does not encourage young people to have early sexual intercourse (Blum & Mmari, 2006, Kirby & Lepore, 2007) but rather put in evidence a positive effect on the maturity in the sexual behavior of students (Singh & al, 2005) and risk taking (Coyle & al, 2004, 2006 ; Kirby & al , 1997, 2005, 2006, 2007). Moreover, Sex Education programmes don't increase the adolescents and young peoples' sexual activity (Kirby, 2011) and to be effective it needs to be comprehensive, provide unbiased and scientifically based information, value the risks of unprotected sex; clarify the different practices and methods that can

decrease the risks of pregnancy and sexually transmitted diseases during the intercourse and address the importance of using contraceptive methods such as condoms and others.

(Kirby,2011)

According to UNESCO (2012), Lebanon has a low level HIV epidemic. Prevalence is estimated at 0.1% in the general population males and females and the primary mode of HIV transmission is sexual. There are no specific data available on prevalence among young people or on their knowledge of both correctly identifying ways of preventing the sexual transmission of HIV and rejecting major misconceptions about HIV transmission. It is not known how many schools in the country provide life skills-based HIV education. However, there is growing evidence from Knowledge, Attitude, Behaviour and Practices (KABP) studies that Lebanese youth are increasingly displaying risky behaviours, suggesting that the education sector has a key role to play in regard to prevention.

(EDUCAIDS/UNESCO,2010).

According to the recommendations of international organisms such as WHO, the educational centre of research and development in Lebanon (ECRD) has attempted to introduce SE in renovation of curricula 1998. This attempt has faced many objections from several socio- political and religious authorities in Lebanon, which resulted in its total suppression from the curriculum of the EB8 class (students aged 12-13) (Circular no35/M/99, Presidential Decree no2066) and partial containment of the biology curriculum for the 2nd year of secondary school (15-16 years), Literature and Humanities and the 3rd year of secondary school (16-17 years) (Ministry of Education circular no95/M/99, decree no10227/97, Yammine & al, 2007, Yammine ,2008).

In 2009, the sex education curriculum was acknowledged by the minister of education under the title “Life skills applied to education in reproductive health from a gender perspective”, and has been integrated in cycle one at schools. Extensive work still needs to be done in order to integrate sex education in remaining cycles. But the efforts to re-introduce such education back into the curriculum have faced similar challenges ever since.

On other hand , a study done by the help of UNFPA and ECRD about why reproductive health is needed in Lebanese schools revealed that 15% of boys between 15 and 24 years old , they did various short sexual relationship while 5% they were sexually harassed to do a sexual relationship and 1 out of four had used a condom during the sexual relationship .And on the same study, 40% of the students stated that their parents don't understand or guide them ,while 66.8% of the students don't ask their parents about sexual

and reproductive health issues, 79.6% don't ask their teacher about sexual issues and among them 88.3% of females (UNFPA / ECRD,2012). Thus this proves the importance of improvement the sex education curriculum and reintroducing the curriculum that was published by Ministry of Education circular no18/M/2009, August,26,2009.

If students know more about sexual health, they are more likely to postpone initiation or use contraceptives and to be protected (Frost & Darroch Forrest, 1995; Grunseit & Kippax, 1993 , p.10; Grunseit et al., 1997; Kirby, 2000) and in some cases, sex education delayed the initiation of sexual intercourse, decreased sexual activity, and increased the adoption of safer sexual practices among sexually active young people. These findings have recently been confirmed again by a study in the United States (Kirby, 2001).

In 1997, UNAIDS conducted a comprehensive literature review of more than 60 articles that confirmed Education on sexual health and/or HIV does not encourage increased sexual activity, good-quality interventions can help delay first intercourse and/or reduce the frequency of sexual activity, pregnancy, abortion, or birth-rates, good programmes can increase the condom use of sexually active youth and thus protect them from STD, including HIV, and pregnancy and responsible and safe behaviour can be learned (UNAIDS, 1997).

Sex Education have had some success in many countries all over the world , this study attempted to focus on the effect of Sex Education Curriculum 2009 on developing positive sexual attitude and promoting a good behaviour for year 12 Life Sciences' Students in public high Schools – Mount Lebanon during 3 months .

Research Question

Does Sex Education Curriculum 2009 has an increased effect on developing positive sexual attitude and promoting good behaviour for year 12 Life Sciences' Students?

Hypothesis

H0 : Applying the Sex Education Curriculum 2009 doesn't have an effect on developing positive sexual attitude and promoting good behaviour for year 12 Life Sciences' Students in Public High School – Mount Lebanon .

H1 : Applying the Sex Education Curriculum 2009 significantly has an effect on developing positive sexual attitude and promoting good behaviour for year12 Life Sciences' Students in Public High Schools – Mount Lebanon.

Chapter III : Methodology

Participants

A Sample of 21 students was participated in this study from 2 Public High Schools having common Socio- cultural and traditional believes and between 17 – 20 years old , who are originally Lebanese .Also, constant variables were maintained where the students are not in contact with each other, because each school is present in different area but still having same constant factors in terms of traditions and believes , demographic characteristics such as gender, age, ethnic identity, also, students are not relatives or friends to each other, thus , here another factor is maintained constant so the treatment was not transmitted or shared with both schools.

Instrument

The instrument of measurement was a quasi-experimental non-equivalent groups design of pre-post test , The first sections of the questionnaire contained questions on the socio-demographic data of the respondents, and the second section contained questions about the source of information received by students concerning puberty , reproductive system and relationship , and from where they prefer to receive these information, while the third section contained questions which test their sexual behaviour and attitude ,these questions were selected from an Illustrative questionnaire for interview-surveys with young people done by John where these questions were selected out according to the objective of the new curriculum and student's social culture context (Appendix A).

