

“WOMEN WON’T GET PREGNANT WITH ONE SEXUAL INTERCOURSE” MISCONCEPTIONS IN REPRODUCTIVE HEALTH KNOWLEDGE AMONG INDONESIAN YOUNG MEN

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Abstract:

Adolescents’ reproductive health in Indonesia is of growing concern. Over the past decade, unintended pregnancy resulted from pre-marital sexual intercourse and unsafe sex behaviors tend to be increasing. Lack of reproductive health knowledge was a major cause of such risky behavior. With regards to Indonesian culture, men are more likely to initiate sexual intercourse. Therefore, this study aimed to examine the reproductive health knowledge of Indonesian young men and its determinants. Findings are expected to support the provision of reproductive health education for young people in Indonesia. The present study employed secondary data from Adolescents Reproductive Health component of the Indonesian Demographic and Health Survey 2012. A total of 1,840 census blocks in 874 urban and 966 rural areas were selected from the list of census blocks in the selected primary sampling units formed during the 2010 population census. A total of 10,980 never-married men aged 15 to 24 years old was selected for analysis. Only 28.5% of Indonesian young men aged 15-24 had a complete reproductive health knowledge related to pregnancy. Half of respondents had incorrect knowledge regarding fertile period and more than half (51.3%) believed incorrectly that pregnancy cannot occur with only one sexual intercourse. School-related variables were the strongest predictors of knowledge. Those who completed their education at secondary level or more, and those who obtained reproductive health lessons at school were more likely to have a complete reproductive health knowledge. Having a reference person to talk about reproductive health matters was also a strong predictor for knowledge, followed by access to reproductive health media and place of residence. In conclusion, the study indicates that most of Indonesian young men lacked health knowledge related to pregnancy. The findings also suggest that schools were able to provide a good quality of reproductive health information for young people. Therefore, providing an adequate reproductive health education at school is strongly recommended.

Keywords: Knowledge, Reproductive health, Adolescents health, Indonesia

Received April 2014; Accepted July 2014

INTRODUCTION

Adolescents’ reproductive health in Indonesia is of growing concern today. Over the past decade, unintended pregnancy resulted from pre-marital sexual intercourse and unsafe sex behaviors tends to be increasing. Of 2.4 million abortion cases reported annually, 30% occurred among teenagers [1, 2]. This figure somehow revealed that Indonesian

young people nowadays becoming more permissive. Dating experiences of young people are no longer holding hands or kissing only, but way further to necking, petting and sexual intercourse. Indonesian Young Adult Reproductive Health Survey found, the percentages of Indonesian young men who openly reported their sexual experience was increased, from 5% in 2002 to 6% in 2007 and 8% in 2012, whilst among women, the percentages was relatively stable on 1% throughout the three surveys [3-5].

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Cite this article as:

Widyastari DA, Isarabhakdi P, Shaluhiah Z. “Women won’t get pregnant with one sexual intercourse” misconceptions in reproductive health knowledge among Indonesian young men. *J Health Res.* 2015; 29(1): 63-9.

It should be noted however, due to its sensitivity, premarital sexual behavior of adolescents tends to be under-reported. The findings of small-scale studies on adolescents' sexual attitudes and behavior in many parts of Indonesia showed a wide range of premarital sexual incidence. Micro studies in Central Java found, approximately 5 to 20 percent adolescents in Semarang and other urban Central Java had engaged to premarital sex [6-10]. A larger scale study involved 1,000 young people in urban Central Java found, eighteen percent of males and six percent of females of Central Java's youth had engaged to premarital sexual intercourse [11]. In outer Java, the number of adolescents who reported engaged in risky sexual practices was even higher. Scholars found, 27% of males and 9% of females adolescents in Medan, North Sumatra had sex before marriage, whilst in Padang, West Sumatera, 16.6% of senior students engaged in unsafe sexual behaviour. In West Papua, the most western of Indonesia, 38% of senior high school students had pre-marital sex [12, 13].

Adolescents sexual attitudes and behaviors determined by a complex array of individual and social factors. Knowledge, self-efficacy, parental supports or family relation, peer and media influence were often found as strong predictors of adolescents sexual behavior. Of those, knowledge was found as a consistent predictor. Adolescents risky behaviour mainly caused by the lack of reproductive health information which failed to be provided by parents or schools [12, 14-17].

