

Original Research Article

Knowledge and attitudes of elementary students about reproductive health (preliminary study on elementary school in Brebes district, Central Java, Indonesia)

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ABSTRACT

Background: Knowledge of elementary students about reproductive health in Indonesia still lack. There are so many students who did not know how to maintain good reproductive health. Efforts to give lessons reproductive health or sex education to elementary school age children today is still considering taboo, but this problem should be anticipated as soon as possible. To decrease maternal mortality rate and unmet-need needs innovation to educate students. Education about reproductive health is one of strategic ways to increase elementary students' knowledge and attitudes about reproductive health. This study conducted to evaluate effect of reproductive health education and provision of media on elementary students in Brebes.

Methods: This study utilized quasi experimental pre and post-test one group design. Population of these study 70 elementary students (3 Government ES) in Brebes.

Results: Based on the results of different test with Wilcoxon Match paired Test obtained were significant differences between the respondents' knowledge and attitudes before and after reproductive health education and provision of media ($p=0.001$).

Conclusions: That means there were significant interventions in the form of education and provision of media to increase knowledge and attitudes of respondent about reproductive health. The results demonstrate that interventions can significantly improve knowledge and attitudes of respondents ($p<0.005$; Delta: 19.82). Recommendation to improve risk of maternal mortality rate is a reproductive health education with early intervention in young elementary school age children as one of strategic actions to improving knowledge and minimize incidence of teenage pregnancy.

Keywords: Knowledge, Attitudes, Education, Elementary students, Reproductive health

INTRODUCTION

Reproductive health in Indonesia still lack. This is shown by a high of maternal mortality rate (MMR) in Indonesia 229 per 100 thousand live births (133-379) in 2008.¹⁻³ Maternal mortality in Brebes highest in Central Java. One of the causes of death among these pregnancies at a young age. Data marriage in Brebes 2015 showing that

40% of weddings between 13 to 18 years, and 70% of them because of teenage pregnancy. Teenage pregnancy caused lack of information about reproductive health in young generation including elementary school age children, many marriages occurred after they finish, even unfinished. There are so many students who did not know how to maintain good reproductive health. The problem is media or tools in reproductive health education very

limited, students confusing when encountering a variety of issues related to reproductive health, sexuality, maturation process, etc.

Class IV, V and VI elementary school is a transition period between childhood and adolescence, quality of life for the next generation so that puts as a critical period. In developing countries of this transition took place very quickly. Even the age at first sex always turning out to be younger than ideal age to get married. The influence of global information (audio-visual media exposure) are more easily accessible. In the end, cumulatively these habits will accelerate the early age of sexually active and deliver them to sexual behavior risk, because most of students did not have accurate knowledge about reproductive health, sexuality, maturation process, and did not have access to information and reproductive health services, including contraceptives. Needs and types of reproductive health risks nearby young people have different features from children or adults. Types of reproductive health risks, including: pregnancy, abortion, sexually transmitted diseases (STDs), sexual violence, as well as the problem of limit access to information and health services.^{4,5} This risk cause of a variety of interrelated factors, namely the demand for early marriage and sexual relationships, access to education and employment, gender inequality, sexual violence and the influence of mass media and lifestyle.

Based on that background and literature, a problem of Indonesia which quite a lot contributed to high maternal mortality rate, lack of reproductive health education during children, adolescence or before marriage (the bride), lack of knowledge about early detection of pregnancy risk, as well as delays in referral to mothers with high risk.^{6,7} Efforts to give lessons reproductive health or sex education to elementary school age children today is still considered taboo, so we must anticipate as soon as possible. To decrease maternal mortality rate and unmet need needs innovation to educate students. Education about reproductive health is one of strategic ways to increase elementary students' knowledge and attitudes about reproductive health. This study conducted to evaluate an effect of reproductive health education provision of media on elementary students in Brebes.

METHODS

This study utilized the quasi experimental pre and post-test one group design, as a preliminary study to analyze an effect of reproductive health education and provision of media on elementary students in Brebes during January until December 2017.

The population of this study elementary students. Study was conducted in Central Java province with high absolute MMR in Indonesia, especially in the district of Brebes. The study was restricted to only three government elementary school students due to easy

permission from managements. Sample number of 70 students studied.

Inclusion criteria

Inclusion criteria were age group: 10 to 15 years; class level: 4 and 5 elementary school.

Exclusion criteria

The exclusion criterion for this study were nil.

Closed-questionnaire needs to measure reproductive health knowledge and attitudes on elementary students which is filled with their own.

Data analysis

The data was analysed using Wilcoxon match paired test. Before carrying out this study the research protocol was approved by Ethics committee of the Faculty of Public Health, Diponegoro University.