On other hand, the used tool was the curriculum of 2009 for Sex Education where the selected objectives in teaching biology from the sex education curriculum were :

1- Students will be responsible on their sexual relationship , the goal is that students will know what is abortion, the reasons beyond abortion, its disadvantages on female and family , name the contraceptive methods and its consequences . 2- Students build attitude and behaviour as a result of sex education , where the goals : students will name the types STD and the way they are transmitted , obey the medical and prescriptions about protection against STD. 3- Students make decisions related to family in a conscious way , and knowing the importance of participation and be responsible one. where the goals are : Students plan with their partner about the family in terms of kids numbers , know his rights and duties, respect his partner, children and parents rights, and know the importance of pre- marriage blood test to protect the family from genetic diseases or STD .

Procedures

During three months parallel to what is mentioned in the curriculum of 1998 about reproduction and health education with the help of the Sex Education Curriculum (2009) for year 12 in biology course , Sex Education was integrated and applied only in one high School.

Pre-treatment phase was applied for both students before starting the explanation of reproductive part in the life sciences book, where students were given 30 minutes to fill the questionnaire. The Illustrative questionnaire for interview-surveys with young people done by John Cleland is used but 10 questions were chosen to test the students' sexual attitude and behaviour . In the Questionnaire the student's privacy was respected where a random number was posted to the questionnaire as well as they had the ability to refuse to do the pre or post test , or even to withdraw also, the parents and students acceptance to participate in this study in both schools as well as from the school's principal was taken .

During the treatment , the programme combines active learning where a positive classroom climate was sat , so, students felt comfortable learning about and discussing sexual health topics, also, classroom discussion/presentation guidelines included appropriate listening and speaking skills, respecting students who were reluctant to share personal information in group settings, and agreeing to maintain confidentiality if sharing of personal information occurs. The lesson procedure gained the learners attention where it always began in an interesting way. Using a question sheets, a hand out, pictures , videos , all of these things helped to capture student interest such as by relating the lesson to their lives or using a recent media story or an event in the school or community, in order to help capture the attention of the learners. Where technology was used a tool, such as videos, power points , as well as many cases studies or socio- controversial topics in order to enhance discussion about the topics or even to use the social cognitive theory , as a model for the students to learn from it .

During the sessions, the student's questions were answered but preceded with general tip on answering their questions such as reinforce ground rules and establish parameters. Throughout this treatment, students examined sexual and reproductive health knowledge to understand that sexuality is a gift from God to be used appropriately and further their understanding of sexual and reproductive health matters through examination of the related environmental, hormonal, and nutritional factors. As well as, students understood reproductive health through exploration of the causes and issues related to infertility in men and women as well as the effect of abortion. In addition , they described and assessed outside sources and services related to reproductive health. This also encouraged students to investigate the importance of honesty and respect in responsible and healthy relationships.

After three months, a post test was applied for both schools, which was same as the pre-test . The data was collected during pre and post test , The data obtained for this study were analysed and the Obtained statistical values for each question among the class was presented on graphs or tables, then the results were analysed by comparing the effect of treatment before and after and compared to the High school students that wasn't subjected to the treatment, thus, the analysis focused on how much does the Sex Education curriculum 2009 develop positive sexual attitude and promote good behaviour for year 12 Life Sciences' Students .

Ethical Issues

The questionnaire was reviewed and approved by the College Ethic and the student's, parent's and principal acceptance were taken at the beginning of the study (Appendix B).

Data analysis

Data was entered into and analysed using SPSS version 16.0 one sample t-test and pair sample t-test.

Chapter IV : Results

a- Demographic characteristics

All data were analysed by the Statistical Package for Social Sciences (SPSS), Version 16.0. There were a total of 21 students among both public high schools. The mean age of the respondent was 17.6 years in the intervention group and 18.6 years in the control group with a range of 17 and 20 years. The respondent pool was composed of 9 males (42.8 %) and 12 females (57.2 %) where the number of males in control group were 5 (62.5%) and in intervention were 4 (31 %) while the number of females in control group were 3 (37.5%) and in intervention were 9 (69%) (Table 1).

Table: 1 Descriptive analysis of demographical indicators.

	Mean Age	Males		Females	
		n	%	n	%
Intervention group	17.6	4	31	9	69
Control group	18.6	5	62.5	3	37.5
Total of students	-----	9	42.8	12	57.2

On the other hand, it was noticed that in control group most of the students live in big family of 4 (37.5 %) to 5 (37.5 %) members same as the in intervention group , the students live in big family made up of 4 (46.1 %) members. Thus ,42.8% of the students live in a family of 4 members (Table 2).

Table : 2 Descriptive analysis about the number of family members or other people live with students in study.

How many family members or other people live in your home? (Include brothers, sisters, cousins, and yourself.)	1		2		4		5		6		7		8		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Control Group Students'	1	12.5	0	0	3	37.5	3	37.5	1	12.5	0	0	0	0	8	100
Intervention group students'	0	0	1	7.6	6	46.1	3	23.1	1	7.6	1	7.6	1	7.6	13	100
Total	1	4.7	1	4.7	9	42.8	6	28.5	2	9.5	1	4.7	1	4.7	21	100

Also, in both schools 0% of the students mentioned that they feel comfortable of talking about sex with their parents or adults they live with. while 66.7 % of the respondent pool said they feel a little bit comfortable talking with sex , these percentages was 75 % in control group students' and 61.6 % in intervention group students' , however , 23.8 % of the respondent they don't feel comfortable where 12.5 % for control group and 30.8 % for intervention one . However just 9.5 % never did talk about sex with their parents or adults they live with them, where 12.5 % in control group and 7.6 % in intervention one (Table 3).