With regards to Indonesian culture, discussion about sex among unmarried young people is considered taboo [16]. It is not surprising then, the provision of sexual and reproductive health education at schools remains a controversy. Policy makers reluctant to provide sex education at schools because they believed it will lead the youngsters to engage in risky sexual behavior earlier. As a result, reproductive health education is given integrated to existing school curricula such as biology or science, population education, sport and religion [13, 18]. Consequently, it counted for less than 10 percent of total meetings, and mostly covered anatomy-physiology of reproductive organs only. In the absence of trustworthy information from their nearest adults, adolescents then try to find out by themselves, through their peer and media [4, 5, 19-21]. Thus become a source of concern since in many cases, information provided by peer and media were not intentionally to be educational [19, 22].

When the Indonesian government continue to

treat Indonesian youth as non-sexual being, adolescents continue to practice unsafe sex. The number of adolescents engaged in premarital sexual intercourse gradually increased and some of them ended up in induced abortion. Once again, low level of reproductive health knowledge was proven as the major cause [13]. If only Indonesian government agreed to provide adequate reproductive health information at schools, adolescents would have qualified information and they will be able to prevent themselves from unsafe sexual behaviour. Scholars found that adolescents who were given good reproductive health information showed an increasing of reproductive health knowledge and were less likely to engage in risky sexual practice [17, 23].

To date, there have been bulk of evidences regarding adolescents reproductive health and their sexual behaviour, including the consequences followed. Nevertheless, adolescents reproductive health knowledge and how it was formed seems to be neglected. The importance to discuss knowledge is even more higher when considering the occurrence of misconceptions and myths related to the risk of pregnancy over the past years. Numbers of adolescents believe that it is impossible for a woman to become pregnant with one sexual intercourse, or if the girl urinates after sex. Some of them also believe that pregnancy can be avoided if a woman washes her vagina or jumps up and down like a frog after intercourse [11, 24, 25]. It should be a concern since these false beliefs put women at higher risk of pregnancy, as they believe they are taking precautions to prevent conception. And given the fact that men are more likely the one who initiate sexual intercourse, therefore, this study aims to examine the reproductive health knowledge of Indonesian young men and its determinants. It is expected, the result of the study will provide a strong evidence for the policy makers to provide an adequate reproductive health education for young people in Indonesia.

MATERIALS AND METHOD

The present study employed secondary data from Adolescents Reproductive Health (ARH) section, a part of Indonesian Demographic and Health Survey (IDHS) 2012, conducted by Statistic Indonesia in collaboration with National Population and Family Planning Board, Ministry of Health, MEASURE DHS and ICF International, Calverton, Maryland, USA.

Population of IDHS was 15-49 years old women and 15-54 years old men in urban and rural areas of 33 provinces in Indonesia. A total of 1,840

census blocks in 874 urban and 966 rural areas were selected from the list of census blocks in the selected primary sampling units formed during 2010 population census. Sample was stratified by province and urban-rural areas. The selected CBs were then allocated to each stratum, to be included in the second stage sampling. An average of 25 households was selected systematically [3].

ARH component of the 2012 IDHS focuses on never married women and men age 15-24. Based on the result of 2010 population census, 40.4 million youth age 15-24 were reported living in Indonesia. Of those, 16.6 million were unmarried male and 12.8 million were unmarried female. Following IDHS census blocks, a total of 46,024 households were selected for ARH sample, of which 43,852 successfully interviewed. In the interview households, 9,442 never-married female and 12,381 never-married male were identified. Of those, 8,902 women and 10,980 men age 15-24 were eligible for interview. For this paper, only 15-24 never-married men were selected for analysis.

The conceptual framework of this paper is drawn partly from Social Cognitive Theory proposed by Albert Bandura. Social cognitive theory favors a model of causation involving triadic reciprocal determinism in which behavior, cognition and other personal factors, and environmental influences all operate as interacting determinants that influence each other bi-directionally [26, 27]. Although this paper only focus to knowledge as determinant factor of adolescents' behavior, the component of Social Cognitive Theory such as personal factors (age, education) and environmental factors (friends, media, school) is expected to influence the cognitive aspect of adolescents, and in turn will affect their behaviour reciprocally.

Reproductive health knowledge related to pregnancy was set as dependent variable, consisted of two questions related to fertile period and misconception regarding the risk of pregnancy with only one sexual intercourse. Independent variables comprise of socio-demographic characteristics of respondents such as type of residence, age and occupation. School related variables consisted of educational attainment and reproductive health information from schools. Social and environmental supports reflected in the exposure of mass media and having reference person to discuss reproductive health matters. Chi-square test and logistic regression analysis was performed to examine the

association between variables and to estimate the best predictor of reproductive health knowledge of Indonesian young men from 2012 IDHS.

