International Journal of Research in Medical Sciences
Parmawati I et al. Int J Res Med Sci. 2015 Oct;3(10):2780-2785
www.msjonline.org
pISSN 2320-6071 | eISSN 2320-6012

DOI: http://dx.doi.org/10.18203/2320-6012.ijrms20150831

Research Article

The effect of gender based sexual health education in promoting adolescent girls sexual health attitude

Ika Parmawati[1]*, Ova Emilia[2], Wenny Artanty Nisman[3]

[1]Student of Master Program in Nursing, Faculty of Medicine, Gadjah Mada University, Indonesia and Lectures of Jenderal Achmad yani Yogyakarta Health Science Academy, Indonesia
[2]Lectures of Medical Faculty, Gadjah Mada University, Indonesia
[3]Lectures of Master Program in Nursing, Faculty of Medicine, Gadjah Mada University, Indonesia

Received: 28 August 2015
Accepted: 09 September 2015

***Correspondence:**
Ika Parmawati, B.N.,
E-mail: ika_parmawati@yahoo.com

ABSTRACT

Background: Adolescent development affects the sexual desire and acitivity. Gender inequality may lead to discrimination and an increase in the vulnerability of adolescent girls to sexual coercion. Meanwhile, gender-sensitive reproductive health education is known to be able to decrease such vulnerability. Researcher wants to find the effects of gender-sensitive reproductive health education towards the adolescent girls' attitude improvements.
Methods: This study was quasi experiment research using pretest-posttest with control group design and conducted in May to June 2015**.** The samples were 93 adolescent girls which were selected from the tenth grade students of SMK Ma'arif 1 dan Muhammadiyah 1 Temon by purposive sampling. The data were collected by using reproductive health attitudes questionnaires based on researcher's instrument experiments of 0.812 as the reliability. The reproductive health education based on gender ideology was given to the intervention group. Meanwhile, for the control group, it was given through a common reproductive health education carried out by puskesmas officers. The data were analyzed by univarite and bivariate analysis with the significance of $p<0.05$ and CI 95%.
Results: There is a significant difference in the pretest and posttest scores of reproductive health attitudes in the intervention group ($p=0.004$), but not in the control group ($p=0.150$). There is a significant difference in the mean score improvement of reproductive health attitudes between the intervention and control groups ($p=0.012$).
Conclusions: Reproductive health education which is based on gender ideology affects the improvement of adolescent girls' reproductive health attitudes.

Keywords: Reproductive health education, Gender, Attitude

INTRODUCTION

Physical, cognitive, social, emotional, and sexual changes affect adolescents' misbehavior.[1-3] Premarital sex increases the number of deliveries by adolescents, unwanted pregnancies, unsafe abortions, deaths, HIV, other sexually transmitted infections which are due to discrimination and injustice.[4-6] Adolescents undergo pressure, conflict, and limited by norms because of lack of information, skills, rights awareness, and gender expectations.[5] Gender inequality leads to low sexual self-control and affects females' decision making.[7] Gender roles, in fact, cause women to be vulnerable to sexual coercion.[8,9] Gender-sensitive reproductive education can address these vulnerabilities, promote gender equality, improve safe relationship, control sexual impulses, shape the knowledge, attitude, behaviour, motivation and self-control efficacy, change the belief in traditional gender roles, reduce sexuality effects, increase the empowerment of adolescents, decrease sexual coercion and harassment, and be appropriate to be conducted within a society who considers taboo to talk about sexuality.[10-14] Kulon Progo

is the first district in DIY province which will include reproductive health in its school curriculum.[15] Based on some preliminary studies, it is known that the incidence of premarital teenage pregnancy is high. Some of adolescent girls are sexually active because they are forced and unable to refuse their boyfriends' requests. From such phenomenon, the researchers are interested in finding out about the effects of reproductive health education based on gender ideology in improving the reproductive health attitudes of adolescent girls.