Table:3 Descriptive analysis of students' feeling toward talking about sex with their parents or the adults they live with .

Do you feel comfortable talking with your parent(s) or the adult(s) you live with about sex ?	Yes		A Little bit		No		Never I did		Total	
	n	%	n	%	n	%	n	%	n	%
Control Group Students'	0	0	6	75	1	12.5	1	12.5	8	100
Intervention group Students'	0	0	8	61.6	4	30.8	1	7.6	13	100
Total	0	0	14	66.7	5	23.8	2	9.5	21	100

b- Source of information regarding the puberty, sexual reproductive system and relationship.

It was noticed that their first source of information about puberty is 35.3 % from the school teacher, 16.5 % from friends, 30.5% from mother, 15 % from films / videos and 2.7% from sisters , in the absence of any information from the father or brother whether a first or second source of information, on other hand the first source of information about sexual and reproductive systems of men and women is 54.3% from the teacher , 14% from the mother, 21.3% from friends ,5% from the father, 2.7% from films/videos and 2.7% from sisters. On contrary, their first source of information on relationships is 48.7% from the friends 29.4% from mother, 9% from films/videos ,7.7% from personal experience and 5% from the father (Appendix C) .

On contrary , when students answered the third section of questionnaire about their sexual attitude and behaviour , the results of the correct answers were as follows during pre and post tests . Concerning their sexual attitude , three questions were asked to the students if they agree , don't know / not sure or disagree and the results were as following , 46.6% of control group answered disagree in pre-test regarding the question " A boy will not respect a girl who agrees to have sex with him." while 55.5 % for intervention group , however, when the post-test was applied after 3 months , the percentage of control group who gave the correct answer decreased to 20% while that of the intervention group it increased rapidly to

80% . Also , concerning the question " It is mainly the woman's responsibility to ensure that contraception is used regularly." 0% of control group students answered disagree in both pre-test and post-test , while for the intervention group , the percentage of students's correct answer increased from 11.1 % during the pre-test to 40.3% during the post-test. Where as for the question " I think that you should be in love with someone before having sex with them." was asked 26.6% of control group students and 58.4 % for intervention group answered agree during the pretest , but the percentage increased during the post-test in both groups but more postively significant for intervention group, where in control group it increased to 40 % while 100% in intervencion group (table 4).

Table :4 The percentage of students' correct answers about their sexual Attitude.

Students' Sexual Attitude % of the correct answers Question Number	For control group		For Intervention group	
	Pre-test	Post-test	Pre-test	Post-test
2- A boy will not respect a girl who agrees to have sex with him	46.6	20	55.5	80
6- It is mainly the woman's responsibility to ensure that contraception is used regularly.	0	0	11.1	40.3
7- I think that you should be in love with someone before having sex with them.	26.6	40	58.4	100

Concerning the sexual behaviour of the students , the questionnaire included 7 questions and the results were as following during the pre-test and post-test for both groups. The first question was about " I think that sometimes a boy has to force a girl to have sex if he loves her. " 90% of control group students during pre-test and post-test gave the correct answer disagree greater than 87.5 % of the intervention group students during both tests. However , in the second question : " It is sometimes justifiable for a boy to hit his girlfriend. " during pre-test 83.4% of control group gave the corect answer diagree approximately equal to 87.5% of the intervention group , while during pos-test, this percenatge of correct answer increased rapidly to 100% for intervention group but it decreased to 73.4 % for control group.

On other hand for the question " I am confident that I can insist on condom use every time I have sex." The percentatge of correct answer agree during pre and post-test for control group remained constant 40 % while for the intervention group durig pretest was 18.1 % and increased to 41.6 % in post-test.

For question number 5 " I would never contemplate having an abortion my self or for my partner." In pre- test 20 % of control group gave the correct answer agree less than in intervention group 69.5 % , but during the post-test , both group percentages increased but for control group 53.4 % less than for intervention group 100%.

Also , for question 8 " I feel that I know how to use a condom properly." in pre-test , 66.6 % of control group agreed greater than intervention group 30.5% , but during the post-test the percentatge of students who agreed decreased to 50 % , while for intervention group it increased to 52.8 % . Question number 9 : " Is it ok for a boy /girl to pressure a girl / boy for a kiss? " In pre-test , 46.6 % of control group agreed less than in intervention group 57 % , while in post-test , the percentatge of correct answer decreased to 30% in control group ,while in intervention group it increased to 100% . Same as in question 10 , " Could you stop a boy/ girl if he/she wanted to kiss you?" in pre-test , 43.4 % of control group answered yes greater than in the intervention group 38.9 % , however , in post-test , the percentage in control group decreased to 36.7 % while it increased rapidly in the intervention group to 94.4 % (Table 5).

Table : 5 The percentage of students' answers about their sexual behaviour .