RESULT

Indonesian young men characteristics

The respondents of the present study comprised of 15 to 24 years old Indonesian young men. Of those, more than half were early adolescents aged 15 to 18. The proportion of Indonesian young men in the 2012 IDHS who live in the urban was slightly higher compared to rural area (54.1 and 45.9%, respectively). Most of them (48%) completed their education at secondary level, or more (37%). One third of respondents were not working at the last 12 months preceding the survey. Of those who currently working, most of them were working in industry (26.8%) and agriculture (15%). Few of them working in the area of sales (9.3%), providing services (7.3%), clerical (2.6%), or professional (3.2%).

Access to reproductive health information

Given the fact that most of respondents were school aged or just finished secondary schools, their information related to reproductive health were mostly derived from human reproductive system lessons provided by schools. Nevertheless, 19% never had any reproductive health lessons at schools. Beside schools, friends is one of important source of reproductive health information for adolescents. Indonesian young men were more likely to talk to their friends about their puberty experiences. However, the discussions were less likely to occur until they experience their first wet dream. Of those who have talked about puberty before their first encounter, 48% talked to their friends and 18% to their teachers.

In terms of media, Indonesian young men were less likely to use printed media to access reproductive health information. During the last 6 months preceding the survey, only 12.5% read about pregnancy prevention or family planning. Radio also was not the preference media since television becoming more prominent in adolescents' life. More than half of young men in the survey watched condom advertisements and 33% obtained pregnancy precaution informations from the TV.

Reproductive health knowledge

As many studies found, reproductive health knowledge regarding the pubertal signs of

Table 1 Indonesian young men's reproductive health knowledge related to pregnancy

Variables	%		<i>p</i> -value
	Incomplete RH knowledge (n = 7,847)	Complete RH knowledge (n = 3,133)	
Type of residence			
Rural	49.7	36.5	0.000*
Urban	50.3	63.5	
Age (years)			
15-18	54.7	43.0	0.000*
19-24	45.3	57.0	
Highest level of education			
No education	0.9	0.2	0.000*
Some primary	6.4	1.5	
Complete primary	9.1	3.8	
Some secondary	52.3	40.0	
Secondary+	31.2	54.4	
Having anyone talk to discuss reproductive health matters			
No	54.2	34.3	0.000*
Yes	45.8	65.7	
Obtained human reproductive system lessons at schools			
No	27.8	10.8	0.000*
Yes	72.2	89.2	
Access to reproductive health media (printed, radio, television)			
No	43.9	23.6	0.000*
Yes	56.1	76.4	

* variables significant at *p*-value <0.01

Table 2 Determinant of reproductive health knowledge of Indonesian young men

Variables	Sig	Exp (B)	95% CI	
			Lower	Upper
Type of residence	0.000	1.194	1.089	1.309
Age	0.002	1.180	1.062	1.311
Highest level of education				
No education	-	-	-	-
Some primary	0.703	0.849	0.367	1.964
Complete primary	0.699	1.173	0.523	2.634
Some secondary	0.423	1.385	0.625	3.070
Secondary+	0.043	2.281	1.026	5.069
Having anyone to discuss reproductive health matters	0.000	1.725	1.576	1.889
Obtained human reproductive system lessons at schools	0.000	1.896	1.614	2.164
Access to reproductive health media (printed, radio, television)	0.000	1.668	1.508	1.846

adolescents showed a good result. In the 2012 IDHS, knowledge related to pubertal signs was asked by encouraging the respondents to provide spontaneous response related physical changes that boys or girls experienced during their puberty. Indonesian young men recognized growth of facial, pubic or other hair as the most common pubertal signs on boys beside wet dream and growth of Adam's apple, whilst on girls, these young men recognized menstruation and growth in breast.

Unlike knowledge related to pubertal signs, the majority of respondents had incorrect knowledge regarding fertile period and the risk of pregnancy. Therefore, the discussion of knowledge in this paper will be focused on the reproductive health

knowledge related to pregnancy.