METHODS

This quasi-experimental research with pre-test-post-test with control group design was conducted in SMK Ma'arif 1 Temon and SMK Muhammadiyah 1 Temon in May-June 2015. A population of 346 people and 93 samples of students in grade X were selected by using purposive sampling based on minimum sample size calculations for hypothesis testing of 2 means of non-pair groups as well as both inclusion and exclusion criteria set by the researchers. The inclusion criteria included female students of grade X who were registered and actively participated in the learning activities at the even semester of academic year 2014/2015 at SMK Ma'arif 1 Temon and SMK Muhammadiyah 1 Temon Kulon Progo Yogyakarta, and were willing to become respondents, and had parents' permission to become respondents. The exclusion criteria included students who did not attend the school when the data were collected, and students who did not attend a series of health education activities. The samples consisted of 50 respondents as intervention group and 43 respondents as control group.

The instrument was a module and 27 questionnaire items of reproductive health attitudes which the researchers made based on UNICEF guidelines for reproductive health education, undergoing adjustment to the objectives of reproduction education based on gender ideology. The reliability of the questionnaires on reproductive health attitudes based on researcher's testing was 0.812. The questionnaires on reproductive health attitudes consisted of five aspects, namely attitudes toward sexual activity, self-esteem, sexual behaviour and norms, communication and decision-making, as well as gender equality in sexuality. The researchers explained about the research and informed consent to potential respondents and parents prior to the research. Once potential respondents were considered to meet the criteria of this research, they were then given a pre-test. After that, the respondents in the intervention group were given reproductive health education based on gender ideology in the forms of a discussion of group cases accompanied by a facilitator for 60 minutes which was followed by 60-minute expert lecture with the material of sexual activity, self-esteem of adolescents, sexual behaviour and norms, communication skills, negotiation, and decision making, as well as gender equality in sexuality. On the other hand, the control respondents were given regular reproductive health education by officers from local health centre for 60 minutes.

The post-test was performed in 3 weeks after the intervention. The characteristics of the respondents were analysed by using univariate and presented in a frequency distribution table, while the homogeneity test of the characteristics of the respondents was performed by using Mann-Whitney test, Chi-square test and Fisher's exact test. Bivariate analysis for the assessment of the differences between pre-test and post-test scores of each aspect in the attitude questionnaire was performed by using Paired T-test and Wilcoxon test. The assessment of the differences between pre-test and post-test scores of each group's attitudes and the assessment of the differences of mean score improvement of the attitudes of the control and intervention groups were performed by using Mann-Whitney test with a significance of $p < 0.05$ and 95% CI.

RESULTS

Characteristics of respondents

There was no significant difference in the characteristics of age, age at menarche, the number of dating experience, experience of sexual activity, housing, and experiences of reproductive health education from experts, printed and electronic media. Most respondents of the intervention group were 15 years old (42%), the age of menarche of 12 years (18%) and 13 years (18%), had experience of dating for 1-5 times (70%), experienced light sexual activity while dating (50%) , lived with their parents (86%) , and once got a reproductive health education from experts (90%) and electronic media (30%). Meanwhile, most respondents of the control group were 15 years old (48.84%), the age at menarche of 14 years (27.91%), had experience of dating for 1-5 times (69.77%), experienced light sexual activity while dating (62.79%), lived with their parents (90.70%), and once received reproductive health education from experts (81.40%), print media (6.98%), and electronic media (41.86%) (Table 1).

Comparison of pre-test and post-test scores of reproductive health attitudes

From Paired t-test analysis, it was found out that there were significant differences in the pre-test and post-test scores of reproductive health attitudes of the respondents in the intervention group with p=0.004 and an increase in the mean of 3,88. From Wilcoxon-test analysis, there were significant differences of the attitude scores on the aspects of attitude toward self-esteem (p=0.005), attitude toward communication and decision making (p=0.006), and attitude toward gender equality in reproduction health (p=0.040). On the other hand, in the control group, there were no significant differences in the pre-test and post-test scores of reproductive health attitudes with p=0.150 and an increase in the mean of -2.05. However, there were significant differences between the scores of attitude on the aspect of self-esteem (p=0.007) of the control group based on Paired t-test analysis (Table 2).