Students' Sexual Behaviour % of the correct answers Question Number	For control group		For intervention group	
	Pre-test	Post-test	Pre-test	Post-test
1- I think that sometimes a boy has to force a girl to have sex if he loves her.	90	90	87.5	87.5
3- It is sometimes justifiable for a boy to hit his girlfriend.	83.4	73.4	87.5	100
4- I am confident that I can insist on condom use every time I have sex.	40	40	18.1	41.6
5- I would never contemplate having an abortion my self or for my partner.	20	53.4	69.5	100
8- I feel that I know how to use a condom properly.	66.6	50	30.5	52.8
9- Is it ok for a boy /girl to pressure a girl / boy for a kiss?	46.6	30	57	100
10- Could you stop a boy/ girl if he/she wanted to kiss you?	43.4	36.7	38.9	94.4

c- Comparison before and after the program for each group

Table 6 describes the scores of students' sexual attitude when one sample t-test is applied with a test value 50 , it shows that the average of students' attitude in pre-test for control group was 24.4 ($t= -1.89$, $p= 0.198$) and for intervention group 41.6 ($t=-0.54$, $p = 0.641$) but in post-test , the mean for the intervention group it decreased to 20 ($t= -2.59$, $p = 0.122$) and increased in intervention group to 73.4 ($t= 1.33$, $p = 0.313$).

Table : 6 Comparison of pre-test and post-test values for students' attitude .

	Pre-test	Post- test	t-value pre-test	t-value post-test	P value Pre-test	P value Post-test
Attitude for control group Mean [SD]	24.4 [23.3]	20 [20]	-1.89	-2.59	0.198	0.122
Attitude for intervention group Mean [SD]	41.6 [26.5]	73.4 [30.3]	-0.54	1.33	0.641	0.313

Table 7 describes the scores of students' sexual behaviour when one sample t-test is applied with a test value 50 , it shows that the average of students' attitude in pre-test for control group was 55.5 ($t= 0.599$, $p = 0.57$) and for intervention group 55.5 ($t=-0.53$, $p = 0.61$) but in post-test , the mean for the intervention group it decreased to 53.3 ($t= 0.414$, $p = 0.69$) and increased in intervention group to 82.3 ($t= 3.4$, $p = 0.013$).

Table :7 Comparison of pre-test and post-test values for students' behaviour.

	Pre- test	Post- test	t-value pre-test	t-value post-test	P value Pre-test	P value Post-test
Behaviour for control group Mean [SD]	55.5 [27.5]	53.3[21.4]	0.599	0.414	0.57	0.69
Behaviour for intervention group Mean [SD]	55.5 [27.5]	82.3 [24.6]	0.53	3.4	0.61	0.013

d- Scores of post -tests by using pair sample t-test for both groups

“A paired-samples t-test was conducted to compare the means of post-test for the behaviour and attitude of grade 12 life sciences students with sex education curriculum 2009 and with curriculum 1997 .” and the results were presented on table 8.

Table:8 Comparison of post-tests in both control and intervention about the student's attitude and behaviour .

	Post- test For control group	Post-test for intervention group	Mean paired difference [SD]	t-value	df	P value
Attitude Mean [SD]	20 [20]	73[30.3]	5.34333E1 [11.3]	-8.137	2	0.015
Behaviour Mean [SD]	53.3[21.4]	82.3 [24.6]	2.89714 E1 [29.5]	2.591	6	0.041

Table 8 and figures 1 and 2 showed that there was a significant difference in the scores when using sex education curriculum 2009 on developing positive attitude ($M = 73.4333$, $SD = 30.38689$) and with curriculum 1997 ($M = 20.0$, $SD = 20.0$) conditions ; $t(2) = -8.137$. $P = 0.015$.

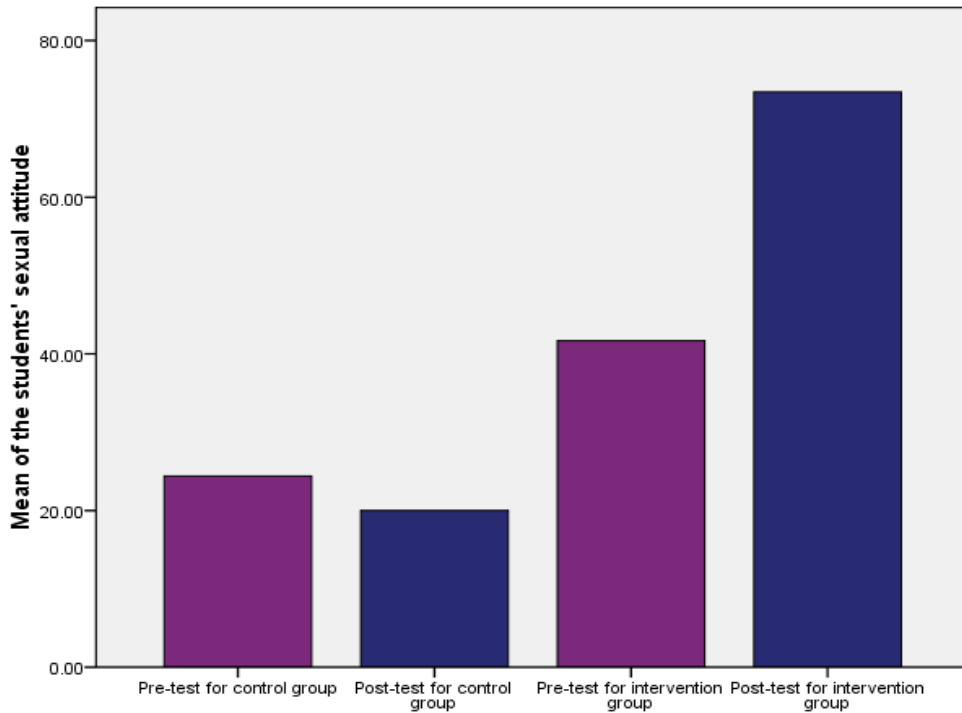


Figure:1 The mean of the students' sexual attitude as a function of pre and post -test for both control and intervention groups.