About a half of respondents had an incorrect knowledge that a woman fertile period is right after her period (50%) or just before her period (11%). Only 18% of Indonesian young men provided the correct response that a woman may have a bigger chance to pregnant on the half way between her periods. Incorrect knowledge also shown by the respondents' misconception on the risk of becoming pregnant after one instance of sexual intercourse. Although almost half of respondents (48%) responded correctly, however, the cumulative percentage of respondents who have incorrect knowledge and don't know should be a concern because this false belief may put women in greater risk of unwanted pregnancy.

Determinants of reproductive health knowledge of Indonesian young men

Of two questions posed related to pregnancy, only 28.5% of Indonesian young men had a complete understanding of reproductive health knowledge. Proportion of Indonesian young men who had a complete reproductive health knowledge related to pregnancy is likely to be higher among urban, older and those who completed their education at secondary level or more, as shown by the cross-tabulation between knowledge and independent variables (Table 1). The bivariate analysis showed that place of residence, age, highest education completed, having a reference person to talk and obtained reproductive health lessons at school were significantly associated to knowledge.

When all the independent variables related to knowledge entered into logistic regression, the model showed that type of residence, age, education, reproductive health lesson, and access to reproductive health media were strongly influence adolescents reproductive knowledge (Table 2). School-related variables played as the strongest predictors of adolescents reproductive health knowledge. Those who completed secondary level or more and those who obtained human reproductive lessons at schools were 2.2 times and 1.6 times more likely to have complete reproductive health knowledge, compared to those who attained lower level of schooling and did not obtain the lessons at school. However, it should be noted that educational attainment only significant to reproductive health knowledge of adolescents who have completed secondary level or more, and not significant to the lower level. This perhaps, those who have completed secondary schools or more have received reproductive health information more than those who completed lower than secondary. The finding also implies that reproductive health lesson is best given at secondary level or more since adolescents in this grades are usually having high curiosity toward their own sexuality, thus their demand for reproductive health information is likely to be higher among others.

Friends, access to reproductive media and socio demographic characteristics also predict adolescents' knowledge. As most of Indonesian young men talked to their friends to discuss reproductive health issues, those who had reference person to discuss reproductive health matters were 1.7 times more likely to have a complete reproductive health knowledge related to pregnancy, compared to those who were unable to

discuss it with anyone. Those who had better access to reproductive health media, either printed, radio or television, were 1.6 times more likely to have complete understanding of reproductive health related to pregnancy compared to their counterparts who had less access to media. Place of residence and age also increase the likelihood to have complete understanding of reproductive health knowledge related to pregnancy. Being older and living in urban area, young men were 1.1 times more likely to have complete reproductive health knowledge related to pregnancy, compare to their younger and rural counterpart.

DISCUSSION

Adolescents' reproductive health in Indonesia is of growing concern today. The rapid social change from a traditional toward a modern society is marked by improved communications and flows of information. Not only affected demographic, economic and education, the integration of global markets has also conveyed norms, values and lifestyles alien to Indonesia's society. These disturbing effects are particularly affecting adolescents and young adults, those most vulnerable to ideas and values of all kinds during their transitional period from childhood to adulthood.

It should be noted that even though socioeconomic areas has been rapidly change, some cultural values and norms are persist in Indonesian context. Discussion of sex and sexuality among unmarried young people remains a taboo. Parents rarely discuss sexuality or reproduction in explicit terms with their unmarried youth [28]. Likewise, the government and policy makers are also reluctant to provide reproductive health education at school because they believe it will lead the youngsters to engage in risky sexual practice earlier.

The findings of the present study confirmed that adolescents lacked of reproductive health knowledge related to pregnancy. Many Indonesian young men had misconceptions on fertile period and the risk of pregnancy. Only few of them understood that a woman is having the greatest chance to become pregnant at the halfway between her period. Most of them also misbelieved that having one time sexual intercourse won't cause a pregnancy [11, 24, 25]. This should be a concern since these false beliefs put women at higher risk of pregnancy, as they believe they are taking precautions to prevent conception.

A deep concern should be addressed to this particular matter because these incorrect

knowledge and false belief have been spread among adolescents over the past decades. IDHS recorded, the percentage of young men who answered correctly toward question related to fertile period tend to decline over times, from 32% in 2002 and 21% in 2007 to 18% in 2012. Likewise, the false believe regarding the risk of pregnancy remains. The number of Indonesian young men who believed that a woman won't be pregnant with one sexual encounter remains high over the past ten years, from 54% in 2002, 48% in 2007 and 52% in 2012 [3-5]. Micro studies in many parts of Indonesia also reported the similar results, indicating that there has been less effort in increasing and correcting adolescents' reproductive health knowledge.