Table 1: Characteristic frequency distribution of respondents (N = 93).

Characteristics	Intervention Group			Control Group			P
	f	%	Mean (SD)	f	%	Mean (SD)	
Age							
• 14 years	1	2,00		1	2,33		
• 15 years	21	42,00		21	48,84		
• 16 years	20	40,00	15,76	17	39,53	15,58	0,376
• 17 years	6	12,00	(0,92)	3	6,97	(0,76)	*
• 18 years	1	2,00		1	2,33		
• 19 years	1	2,00		0	0,00		
Total	50	100,00		43	100,00		
Age of menarche							
• 10 years	0	0,00		6	13,95		
• 11 years	5	10,00		5	11,63		
• 12 years	18	36,00		10	23,36		
• 13 years	18	36,00	12,70	12	27,91	12,42	0,542
• 14 years	8	16,00	(1,17)	7	16,28	(1,45)	*
• 15 years	0	0,000		3	6,97		
• 18 years	1	2,00		0	0,00		
Total	50	100,00		43	100,00		
Number of relationship experience							
• Not yet	10	20,00		7	16,28		
• 1-5	35	70,00		30	69,77		0,912
• 6-10	2	4,00		2	4,65		**
• >10	3	6,00		4	9,30		
Total	50	100,00		43	100,00		
Sexual activity experience							
• Not yet	24	48,00		16	37,21		0,339
• Low risk sexual activity	25	50,00		27	62,79		**
• High risk sexual activity	1	2,00		0	0,00		
Total	50	100,00		43	100,00		
Residence							
• With parents	43	86,00		39	90,70		
• With grandfather/grandmother	1	2,00		4	9,30		0,057
• In Islamic boarding school	5	10,00		0	0,00		**
• With others: family	1	2,00		0	0,00		
Total	50	100,00		43	100,00		
Experience of get sexual information form educator							
• Yes	45	90,00		35	81,40		0,233
• No	5	10,00		8	18,60		**
Total	50	100,00		43	100,00		
Experience of get sexual information form print media							
• Yes	0	0,00		3	6,98		0,095
• No	50	100,00		40	93,02		***
Total	50	100,00		43	100,00		
Experience of get sexual information form electronic media							
• Yes	15	30,00		18	41,86		0,233
• No	35	70,00		25	58,14		**
Total	50	100,00		43	100,00		

*Mann-Whitney Test, ** Chi-square test, ***Fisher Exact test

Comparison of mean scores of improvement of reproductive health attitudes between intervention and control groups

From Mann-Whitney test, it was found out that there were significant differences in the mean improvement of the scores of reproductive health attitude between the intervention with the control group with p=0.012. The increase in the mean score of reproductive health attitudes was higher in the intervention group, i.e. 3.88, while the decrease was in the control group, i.e. -2.05. Significant differences in the improvement of reproductive health attitudes of the intervention and control group showed that reproductive health education based on gender ideology effectively improved reproductive health attitudes (Table 3).

Table 2: Differences of reproductive health attitude scores before and after reproductive health education (N = 93).