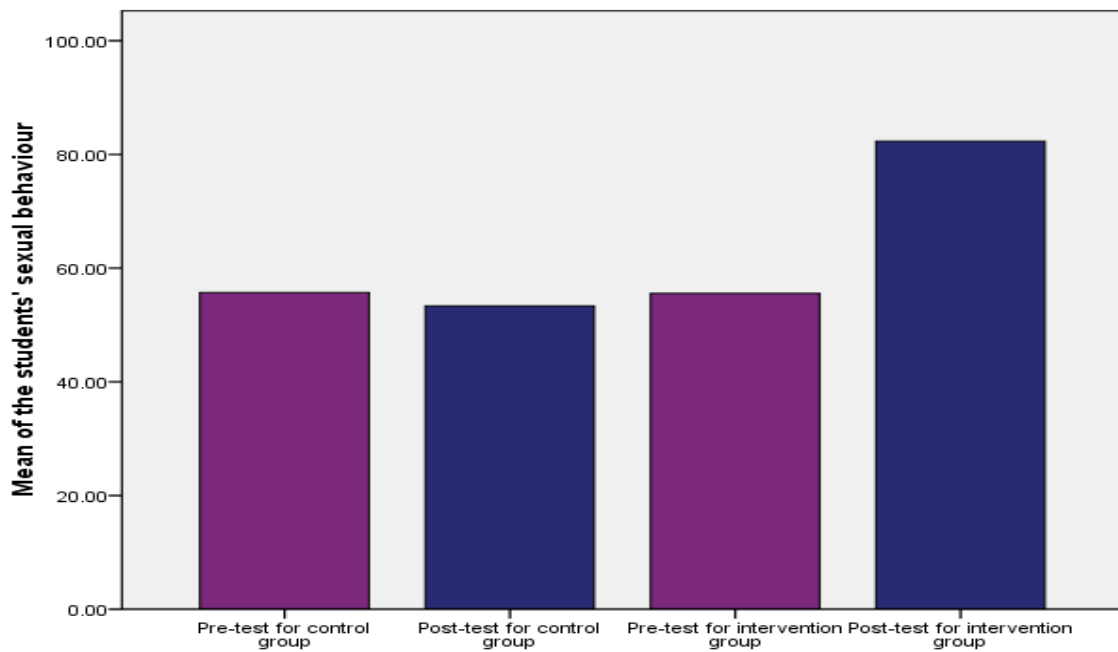


Figure :2 The mean of the students' sexual behaviour as a function of pre and post- test in both control and intervention groups.

Also, there was a significant difference in the scores when using sex education curriculum 2009 on promoting good behaviour ($M = 82.3286$, $SD = 24.63079$) and with curriculum 1997 ($M = 53.3571$, $SD = 21.43641$) conditions; $t(6) = 2.591$. $p = 0.041$.

These results suggested that sex education curriculum really does have a significant effect on developing positive sexual attitude and good behaviour . Specifically, our results suggested that when sex education curriculum 2009 was applied , the student's positive attitude and good behaviour were increased positively.

Chapter V : Discussion and Conclusion

The aim of this study was to investigate the effect of applying Sex Education Curriculum 2009 on year 12 students on developing positive attitude and promoting good behaviour. Hence, when the treatment (intervention) group was compared with the control group in an intention to treat analysis, there were significant differences on developing positive sexual attitude and promoting good behaviour by using Sex Education Curriculum 2009. Those in the intervention group reported less at-risk of sexual behaviours and developed a positive attitude and promoted good behaviour than their counterparts in the control group.

The results indicated that students feel shy and little bit comfortable to discuss sexual topics with their parents or adults they live with (66.7 %) and as well as their source of information is mostly from their friends , teachers and films / videos and with parents at last position , and the reason beyond it because sexual topics are considered to be taboo for social and cultural reasons. Also, this study showed that one-third of the young people feared discussing their sexual health problems with parents or adults as well as there is absence of father role on topics of puberty, reproductive systems ad relationships. This indicates that they have less trust and more fear of breaking confidentiality about their sexual health. It is well discussed that if the confidentiality is compromised, young people will be less likely to use the services or will be less than honest about their sexual health conditions (Thomas & el ,2006) .

The findings indicated an increase in sexual behaviour that showed a statistically significant difference between pre-test and post-test for intervention groups. However, the attitude score did not show a statistical significant difference between pre-test and post-test within the group. However , when a sample pair t-test was applied to compare between the

post-test results of both groups , it showed a significant difference. From this study, it was observed that the selected objectives from sex education curriculum 2009 developed positive sexual attitude and promoted good behaviour . The obtained values $p = 0.041$ for behaviour , and $p = 0.015$ are less than 0.05. Because of this, we can conclude that there was a statistically significant difference between the mean of positive attitude and good behaviour with sex education curriculum 2009 and curriculum 1997 conditions. Since the Paired Samples Statistics box revealed that the means number of positive attitude and good behaviour with curriculum 2009 condition was greater than the mean for curriculum 1997 condition, we can conclude that participants in the Sex Education curriculum 2009 condition were able to have positive attitude and good behaviour significantly more than participants in the curriculum1997 condition.

