

Pusmaika & Novianti, 2017

Volume 3 Issue 1, pp. 69 - 81

Date of Publication: 17th January, 2017

DOI-<https://dx.doi.org/10.20319/lijhls.2017.31.6981>

This paper can be cited as: Pusmaika, R., & Novianti, L. L. (2017). The Positive Impact of School-Based Peer Education Program towards Adolescent Sexual Behavior: A Systematic Review. LIFE: International Journal of Health and Life-Sciences, 3(1), 69 - 81.

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THE POSITIVE IMPACT OF SCHOOL-BASED PEER EDUCATION PROGRAM TOWARDS ADOLESCENT SEXUAL BEHAVIOR: A SYSTEMATIC REVIEW

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Abstract

The findings of various studies recommend one of the key actions to improve reproductive health is the empowerment of adolescents through educational programs. But there hasn't been a lot of research that shows this quite clearly. The purpose of this review is to positively impact school-based peer education program for adolescent sexual behavior. The method used is the search through databases such as ProQuest, Scopus, through from SpringerLink, ScinceDirect, and JSTOR using keywords. From the results of screening, 7 studies that meet the criteria has been found. The results of the majority review showed that school-based peer education program towards teenagers sexual behavior has showed positive impact. However, although the uniformity of design study has been applied, the number of samples and duration of intervention allows the occurrence of differences result from the study.

Keywords

Adolecent Sexual Behavior, Peer Education, Reproductive Health

1. Introduction

Adolescence is tinged with growth, changes, the emergence of a variety of important occasions and teenagers often face the risk of reproductive health because most have become sexually active (Laila, 2012; Wong, 2012). Teenagers don't have adequate life skills, so they are at risk of having unhealthy dating behaviors, and among others; have pre-marital sex. (Kemenkes-RI, 2015). Twenty-five percent of teens of age 15 years old has experienced sexual intercourse, resulting in Sexually Transmitted Disease (STD) and unwanted pregnancy. (WHO, 2011, 2014).

Based on the report, a school health program can help improve the health status of children and adolescents, including behavioral health, education and social. (Demissie Z, 2013; Layzer, Rosapep, & Barr, 2014). One of the teen health programs conducted at the school is the Centre for Information and Counseling (PIK-in Bahasa) for teenagers/students or school-based peer education (BKKBN, 2012; Jones, 2012; Story & Gorski, 2013). Some of the results of the study showed the majority of teens prefer discussions about reproductive health, sex and relationships with peers (Ayalew, Mengistie, & Semahegn, 2014; BPS, 2013; Kennedy et al., 2014; Wong, 2012), apart from online sources compared to their parents (Ayalew et al., 2014; Vivancos, Abubakar, Phillips-Howard, & Hunter, 2013; Wong, 2012). In addition, other studies show that teens want and utilize web-based sexual education. (Jackson, 2014; Long et al., 2012) via Centre for Information and Counseling managed by peers, teenagers are expected not to be hesitated and have a place and friends, who have been trained and prepared through training, to discuss (Jones, 2012; Lucin & Prof. dr. Djauhar Ismail, 2012; Marques & Ressa, 2013). Yet many adolescent men as well as women who are not aware of these facilities and haven't made use of the counseling information service (Kemenkes-RI, 2015; Kovarik, 2012).

Systematic review is essential because even though the educational programs that targeted teenagers sexual health has been applied, teenagers only know a little thing about it. The findings in many research suggested one of the keys needed in improving reproductive health is teenagers empowerment, especially though educational program (Devi & Jaya, 2013). However, there isn't enough research that shows firmly that sexual behavior affected by the application of school's health program, administered by appointed peers showed in research, that there's no significance of peers sexual education with sexual behavior (Michielsen et al., 2012; Morales, Espada, Orgilés, Secades-Villa, & Remor, 2014). Whereas, the other research literature proved that the impact of peers sexual education and sexual

behavior, in general, is positive towards teenagers sexual behavior changes (Madnick, 2015; Qiao, 2012).

2. Methods

The methods used in the systematic review is guided using checklist PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols).

2.1 The Search Strategy

The search of source information for the systematic review is done by looking for a variety of literature or through Scopus, ProQuest, SpringerLink, ScienceDirect, and JSTOR database, where the articles on health are usually found. The search criteria is restricted from 2012 to 2016, when continuous risky sexual behavior in teens rose, despite health education program teen in school has been repeatedly done since 2008 (Marques & Ressa, 2013).

The strategies used in searching the literature is the use of keywords that are related with "school-based peer education" AND "sexual behavior" AND "adolescence" by limiting time between 2012 to 2016 so as to obtain more specific journals.