Reproduction health education	Sub categories of sexual health attitude	Mean±SD		Δ Mean	p
		Pretest	Posttest		
Gender Ideology Based Reproductive Health Education (Intervention Group)	Attitude toward sexual activity	14,28±2,39	14,58±2,73	0,30	0,323**
	Attitude toward self-esteem	17,00±4,05	18,46±3,02	1,46	0,005**
	Attitude toward sexual behavior and sexual norm	14,24±2,54	14,28±2,23	0,04	0,796**
	Attitude toward communication and decision making	17,56±3,79	18,88±3,07	1,32	0,006**
	Attitude toward gender equality in reproduction health	13,92±2,23	14,68±1,46	0,76	0,040**
	Total	77,00±10,71	80,88±8,56	3,88	0,004*
Common Reproductive Health Education (Control Group)	Attitude toward sexual activity	13,11±2,30	12,98±2,18	-0,13	0,730*
	Attitude toward self-regard	16,19±4,16	14,51±4,62	-1,68	0,007*
	Attitude toward sexual behavior and sexual norm	12,72±2,13	12,42±2,39	-0,30	0,350*
	Attitude toward communication and decision making	16,65±3,09	16,72±3,61	0,07	0,881*
	Attitude toward gender equality in reproduction health	13,67±2,01	13,67±2,16	0,00	1,000*
	Total	72,35±10,35	70,30±12,47	-2,05	0,150*

*Paired t-test, **Wilcoxon test

Comparison of Mean Scores of Improvement of Reproductive Health Attitudes between Intervention and Control Groups From Mann-Whitney test, it was found out that there were significant differences in the mean improvement of the scores of reproductive health attitude between the intervention with the control group with p=0.012. The increase in the mean score of reproductive health attitudes was higher in the intervention group, i.e. 3.88, while the decrease was in the control group, i.e. -2.05. Significant differences in the improvement of reproductive health attitudes of the intervention and control group showed that reproductive health education based on gender ideology effectively improved reproductive health attitudes (Table 3).

DISCUSSION

Reproductive health education in schools effectively affects students' attitudes when it is given before they first experience sexual activity.[16] That is because adolescent is a critical age that needs interventions to shape their attitudes in interacting, especially at the beginning of a romantic relationship.[13] The average age of the respondents in the intervention group was 15.76 years, and the one if the control group was 15.58 years in which they are in the exploration stage of a romantic relationship.

In this research, reproductive health education based on gender ideology is effective in improving the reproductive health attitudes, especially the attitudes on the aspects of self-esteem, communication and decision-making, and gender equality in sexuality. Adolescents who are given regular reproductive health education only show significant differences in the attitudes on the aspects of self-esteem. Rights-based reproductive health education shapes reproductive health attitudes needed to determine and enjoy sexuality, shape assertiveness, be self-respectful, non-judgmental, and responsible.[5]

Such changes will remain for 3 months after intervention.[13]

This research shows that there were significant differences in the increase in the mean scores of reproductive health attitudes between the intervention and control groups, indicating that reproductive health education based on gender ideology is more effective in improving reproductive health attitudes. The increase in the mean score of reproductive health attitudes was higher in adolescents given reproductive health education

based on gender ideology in the intervention group that is 3,88, and there was a decline in the score of the group given regular reproductive health education. Reproductive health education that focuses on a specific gender and discusses gender equality is more effective in preventing sexually violent behavior.[13] This is because adolescents are assisted to develop healthy sexual attitudes and behaviors.[17]

Table 3: Differences in improvement of reproductive health attitudes based on types of reproductive health education (N = 93).

Groups	Δ Mean (SD)	Δ Mean	p
Gender Ideology Based Reproductive Health Education	3,88 (9,14)	5,93	0,012*
Common Reproductive Health Education	-2,05 (9,14)		

*Mann-Whitney-test

Adolescents who do not understand gender equality have more risks of sexually deviant behaviour because sexual discrimination may occur in which men are considered as the dominant, assertive, and aggressive side, while women are more submissive, passive, and assertive. Such gender roles cause pressures on adolescent boys to prove their masculinity and adolescent girls to accept the imposition of sexual activity, so that it shapes sexual attitudes and behaviours that tend to lead to violence.[11] Adolescent girls are vulnerable to undergo premarital sexual coercion. Moreover, gender roles becomes reasons for adolescents to become sexually active, i.e. adolescent boys state that they conduct sexual intercourse because of curiosity and comfort, while girls want to prove love and acceptance. Such traditional gender norms encourage early sexual activity, tendency to have more couples, and low use of contraceptives. However, some society members reject the existence of gender equality, put gender on a superficial position, position gender study at the end part, and do not discuss gender in depth.[11]