In addition, the findings of this study implied that the government should re-introduce the sex education curriculum2009. This study suggests that sex education program 2009 promotes a positive sexual attitude and good behaviour where several studies and reviews have concluded that school-based sex education for young people improves their understanding on sexually transmitted infections, including HIV/AIDS, reduces risky behaviour like unsafe and unprotected sexual intercourse, and develops skills to communicate effectively and make healthy relationships (Kirby et al,2007).

The study had many methodological limitations that may have affected the results. Because, the participants were recruited from higher secondary education level and hence, it is difficult to generalise the findings on common grade 12 students in the local context. The quantitative nature of the questionnaire might have prevented students from sharing their views that might have been different from the options available in the questionnaire. In

addition, there is always doubt about the honesty of the students' responses because it is self administered questionnaires.

However, sex education curriculum needs more improvement concerning the nowadays needs for our students as well as it is a much wider concept than this and future research would be beneficial exploring different aspects of sexual health education such as puberty and family welfare and the long-term effects of sex education on dimensions such as quality of sexual adjustment and consistency of contraceptive usage. This study suggests that, in order to be effective, Sex Education programs have to meet a number of characteristics and need to be implemented by trained educators who are knowledgeable about human sexuality, understand behavioural training and are comfortable in interacting with adolescents and young people on sensitive topics.

References

1. Blum, R., Mmari, R.(2006). Risk and protective factors affecting adolescent reproductive health in developing countries: an Analysis of adolescent sexual and reproductive health literature from around the world. Genève : Organisation mondiale de la Santé .
2. Cooper, K.J. (1999)Worldwide effort focuses on educating–“the girl child.” The Seattle Times, 21, A17. Retrieved from : <http://www.seattletimes.com>
3. Coyle, K., Kirby, D., Marin, B., Gomez, C., et Gregorich, S.(2004). Draw the Line/Respect the Line: A randomized trial of a middle school intervention to reduce sexual risk behaviors. *American Journal of Public Health*, 94(5), 843-851.
4. Coyle, K. K., Kirby, D. B., Robin, L. E., Banspach, S. W., Baumler, E., et Glassman, J. R.(2006). All4You! A randomized trial of an HIV, other STDs and pregnancy prevention intervention for alternative school students. *AIDS Education and Prevention*, 18 (3), 187-203.
5. EDUCAIDS / UNISCO .(2010). "Lebanon: Building the capacity of School Health Educators to Teach HIV and AIDS Education". Retrieved from: <http://unesdoc.unesco.org/images/0021/002153/215362e.pdf>
6. Frost J. & Darroch Forrest J. (1995). Understanding the impact of effective teenage pregnancy prevention programs. *Family Planning Perspectives*, 27, 188195.
7. Grunseit A, Kippax S.(1993). Effects of Sex Education in Young People's Sexual Behaviour, World Health Organization, Geneva, p.10.
8. Grunseit, A., & Kippax, S. (1997). Effects of Sex Education on Young People's Sexual Behaviour. Report commissioned by the Youth and General Public Unit, Office of Intervention and Development and Support, Global Programme on AIDS,

- WHO. North Ryde: National Centre for HIV Social Research, Macquarie University, ND. As cited in WHO, 1997a, and Barnett.
9. Kirby, D. (2001). Emerging Answers: New Research findings on programs to reduce teen pregnancy. Washington, DC: National Campaign to Prevent Teen Pregnancy. Retrieved from.: <http://www.teenpregnancy.org/resources/data/pdf/emersanswsum.pdf>
 10. Kirby DB, Laris BA, Rolleri LA.(2007). Sex and HIV education programs: their impact on sexual behaviours of young people throughout the world. J Adolesc Health.
 11. Kibry ,D.(2011) . The impact of sex education on the sexual behaviour of young people. Expert paper no.2011/12 . United Nations New York.
 12. The Daily Star, Olivia Alabaster ,Sept.19.2011. Retrieved from: <http://www.dailystar.com.lb/News/Local-News/2011/Sep-19/149097-absence-of-sex-education-in-lebanese-schools-poses-risks-experts.ashx#axzz2HJVyijD6>
 13. Ministère de l'éducation; Centre de Recherche et de développement en éducation, Liban en ligne www.crdp.org OMS (1993). L'organisation mondiale de la santé encourage l'éducation sexuelle à l'école pour prévenir le sida, Genève, OMS, communiqué OMS/1994
 14. Thomas N, Murray E, Rogstad K. (2006). Confidentiality is essential if young people are to access sexual health services. Int J STD & AIDS .
 15. UNAIDS . (1997). Impact of HIV and sexual health education on the sexual behaviour of young people: a review update. UNAIDS/97.4. Retrieved from: <http://www.unaids.org/publications/documents/children/schools/grunskme.pdf>.
 16. UNFPA(2011) , Lebanon in a world of 7 billion,report. Lebanon. Retrieved from: <http://www.unfpa.org.lb>
 17. UNFPA / ECRD.(2012). Handbook for Educators: Why reproductive health at schools ? Dr. Layla Maleha and Dr Ziad Al Refai.
 18. UNESCO/UNICEF/WHO/World Bank.(2000) . Focusing Resources on Effective School Health: a FRESH Start to Enhancing the Quality and Equity of Education.
 19. WHO,Research on Sexual and Reproductive Health. (1996a and updated on 2010). Retrieved from : http://www.who.int/reproductivehealth/topics/sexual_health/sh_definitions/en/index.html
 20. WHO, Research on Reproductive Health. Biennial Reports. Geneva: WHO; 2000-2001.
 21. WHO Research Country cooperation strategy for WHO and Lebanon 2010 - 2015. Lebanon . Retrieved from: www.who.int/countryfocus/cooperation_strategy/ccs_lbn_en.pdf
 22. Yammine,A.(2008) .Impact de la religion sur les conceptions des enseignants libanais à propos de l'éducation à la sexualité. Université Senghor - Alexandrie Égypte.
 23. Yammine. A, et *al.*(2007). Rôle des pouvoirs sociopolitiques et religieux au Liban dans la suppression du chapitre de la reproduction humaine du manuel de biologie de la classe EB8. In Meeting IOSTE "Critical analysis of science textbooks". 7-10 février 2007, Hammamet-Tunisie.