2.2 Study Selection

Selected studies for inclusion in the systematic review are researches that qualify as follows: (1) research that includes health programs at school through peer education; (2) is an experimental research design; (3) the population or sample is teenagers/students/college students; (4) the substance could be a reproductive health; (5) research shows indicators of sexual behavior (condom use, sexual intercourse, sexual harassment behavior).

2.3 Abstraction and Data Management

The author takes the following information from studies that meet the following conditions: (1) General information: first author, year of publication, the location of the research; (2) design research: methods, the number of samples; (3) research results

2.4 Quality Testing

For testing the quality of research, the author did a review of the studies using experimental research design, because the design is ideal for use in measuring impact.

3. Results

3.1 Identification and Selection of Study

The author selected 13.451 articles (including duplicates) of 4 electronic database. After applying the selection criteria, the author narrowed it down to 345 articles (abstracts or

full papers). The 345 articles was narrowed again to 32 articles with full text assessed for eligibility. Article selection process is shown at figure 1 until the author finally retrieved 7 studies that fell into the criteria.

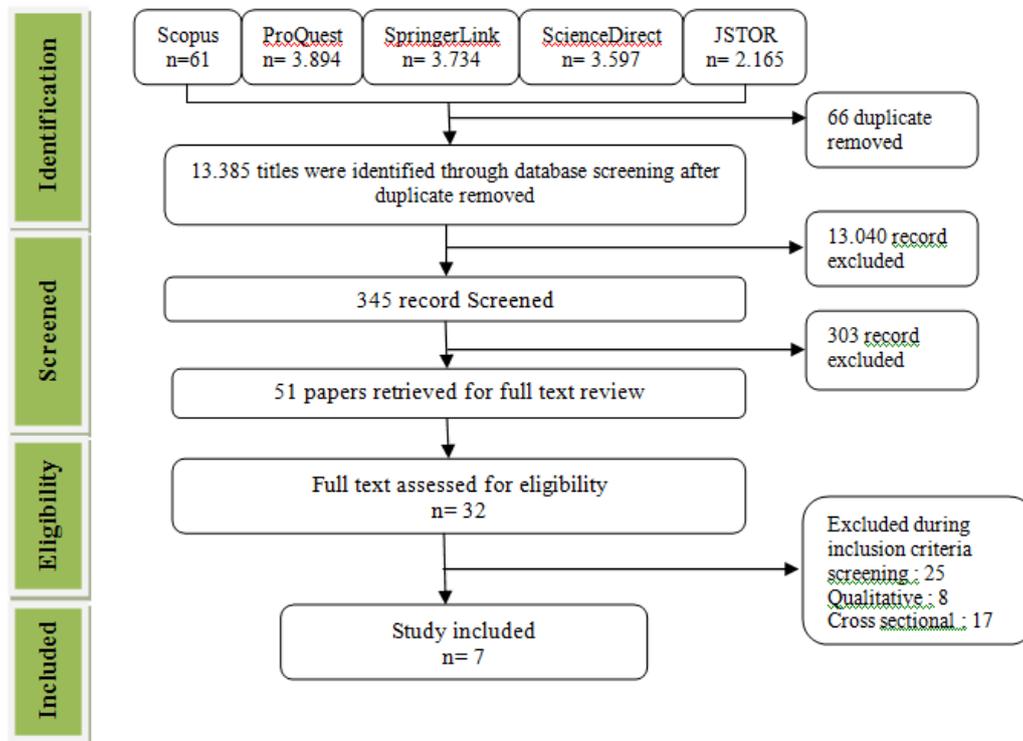


Figure 1: *Article Selection Process Flow*

3.2 The Characteristics Study

Table 1 shows the characteristics of studies used in this systematic review, where all the studies using experimental design research. The location of the studies came from various countries including Nigeria, Zambia, USA, Ethiopia, Kenya and Netherlands with school students as samples.

The six studies above showed that sexual and reproductive education programs, in general, have positive impact to change teenagers sexual behavior (Adeleye et al., 2014; de Lijster, Felten, Kok, & Kocken, 2016; Denison et al., 2012; Mahat, Scoloveno, & Scoloveno, 2016; Menna, Ali, & Worku, 2015; Odundo, Anjuri, & Odhiambo) and other studies showed no significance between the health education school with sexual behavior (Jennings, Howard, & Perotte, 2014). However one study that shows two sexual behavior indicates that there is a significant one partner's behavior and sexual intercourse to abstain for a year in post intervention, and there were no significant differences in the use of condoms during sexual intercourse (Denison et al., 2012)

3.3 The Strengths and Weaknesses of the Review

This systematic review showing reproductive health education programs in schools that are specific about peer educators in the framework of reproductive health promotion. However, this review using studies with experimental design where each study wearing different intervention period, so a positive impact towards sexual behavior still shows different results as well.