Premarital sexual activity is considered normal in adolescent boys, while the girls tend to be labelled, given a negative stigma, and blamed when experiencing an unwanted pregnancy or a sexually transmitted disease so that boys are more active and permissive in sexuality. This way, a health education that matches the needs of specific age and gender will lead to positive and adaptive changes in sexual attitudes.[18] Adolescents experience rapid and extreme emotional changes, as well as negative mood influenced by hormonal and environmental changes. Based on the development of romantic relationships, at the age of 11-13 years, adolescents started to be interested in a romantic relationship; at the age of 14-16 years, in exploring a romantic relationship; and at the age of 17-19 years, in strengthening the bond of romantic partner. The high frequency of dating is associated with depressive symptoms and the absence of parents' emotionally.[19]

In fact, adolescents are in the age with a very high risk of sexually deviant behaviour because they have physically experienced sexual maturity, have psychologically attracted to the opposite sex, and have had fluctuating emotions, so that they require reproduction health information which is accurate and complete, based on the development, and from the right source. Adolescents are more exposed to sexual information as they grow older, while negative information from mass media shapes the attitudes and beliefs in early initiation of sexual activity, permissive sexual norms, and earlier prediction of sexual behavior.[20] An improper way of giving sexual information causes free sex behaviour, accelerates early age of being sexually active, and encourages high-risk sexual behaviour because the knowledge is not accurate.[21] Exposure to media influences the shaping of behaviour because adolescents try to imitate or try.[22] The reproductive health education based on gender ideology in this research links reproductive health with a social problem of gender inequality presented in group discussions and lectures by experts and proven to be effective in improving reproductive health attitudes. Comprehensive reproductive health education can a change in cognitive levels in the form of an attitude that they need in sexual life.[5,23] Reproductive health's which introduces, elaborates, and changes social roles based on gender will influence sexual behavior.[11]

CONCLUSION

Based on the results of this research, it can be concluded that reproductive health education based on gender ideology affects the improvement of adolescents' reproductive health attitudes. It is suggested to the nursing profession to link to gender issues in the development of adolescents' reproductive health education materials. Schools, local health centres, the Department of Education, and the Department of Health are expected to consider the use of gender ideology material on the development of adolescents' reproductive health materials, to carry out a more regular health education, and to conduct evaluation. Further research on reproductive health education based on gender ideology with specific material for adolescent boys is needed.

ACKNOWLEDGEMENTS

The researchers would like to thank all those who have helped in conducting this research, especially to students and families of SMK N 1 Nanggulan, SMK N 1 Temon, SMK Ma'Arif 1 Temon, and SMK Muhammadiyah 1 Temon who have participated in the research.

Funding: No funding sources
Conflict of interest: None declared

Ethical approval: The study was approved by Medical and Health Research Ethics Committee (MHREC) Faculty of Medicine Universitas Gadjah Mada