Appendix A

Lebanese University
Faculty of pedagogy
Professional master in Biology



**Illustrative Questionnaire for
Interview-Surveys with Young
People**

John Cleland

Rowaida Aboul Hosn

2012-2013

We are interested in learning more about your thoughts, opinions, and information about sexual health . We hope you will help us by completing this survey. We will use your answers to improve school health education programs. None of your answers will be available to anyone at any time. All the information you give us will be kept private. Do not put your name anywhere on this questionnaire. **8 pages**

A-Questions about You .

Please check **X** in one box

1.Sex: 1 2
 Male Female



2. When were you born? / / (DO NOT put today's date!)
 Place month day year
 Nationality:

3. Do you live with your parents?
 a. I live with both of my parents 1
 b. I live with my mother only 2
 c. I live with my father only 3
 d. I live with other relatives/guardian(s) 4

4. What language is spoken **most** in your home?
 Arabic 1 , English 2 , others
 3 If others , what ?

5. Are you comfortable speaking and reading English?

 1 2 3 4 5
 Yes, all of Most of About half Some of No, almost none
 the time the time of the time the time of the time

6. How many family members or other people live in your home? (Include brothers, sisters, cousins, and yourself.) **Write**  **the number in the space below.**
 _____ people live in my house.

7. Do you feel comfortable talking with your parent(s) or the adult(s) you live with about **sex**?

 1- Yes 2- A little bit 3- No 4- Never I Did.

B : Sources of information and knowledge of reproductive health(1)

		(1) Most Important	(2) Second most important	(3) Preferred
<p>1. Young people learn about puberty - I mean the ways in which boys' and girls' bodies change during the teenage years - from many sources. They may learn from teachers at school, parents, brothers and sisters, from friends, from doctors or they may learn from books, films and magazines. What has been the most important source of information for you on this topic? And the second most important? CIRCLE MOST IMPORTANT IN COL 1 AND SECOND MOST IMPORTANT IN COL 2</p>	School teacher	01	01	01
	Mother	02	02	02
	Father	03	03	03
	Brother	04	04	04
	Sister	05	05	05
	Other family members	06	06	06
	Friends	07	07	07
	Doctors	08	08	08
	Books/magazines	09	09	09
	Films/Videos	10	10	10
	Other (Specify.....)	11	11	11
<p>2. From whom, or where, would you prefer to have received more information on this topic? CIRCLE ONE ANSWER IN COL. 3</p>

		(1) Most Important	(2) Second most important	(3) Preferred
<p>3. Now I want to ask you a similar question about sources of information on the sexual and reproductive systems of men and women - I mean where eggs and sperm are made and how pregnancy occurs. What has been the most important source of information on this topic? And the second most important? CIRCLE IN COLS. 1 AND 2.</p>	School teacher	01	01	01
	Mother	02	02	02
	Father	03	03	03
	Brother	04	04	04
	Sister	05	05	05
	Other family members	06	06	06
	Friends	07	07	07
	Doctors	08	08	08
	Books/magazines	09	09	09
	Films/Videos	10	10	10
	Other (Specify.....)	11	11	11
<p>4. From whom or where, would you prefer to receive (or prefer to have received) more information on this topic? CIRCLE ONE ANSWER IN COL. 3</p>

		(1) Most Important	(2) Second most important	(3) Preferred
5. Now there is a third similar question about sources of information on relationships - I mean how boys should treat girls and vice versa. What has been the most important source of information on this topic? And the second most important? CIRCLE IN COLS 1 AND 2	School teacher	01	01	01
	Mother	02	02	02
	Father	03	03	03
	Brother	04	04	04
	Sister	05	05	05
	Other family members	06	06	06
	Friends	07	07	07
	Doctors	08	08	08
	Books/magazines	09	09	09
	Films/Videos	10	10	10
	Other (Specify.....)	11	11	11
	
	
6. From whom, or where, would you prefer to receive more information on this topic? CIRCLE ONE ANSWER IN COL. 3				

C: Sexuality, gender and norms (2)

Young people have various views about relationships. I will read you out some views. For each one, please tell me whether you agree or disagree?			
1- I think that sometimes a boy has to force a girl to have sex if he loves her.	Agree	1	
	Don't know/not sure	2	
	Disagree	3	
2- A boy will not respect a girl who agrees to have sex with him.	Agree	1	
	Don't know/not sure	2	
	Disagree	3	
3- It is sometimes justifiable for a boy to hit his girlfriend.	Agree	1	
	Don't know/not sure	2	
	Disagree	3	