3.4 Strengths and Weaknesses in the Evidence Based

Of the seven studies reviewed, the majority of studies did not examine the same adolescent sexual behavior, but these studies were showing the kind of diverse sexual behavior, such as relationship/sexual activity, condom use, conduct HIV testing, as well as the behavior of fidelity to one partner.

This review concentrates on experimental research design but still there is one study that shows different results where school-based peer education programs do not affect sexual behavior significantly to teens (Jennings et al., 2014). The difference of the number of samples allows this to happen. Other studies using a sample large enough, i.e., more than 400 students, while the study only used a total of 155 students. However, when referring to the length of each intervention studies, studies with small sample amount done in a period of 12 months, whereas other studies with a large number of samples but use a shorter intervention time not necessarily able to demonstrate quite right results (Adeleye et al., 2014; Menna et al., 2015).

4. Conclusion

Studies show school-based peer education program *has positive impact* for adolescent sexual behavior. Sustaining school-based peer education program may allow for persistence of these outcomes and lead to reductions in sexual risk-taking behaviors. So this program has been developed and should be run in schools in order to suppress the risky sexual behavior in teens although program and other roles outside of school too became an important supporter.; this remains to be evaluated in future research. In addition, refer to the research methods is an important use of the right design in accordance with the research objectives with adequate samples and time of intervention.

This systematic review is expected to be the subject of an evaluation of the program for the implementation of school-based peer education programs to the development of the program. In addition, we need more appropriate number of samples and duration of the

intervention in further studies so that they can produce better researches. And to optimize future studies could be conducted in many more database.

Table 1: Characteristics of Research Used in Systematic Review

Author , Year	Title	Research Location	Time Intervention	Sample	Metode	Result
(Adeleye et al., 2014)	Evaluation of the Effectiveness of Peer Education in Improving HIV Knowledge, Attitude, and Sexual Behaviours among In-School Adolescents in Osun State, Nigeria	Osun State, Nigeria	12 weeks	400 student age 10-19	Experimental	peer education is effective in improving knowledge, attitudes, and practices of prevention of HIV/AIDS among adolescents in school
(Denison et al., 2012)	Do peer educators make a difference? An evaluation of a youth-led HIV prevention model in Zambian Schools	Zambian	-	2.133 students of 8 th and 9 th grade from 13 schools	Quasi Experimental	Intervention students reflected more changes in behaviour from his fellow non-intervention 1. the intervention Students are significantly more likely to report having had only one partner for life and a year-long sexual intercourse to abstain in post intervention 2. There are no significant differences between the 2 groups in the use of condoms during sexual intercourse
(Jennings et al., 2014)	Effects of a school-based sexuality education	New Jersey (USA)	12 months	96 intervention (i.e. Teen	Experimental	1. There are no significant differences in activity and sexual behavior. There are

	program on peer educators			PEP peer educators) dan 61 comparison between students from 5 senior high schools 560 student of 11 th grade		no significant differences in the use of condoms
(Menna et al., 2015)	Effects of peer education intervention on HIV/AIDS related sexual behaviors of secondary school students in Addis Ababa, Ethiopia	Ethiopia	4 months	560 student of 11 th grade	experimental	students in the intervention group were more likely to use condoms during the period post-intervention compared to students from group control
(Oundo et al.)	Impact of peer education on HIV/AIDS behaviour change among secondary school youths: a static group comparison analysis of a peer education project in Rachuonyo County, Kenya	Kenya	18 months	260 members of peer education and 212 non members	experimental	peer education encourages abstinence, faithfulness to one partner, use of condoms, and HIV testing
(de Lijster	Effects of an Interactive	Netherlands	6 months	747 responden	Quasi-experiment	Our research into the effectiveness of the

et al., 2016)	School-Based Program for Preventing Adolescent Sexual Harassment: A Cluster- Randomized Controlled Evaluation Study			t from 14 schools participat ed in the experime ntal condition and 11 in the control condition	al	program showed that, in the short term, students had less intention to commit sexual harassment behavior. It also showed a short and longer term change in their perceived social norm with regard to rejecting this behavior and their sexual self-esteem. Effects on these determinants will benefit adolescents' future sexual behaviors. We, therefore, conclude that combination of the play and the lessons have the potential to prevent sexual harassment behavior.
(Maha t et al., 2016)	HIV/AIDS Knowledge, Self- Efficacy for Limiting Sexual Risk Behavior and Parental Monitoring	United State	5 weeks	(N = 140) was comprised of 7th grade (N = 59) and 9th grade (N = 81) students, aged 11 to 15 (M = 13.2)	Quasi- experiment al	Knowledge is one of the main factors that promotes healthy behaviors and reduces risk-taking behaviors. An increase in HIV/AIDS knowledge was observed in both 7 th grade and 9th grade adolescents after the peer education program, which indicates the effectiveness of the intervention program. Thus it can be concluded that the peer education programs could be effective in reducing risky behaviors among adolescents.

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