REFERENCES

1. Hashmi S. Adolescence: An Age of Storm and Stress. Review of Arts and Humanities. 2013;2(1).
2. Batubara JRL. Adolescent Development (Perkembangan Remaja). Sari Pediatri 2010;12(1):21-9.
3. World Health Organization. Health for the World's Adolescents: A second chance in the second decade. Report by the Secretariat. Geneva: World Health Organization, 2014.
4. Loaiza E, Liang M. Adolescent Pregnancy: A Review of the Evidence. New York, UNFPA, 2013.
5. International Planned Parenthood Federation. From choice, a world of possibilities: IPPF framework for comprehensive Sexuality Education (CSE). UK: The International Planned Parenthood Federation, 2010.
6. Utomo ID, Utomo A. Adolescent Pregnancy in Indonesia: A Literatur Review. World Population Day 2013. The Australian National University, Ausralian Demographic and Socail Research Institute, 2013.
7. Kalichman SC, Simbayi LC, Jooste S, Mathiti V, Cherry C, Cain D, et al. Gender Attitudes, Sexual Violence, and HIV/AIDS Risks among Men and Women in Cape Town, South Africa. CT: The Journal of Sex Research. 2002;42(4):299-305.
8. Women's and Community's Empowerment Agency. Profil Gender Dan Anak Provinsi Daerah Istimewa Yogyakarta tahun 2011. Daerah Istimewa Yogyakarta Province: Women's and Community's Empowerment Agency, 2011.
9. Idele P, Gillespie A, Porth T, Suzuki C, Mahy M, Kasedde S, et al. Epidemiology of HIV and AIDS Among Adolescents: Current Status, Inequities, and Data Gaps. J Acquir Immune Defic Syndr. 2014;66 (Suplement 2).
10. Muhanguzi FK. Gender and sexual vulnerability of young women in Africa: experiences of young girls in secondary schools in Uganda. Uganda: Department of Women and Gender Studies, Makerere University, Kampala. Culture, Health & Sexuality. 2011;13(6):713-25.
11. Timreck E. Placing Gender at the Heart Of Sexuality Education. SIECUS Report. ProQuest Research Library. 2004;32:3.
12. BKKBN and UNESCO. Bimbingan Teknis Kesehatan Reproduksi dan seksualitas Yang Komprehensif yang di adaptasi oleh BKKBN dari UNESCO. Jakarta: The representative office of UNESCO (Bureau of Asian and Pacific Science), 2012.
13. Kernsmith PD, Jozefowics DMH. A gender sensitive Peer Education Program for Sexual Assault Prevention in the Schools. Children Schools. 2011;33(3):146-57.
14. Allen L. Poles apart? Gender differences in proposals for sexuality education content. Gender and Education. 2008;20(5):435-50.
15. Suparjo WD. Kespro masuk Mapel Ekstrakurikuler SMP/SMA di Kulon Progo, 2014. Yogyakarta: KBRN. Available at: http://rri.co.id/yogyakarta/post/berita/98748/pendidikan/kespro_masuk_mapel_ekstrakulikuler_smpsma_di_kulon_progo.html, Accessed on November 5, 2014.
16. Reis M, Ramiro L, Matos MG, Diniz JA. Nationwide survey of contraceptive and sexually transmitted infection knowledge, attitudes and skills of university students in Portugal. International Journal of Clinical and Health Psychology. 2013;13:127-37.
17. Klein SS. Sex Education and Gender Equity. Educational Leadership, 1988.
18. Ojo AA. Age and Gender Differences in Premarital Sexual Attitudes of Young People in South West Nigeria. Gender & Behaviour. 2014;12(2):6301-11.
19. Santrock JW. Masa Perkembangan Anak Edisi 11 Buku 2. Jakarta: Salemba Humanika, 2011.
20. Parkes A, Wight D, Hunt K, Henderson M, Sargent J. Are sexual media exposure, parental restrictions on media use and co-viewing TV and DVDs with parents and friends associated with teenagers' early sexual behaviour? Journal of Adolescence. 2013;36:1121-33.
21. Saputra D. Pengetahuan kesehatan reproduksi dan perilaku pacaran di kalangan remaja Sumatera Selatan. BKKBN of the province of South Sumatra: Jurnal Pembangunan Manusia. 2013;7(2)3.
22. Samino. 2012. Analisis Perilaku Sex Remaja SMAN 14 Bandar Lampung 2011. Jurnal Dunia Kesmas Volume 1. Nomor 4. Oktober 2012.
23. Givaudan M, Poortinga YH, Vijver F, Leenen I, Pick S. Effects of a School-Based Life Skills and HIV-Prevention Program for Adolescents in Mexican High Schools. Journal of Applied Social Psychology. 2007;37(6):1141-62.

Cite this article as: Parmavati I, Emilia O, Nisman WA. The effect of gender based sexual health education in promoting adolescent girls sexual health attitude. Int J Res Med Sci 2015;3:2780-5.