4-	I am confident that I can insist on condom use every time I have sex.	Agree Don't know/not sure Disagree	1 2 3	
5-	I would <u>never</u> contemplate having an abortion myself or for my partner.	Agree Don't know/not sure Disagree	1 2 3	
6-	It is mainly the woman's responsibility to ensure that contraception is used regularly.	Agree Don't know/not sure Disagree	1 2 3	
7-	I think that you should be in love with someone before having sex with them.	Agree Don't know/not sure Disagree	1 2 3	
8-	I feel that I know how to use a condom properly.	Agree Don't know/not sure Disagree	1 2 3	
9-	Is it ok for a boy /girl to pressure a girl / boy for a kiss?	Agree Don't know/not sure Disagree	1 2 3	
10-	Could you stop a boy/ girl if he/she wanted to kiss you?	Yes No Not sure	1 2 3	

References:

(1) Part II Illustrative Questionnaire for Interview-Surveys with Young People John Cleland
<http://www.who.int/reproductivehealth/topics/adolescence/questionnaire.pdf>

Appendix B

**Letter Requesting Permission to Participate in an
Action Research Study**

Date : Dec.10.2012

Dear Sir / Madam ,

In addition of being a teacher at Kornayel and Ain Dara High School , I am also a student in Professional Master's Program in the Lebanese University Faculty of Pedagogy. As part of this program, I will be conducting a research to study the effect of sex education curriculum 2009 among grade 12 on developing positive attitude and good behaviour . I'll be working with many grade 12 students life sciences in this study and would like to invite you to be a part of it. Below is some information to help you make an informed decision:

Why I'm doing this study: I am really interested to study the effect of sex education curriculum 2009 among grade 12, because in the absence of a strong, integrated sex education program in Lebanese schools, the bulk of the younger generation has been left wholly ignorant about many very serious issues, including sexual orientation, HIV/AIDS and other sexually transmitted diseases (STDs), protection and prevention, abortion and rape.

What will happen to you if you are in the study? If you participate in this study , the selected objectives will be applied to develop good attitude and behaviour, integrated with the curriculum 1997.

Will any part of the study hurt you or help you? This study won't hurt you in any way, and but it may help you during your life and protect you.

Who will know that you are in the study? I'm going to keep whatever I hear from you separate from what I hear from other people -- other students or other teachers. I won't tell them.

The rights below are the rights of every person who is asked to be in a research study. As a research subject, your child has the following rights:

- 1) To be told what area, subject, or issue is being studied.
- 2) To be told what will happen to you and what the procedures are.
- 3) To be told about the potential risks or discomforts, if any, of the research.
- 4) To be told if you can expect any benefit from participating and, if so, what the benefit might be.
- 5) To be allowed to ask any questions concerning the study, both before agreeing to be involved and during the course of the study.
- 6) To be told what medical treatment is available if any complications or injuries arise as a result of the research study.
- 7) To refuse to participate in the study or to stop participating after the study starts.
- 8) To be free of pressure when considering whether you wish to be in the study.

If you have other questions, please contact me through my phone number or by email.

Thank you,

Sincerely

Signature of the teacher _____ Date Dec. 10.2012

Signature of Participant _____ Date _____

Signature of Parents _____ Date _____

Appendix C

Table : The percentage of students' Source of Information for puberty, sexual and reproductive systems and relationships .

<p>1- What has been the most important source of information for you about puberty? And the second most important?</p> <p>2-From whom, or where, would you prefer to have received more information on this topic?</p>		(1) Most Important	(2) Second most important	(3) Preferred
<p>3-What has been the most important source of information on sexual and reproductive systems of men and women on this topic? And the second most important?</p> <p>4- From whom or where, would you prefer to receive (or prefer to have received) more information on this topic?</p>		(1) Most Important	(2) Second most important	(3) Preferred
	1-School teacher	35.3%	36.2%	33.7%
	2-Mother	30.5%	9%	25%
	3-Father	0%	0%	0%
	4- Brother	0%	0%	0%
	5-Sister	2.7%	11.1%	0%
	6-Other family members	0%	0%	0%
	7-Friends	16.5%	19.6%	0%
	8-Doctors	0%	5%	25.2%
	9-Books/magazines	0%	7.8%	16.1%
	10-Films/Videos	15%	11.3%	0%
	11-Other (my self)	0%	0%	0%
	1-School teacher	54.3%	25.1 %	44.8 %
	2-Mother	14 %	19.5%	11.1%
	3-Father	5%	0%	0%
	4-Brother	0%	5%	0%
	5-Sister	2.7%	0%	0%
	6-Other family members	0%	0%	0%
	7-Friends	21.3%	11.8%	2.7%
	8-Doctors	0%	5%	32.5%
	9-Books/magazines	0%	17.3%	2.7%
	10-Films/Videos	2.7%	16.3%	6.2%
	11-Other (my self)	0%	0%	0%

5-Now there is a third similar question about sources of information on relationships - I mean how boys should treat girls and vice versa. What has been the most important source of information on this topic? And the second most important?		(1) Most Important	(2) Second most important	(3) Preferred
	1-School teacher	0%	0%	21.2%
	2-Mother	29.4%	5.5%	11.1%
	3-Father	5 %	0%	5%
	4-Brother	0%	0%	0%
	5-Sister	0%	5.5%	7.8%
6-From whom, or where, would you prefer to receive more information on this topic?	6-Other family members	0%	5 %	0%
	7-Friends	48.7%	53 %	27.3%
	8-Doctors	0%	0%	0%
	9-Books/ magazines	0%	2.8%	6.2%
	10-Films/Videos	9 %	2.8%	6.2%
	11-Other (my self)	7.7%	26.3%	15.2%

Rowaida Aboul Hosn Sleem
A Master Degree Project Presented for the Fulfillment of the
Master's Degree in
Teaching Biology
2013