The findings of the present study suggest that schools able to provide a good quality of reproductive health information for young people. Indonesian young men are more likely to have better reproductive health knowledge when they are completed secondary school or more, and given information regarding human reproductive system.

It should be noted, although reproductive health has been included in the school curricula, the quantity and the quality of information provided for Indonesian youngsters are lacking. In most public schools, education about reproduction and sexuality is usually limited to a single biology lesson in the first year of high school. The biological processes of puberty and the functions of female and male sex organs are described in brief. These lessons are typically taught in mixed-sex classes, and by teachers who are untrained in providing reproductive/sex education, thus the lessons do not provide the opportunity to ask questions or discuss the topic matter in greater detail.

It is obvious that students need more education, particularly on intimate relationships between males and females, not limited only anatomy of reproductive tracts. Due to its limitation on space and time, the existing of reproductive health education at school is not sufficient to cover adolescents' curiosity regarding their own sexuality. Compared to intra curricula, extracurricula reproductive health programs provided by schools and NGOs perhaps showed a better result in terms of providing access to communicate and discuss sensitive issues. In some urban areas where Indonesian Planned Parenthood Association (IPPA) are working, some schools have been involved in the adolescents reproductive health programs. Number of youth who access hotline service from Youth Center may

become an example of how young people actually need a private space to discuss reproductive health matters [13, 29]. Nevertheless, considering the coverage of NGO such as IPPA are mostly limited in urban areas, the number of adolescents involved in such programs are practically neglectable.

There is no evidence which sources of reproductive health information accessed by youth lead to misconception. Inadequate reproductive health education at school, negative excess of media, or both. The result of the present study revealed that adolescents who have access to reproductive health information through mass media, either printed, radio or television are more likely to have a better reproductive health knowledge related to pregnancy, however, attention also should be addressed to adolescents use of media because the information gained from such sources is often partial or incorrect, due to the fact that many of these materials are not intended to be educational.

One of limitation of the present study is related to access to new media such as internet. IDHS did not collect information related to adolescents' internet usage. As a matter of fact, adolescents' internet use is getting higher everyday. Since the internet penetrate homes and schools, and with the availability of data connection over smartphones, more adolescents engaged to this new media more frequently to find reproductive health informations or just for pleasures. As a result, adolescents access to reproductive health media are actually now wider than the previous times.

Other limitation of this study lies on the nature of secondary data. As well as other large datasets, higher degree of association and influence are more likely to be found in IDHS data, especially because this study only focus on reproductive health knowledge related to pregnancy among Indonesian young men. Therefore, further analysis need to address other components of adolescents reproductive health knowledge and how its related to their sexual behaviour, and also comparison between male and female youngsters.

In conclusion, misconceptions on reproductive health knowledge related to pregnancy among adolescents alarms the importance of reproductive health education in greater details. Considering the nature of school in providing good quality of informations, a school-based preventive sexual education is necessary, not only to decrease potential high-risk behaviors, but also to reduce unnecessary feelings of anxiety regarding susceptibility.

ACKNOWLEDGEMENTS

Authors would like to gratefully acknowledge to the funding support from Excellent Scholarship by Ministry of Education Republic of Indonesia and Statistics of Indonesia for granting the access to the dataset for analysis. This research has been supported for publication by the Ratchadaphiseksomphot Endowment Fund of Chulalongkorn University (RES560530243-AS).