RESULTS

Knowledge of elementary students

Both data group is a group of data pairs. Normality test results obtained are not normally distributed variables both normal (total pre-test $p=0.001$) and the distribution is not normal (total post-test $p=0.001$), so it can be different from a non-parametric test. Based on the results of different test with Wilcoxon match paired test obtained were significant differences between the respondents' knowledge before and after reproductive health education and provision of media ($p=0.001$). That means there was significant interventions in the form of education and provision of media to increase knowledge of respondents about reproductive health. The results demonstrate that interventions can significantly improve knowledge of respondents ($p<0.005$; Delta: 3.22).

Attitudes of elementary students

Based on the results of different test with Wilcoxon Match paired test obtained were significant differences between the respondents' attitude before and after reproductive health education and provision of media ($p=0.001$). That means there was significant interventions in the form of education and provision of media to increase attitude of respondents about reproductive health. The results demonstrate that interventions can significantly improve attitude of respondents ($p<0.005$; Delta: 16.6).

Knowledge and attitudes of elementary students

Based on the results of different test with Wilcoxon Match paired Test obtained were significant differences between the respondents' knowledge and attitudes before

and after reproductive health education and provision of media ($p=0.001$). That means there were significant interventions in the form of education and provision of media to increase knowledge and attitude of respondents

about reproductive health. The results demonstrate that interventions can significantly improve knowledge and attitude of respondents ($p<0.005$; Delta: 19.82).

Table 1: Differences score knowledge of elementary students in Brebes district.

Respondents knowledge about reproductive health	Before intervention		After intervention	
	N	%	N	%
Have right answers less than or equal 75%	60	85.7	19	27.1
Have right answers more than 75%	10	14.3	51	72.9
Total score	70	100	70	100
Mean	6.52		9.74	
SD	2.06		2.02	
Min. score	3		2	
Max. score	11		12	
Wilcoxon test	$p=0.001/<0.005$; Delta : 3.22			

Table 2: Differences score attitudes of elementary students in Brebes district.

Respondents attitudes about reproductive health	Before intervention		After intervention	
	N	%	N	%
Have right answers less than or equal 75%	55	78.6	9	12.9
Have right answers more than 75%	15	21.4	61	87.1
Total score	70	100	70	100
Mean	10.4		27.00	
SD	9.71		6.74	
Min. score	0		3	
Max. score	30		32	
Wilcoxon test	$p=0.001/<0.005$; Delta: 16.6			

Table 3: Differences score knowledge and attitudes of elementary students in Brebes district.

Respondents knowledge and attitudes about reproductive health	Before intervention		After intervention	
	N	%	N	%
Have right answers less than or equal 75%	58	82.9	11	15.7
Have right answers more than 75%	12	17.1	61	84.3
Total score	70	100	70	100
Mean	16.92		36.74	
SD	11.09		7.87	
Min. score	3		5	
Max. score	41		43	
Wilcoxon test	$p=0.001/<0.005$; Delta: 19.82			

DISCUSSION

Basically, when entering a teenage period, adolescents face health risks, one of them is reproductive health. Adolescent reproductive health evident in their early pregnancy, abortion, sexually transmitted diseases including HIV/AIDS and sexual violence. Adolescent reproductive health status is supported also by the problem of nutrition, health, psychological, economic and gender inequalities that make it difficult for young women to avoid sexual intercourse imposed or commercial sex. International Conference on Population and Development (ICPD) in 1994 to encourage the

government and community to develop a program to address an issue of sexual and reproductive students.⁶⁻⁸ ICPD recommends essential services that should be highlighted include reproductive health information and counseling; clinical services for students; advisory services relating to the relationship between gender, violence, responsible sexual behavior and sexually transmitted diseases; as well as the prevention and treatment of sexual abuse.

Before counseling and provision of reproductive health media, elementary students' knowledge in Brebes were good but still there was less knowledge.

After counseling and provision of reproductive health media, knowledge has increased but there was lack of knowledge about type of physical changes, especially in males.

Reproductive health education was needed to improve students' knowledge and attitude about sexuality and decision making related the future plan of the students.

Prior attitude of elementary students in Brebes, mostly good practice but there was attitude that must educate, behaviors that need to educate is how to be a healthy child

After counseling and provision of material, elementary students in Brebes mostly have a good practice, but there was attitude that must educate continually.

Based on study there was a significant difference between knowledge of elementary students executed before and after counseling and provision of material ($p=0.001$). There was a significant difference between attitudes of elementary students executed before and after counseling and provision of material ($p=0.001$). There was a significant difference between total knowledge and attitudes of elementary students executed before and after counseling and the provision of material ($p=0.001$).

These findings are related with this literary, elementary student have special sexual and reproductive health needs, students' needs to know a definition of reproductive system, reproductive health on male and female, important of reproductive health.⁹

In 2011, the World Health Organization (WHO) issued guidelines on preventing early pregnancy and poor reproductive outcomes in adolescents from LMICs focusing on four major pregnancy prevention outcomes: (1) increasing access to and use of contraception; (2) preventing marriage before 18 years; (3) increasing knowledge and understanding of the importance of early pregnancy prevention; and (4) preventing coerced sex.¹⁰

Also, a study by United Nations Fund for Population Activities, confirmed that knowledge of reproductive health, physically changes of female, physically changes of male, physically protection could remain unmet, mainly due to lack of knowledge, social stigma, laws and policies preventing provision of contraception and abortion to unmarried (or any) adolescents, and judgmental attitudes among service providers.¹¹

In Haldre et al, dressing attitude, media for children, good attitude for children, to be healthy children education, counseling and provision of media could improving knowledge and attitude of elementary students, could minimize causes of death during pregnancy, childbirth and immediately after delivery.¹² Besides, with very swift currents of globalization, the rise of impression exposures adults in cyberspace, as well as situations conducive to

support free relationship, increased abortion, drug abuse and incidence of HIV/AIDS, is a threat to youth, especially girls who are generally not yet ready reproductive health to have a risk of death.¹³ Teenage pregnancy carries high risks, both for a mother, fetus, and baby. Globally, around 50,000 teenage girls die each year during pregnancy and childbirth and latest available estimates suggest around 1 million babies born to adolescent girls die before their first birthday.^{7,14}

Socialization and follow-up of local government instruction regent regional Brebes, if possible will be forwarded to Governor instruction and instruction of National Education Minister on obligation of reproductive health education for junior and high school students. Instructions will be forwarded to regional leaders in order to allocate a portion of budget funds, for a provision of teacher training roadshow family planning and reproductive health peer educator. Publication in the Journal of National Scientific and International accredited, Textbook and Workshop on Adolescent reproductive health. The effectiveness of reproductive health education depended on teachers, strategy, and method of teaching used by teachers.

The inclusion of this information is also important given that sexual double standards, harassment, sexual assault, and crime continue as a partial result of a deep gender gap between females and males. Effective sex and relationship education (SRE) and family planning services should be readily accessible and available to all young people. Specialist antenatal services for teenagers should be provided to raise awareness and reduce complications associated with teenage pregnancy, e.g. preterm birth, low birth weight, stillbirth and neonatal death.¹⁴

Early marriage and early marital sexual activity present reproductive health risks for young women.¹⁵ Early marriage can lead to pregnancies that put young women at risk for obstetric fistulae and can be a risk factor for HIV infection.¹⁶ Teenagers have sexual experiences including sexual violence. Both of these phenomena are prevalent among school-going adolescents before they have had appropriate knowledge about reproductive health, thereby putting them at great risk.¹⁷ Adolescent sexual activity, within or outside of marriage, can lead to negative reproductive health outcomes.¹⁷

To address an unmet need among adolescents, it is necessary to understand which strategies work to increase contraceptive behaviors among this age group and to identify gaps in evidence based for future research.^{18,19}

In Andrade et al, an in-school sexual reproductive health education program focused on adult-child relationship by training and encouraging teachers in order to improve connectedness with students. Teachers trained to counsel adolescents and their parents about sexual reproductive health issues.²⁰

These findings are consistent with the findings of other school-based studies among junior high school students in Malaysia, that was effective in enhancing sexual health knowledge, creating a positive attitude toward sexuality, and fostering among students in intervention group the intention to refuse to take sexual risks.²¹ Also, a study by Bleakley confirmed that adolescents obtained sexual information from friends, teachers, parents, and media.²² This finding agreed with a study by Madeni, which showed an increase in adolescents' knowledge and behavior about sexuality, but there was no significant difference in attitude at pre-test and post-test.⁸ They suggested that attitudes may be difficult to change. The main reasons oral and anal sex in adolescents based on Cherie negative attitude about oral and anal sex, low college aspirations and low self-esteem were individual level predictors of oral and anal sex.²³ Students who perceive their best friends engage in oral and anal sex were highly likely to involve in oral and anal sexual activity.²⁴ Study of Rusmilawaty in Banjarmasin, Indonesia also reported that communication of parents and sexual content intake affected teenage sexual behavior, a good communication of parents and low intake of sexual content may give a protection against risky sexual behavior among teenagers.²⁵ And a study in Yogyakarta, Indonesia found that factors significantly related to risky sexual behavior among teenagers are male sex, negative attitude, and influence of peers.²⁶ Health agency and preliminary health care should improve counseling programs for teenagers and train peer counselors.²⁷

CONCLUSION

The results demonstrate that there was a lack of knowledge and attitude on elementary students about reproductive health in Brebes. Reproductive health education needs to improve students' knowledge and attitude about sexuality and decision making related to the future plan of the students. If elementary students have a better understanding of reproductive health, sexuality, and gender, upcoming younger generations would understand risks involved in unsafe sex and unmet-need. Shared responsibility for reproductive health matters by males (boys) and females (girls) would also be made a greater possibility. Recommendation for the Department of Health and relevant institutions need their continuous efforts in improving knowledge of children, especially elementary school children about reproductive health early to increasing knowledge of elementary school children related to reproductive health provide continuous counseling to elementary students.

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