REFERENCES

- Hidayangsih PS, Tjandrarini DH, Mubasyiroh R, Suparmi S. Factor influencing risky sexual behavior of Makassar adolescents. *Indonesian Journal of Reproductive Health*. 2011; 39(2 Jun).
- Sabon SS. Determinants of HIV-AIDS-risked behavior among unmarried youth 15-24, secondary data analysis from 2002-2003 Indonesian Demographic Health Survey. Jakarta, Indonesia: University of Indonesia; 2007.
- Central Bureau Statistics, National Family Parenthood Coordination Board. Indonesia demographic and health survey: Adolescent reproductive health Jakarta. Jakarta: [S.n]; 2012.
- Central Bureau Statistics, National Family Parenthood Coordination Board. Indonesia young adult reproductive health survey 2007. Jakarta: [S.n]; 2007.
- Central Bureau Statistics, National Family Parenthood Coordination Board. Indonesia young adult reproductive health survey 2002-2003. Jakarta: Badan Pusat Statistik; 2004.
- Azinar M. Factors influencing premarital sexual behavior risked to unwanted pregnancy among university students in Semarang. Semarang: Diponegoro University; 2011.
- Jati AK. Premarital sexual intercourse among secondary school students in Boyolali, Central Java: a case study. Semarang: Diponegoro University; 2009.
- Winarno RD. An overview of adolescents sexuality in Semarang, Central Java. The importance of adolescents reproductive health education at school; August 9th. Semarang: [S.n]; 2008.
- Windiaty ES. Premarital sexual behavior of health polytechnic students in Semarang. Semarang: Diponegoro University; 2009.
- Yuswaningsih J. Factors influencing premarital sexual behaviors risked to unwanted pregnancy, sexually transmitted infection and HIV-AIDS: a study among secondary school students in Purwodadi. Semarang: Diponegoro University; 2009.
- Shaluhiah Z. Sexual lifestyle and interpersonal relationship of university student in Central Java and their implication for sexual and reproductive health. Exeter: University of Exeter, UK; 2006.
- Situmorang A. Adolescent reproductive health in Indonesia. Jakarta: USAID STARH Program Johns Hopkins University/Center for Communication Program Jakarta, Indonesia; 2003.
- Utomo ID, McDonald P. Adolescent reproductive health in Indonesia: contested values and policy inaction. *Studies in family planning*. 2009; 40(2): 133-46.
- Trisnawati Y. Factors Influencing secondary school adolescents' sexual behavior in Purwokerto. Semarang: Diponegoro University; 2010.
- Achmad S, Xenos P. Notes on youth and education in Indonesia. East West Center. 2001; 108-18.
- Gubhaju BB. Adolescent reproductive health in Asia. Paper presented at the 2002 IUSSP Regional Population Conference "South-East Asia's Population in a Changing Asian Context". Bangkok, Thailand, 10-13 June 2002.
- Cernada GP, Chang MC, Lin HS, Sun TH, Cernada CC. Implications for adolescent sex education in Taiwan. *Stud Fam Plann*. 1986 Jul-Aug; 17(4): 181-7.
- Masfiah S. Do high school curricula contribute to students arh knowledge and attitudes? a study in Semarang, Central Java, Indonesia. Thailand: Mahidol University; 2011.
- Widyastari DA, Shaluhiah Z, Widjanarko B. Adolescents in Peril: Internet and other influencing factors to adolescents' sexual attitudes. *Indonesian Journal of Reproductive Health*. 2010; 1(1): 1-5.
- Coleman J, Catan L, Dennison C. You're the last person i'd talk to. In: Roche J, Tucker S, Thompson R, Flynn R, editors. *Youth in society*. London: Sage Publication; 2005. p.227-34.
- Suzuki LK, Calzo JP. The search for peer advice in cyberspace: an examination of online teen bulletin boards about health and sexuality. *Journal of Applied Developmental Psychology*. 2004; 25(6): 685-98.
- Widyastari DA. The influence of internet exposure to adolescents' sexual attitudes. a study among secondary school students in Semarang. Semarang: Diponegoro University; 2009.
- Sammy CY. Sexuality education in schools. *Pediatrics*. 1994; 93(5): 871a.
- Dewi INCT. Personal and environmental influence to premarital sexual behavior of adolescents in Baturraden and Purwokerto high school. Semarang: Diponegoro University; 2009.
- Widyastari DA, Shaluhiah Z, Widjanarko B. Urinate after sex will prevent us from pregnancy, adolescents' misconception on reproductive health. *Indonesian Journal of Reproductive Health*. 2011; 1(1).
- Bandura A. Health promotion by social cognitive means. *Health Educ Behav*. 2004 Apr; 31(2): 143-64.
- Bandura A. Social cognitive theory : handbook of social psychological theories. [S.l: s.n]; 2011. p.349-73.
- Schouten BC, Putte Bvd, Pasmans M, Meeuwesen L. Parent-adolescent communication about sexuality: the role of adolescents' beliefs, subjective norm and perceived behavioral control. *Patient Educ Couns*. 2007 Apr; 66(1): 75-83.
- Utomo ID, McDonald P, Hull T, Diarsvitri W, Sadli S, Rosyidah I, et al., editors. What are they learning: lessons about reproductive health in Indonesian primary and secondary school textbooks. First Asian Population Conference, New Delhi, November; 2010.