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ORIGINAL RESEARCH

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EFFECT OF PEER EDUCATION MODEL ON KNOWLEDGE AND SELF-EFFICACY OF CHILDREN IN THE PREVENTION OF PHYSICAL SEXUAL VIOLENCE

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Abstract

Background: The rate of incidence of physical assault on school children increases from year to year. Efforts to prevent child sexual violence can be done through school-based education with student empowerment.

Objective: To identify the effect of education by peers on the knowledge and self-efficacy of primary school children in preventing sexual violence in Grabag sub-district, Magelang regency, Indonesia.

Methods: This study was a quasi-experimental study with pretest and posttest non-equivalent control groups. A total of 84 school-aged children were purposively recruited from two different primary schools. Each group consisted of 42 respondents. Children's Knowledge of Abuse Questionnaire-Revised III (CKAQ-RIII) instrument was used to measure knowledge and self-efficacy questionnaire was measured for self-efficacy. Data were analyzed using Wilcoxon and Chi-Square test.

Results: The study showed that a statistically significant difference in the variables of both knowledge ($p=0.008$) and self-efficacy ($p=0.000$) in the intervention group after given peer education treatment.

Conclusion: Educational interventions by peers can improve the knowledge and self-efficacy of primary school-aged children in preventing sexual violence. Peer education can be used as an effort to prevent sexual violence in children through school empowerment programs.

Keywords: peer education; knowledge; self-efficacy; child sexual abuse

INTRODUCTION

Sexual violence against children is a serious problem with a prevalence ranging from 0-53% in girls and 0-60% in boys (Pereda, Guilera, Forns, & Gómez-Benito, 2009). The high risk of sexual violence in children is the age group of 7 to 13 years (Finkelhor, 1994). Surveys conducted in 155 girls aged 4-17 found that 81% of children were sexually

abused and 68% were sexually harassed by more than one individual (Alejano & Alonso, 2005). The report of the National Commission for Child Protection in Indonesia by 2015 showed that 59.30% of 2,898 cases is a matter of sexual violence. The incidence of physical sexual violence is increased compared to previous years. Of 62% of cases of sexual

violence occurred in the immediate environment of the family and school environment and 38% in the public sphere. The perpetrators of sexual violence against children were those who were closest to the children, such as teachers, stepfathers, brothers, family, neighbors and even school security guard ([Putra, 2015](#)).

Child protection institutions in Magelang regency noted that in 2016 there were 25 cases of physical sexual violence in children ([Faidah, 2016](#)). The report of child sexual abuse in Grabag sub-district was obtained from case reports handled by the Police Criminal Unit of the Grabag sub-district and the report from the Public Health Center of Grabag I. In 2016 the Grabag District Police Sub-district has handled 2 cases of physical sexual violence and the Public Health Center of Grabag I has 4 cases of sexual violence in children during 2015-2016.

Prevention of sexual violence against children in school is done through school-based programs. The program of teaching children about preventing sexual violence is the most common type of prevention program ([Brown & Saied-Tessier, 2015](#)). A study shows evidence of improvement in protective behavior and knowledge among children exposed to school-based programs, regardless of the type of sexual violence prevention program ([Walsh, Zwi, Woolfenden, & Shlonsky, 2016](#); [Zwi et al., 2007](#)).

School-based programs do not cause harm such as anxiety or fear in children or parents. Children enrolled in school-based sexual violence prevention programs are more likely to disclose their harassment than children who do not receive the program ([Zwi et al., 2007](#)). School-based sexual violence prevention activities include teacher training, health promotion model development, sexual violence prevention programs with theater method, psycho-education training, and games ([Cecen-Erogul & Kaf Hasirci, 2013](#); [Krahé & Knappert, 2009](#); [Neherta, Machmud, & Damayanti, 2015](#)). Another activity that can be done as an effort to prevent sexual

violence is by using the school empowerment approach, including the education of peers.

Peer education is a common approach to encourage health-enhancing behavior, including sexual violence prevention behavior. Trained peers can communicate effectively with their peers and pass information through channels that health workers cannot use ([Moshki, Zamani-Alavijeh, & Mojadam, 2017](#)). Peer-led education in health is an effective method based on the belief that information, especially sensitive information, is more easily shared among individuals of the same age ([Mellanby, Rees, & Tripp, 2000](#)). This includes information on preventing child sexual abuse. Peer education is an educational process undertaken by a group with the same social standing to alter the knowledge, attitudes, beliefs, behaviors and skills at the individual level ([UN, 2007](#)). The education process by peers consists of educational program planning by peers, recruitment of educators, educational training, supervision and management of education programs, and monitoring and evaluation of education programs ([USAID, 2010](#)).

Previous research has reported on the effectiveness of the use of peer education in primary school children in the clean and healthy life behavior of school children ([Fitriani, 2011](#)), protection against sunlight ([Ping, Lingli, Manoj Sharma, Yong Zhang, & Yong, 2014](#)), health promotion of urinary tract infection prevention ([Jahanbin, Heydari, Ghodsbin, & Sayadi, 2015](#)), and health promotion of pediculosis prevention ([Moshki et al., 2017](#)). When school-aged children enter in the mid and late child years, they will exert their energies to master intellectual knowledge and skills ([Hockenberry & Wilson, 2014](#)). Formation of behavior is also influenced by self-efficacy factors.

Self-efficacy is an individual's belief in his/her ability to organize and accomplish a task to achieve certain outcomes ([Bandura, 2006](#)). Individual beliefs include his/her belief in the ability to prevent sexual violence. The

scope of nursing, especially community nursing, is to provide direct public health nursing services to all health care settings, one of which is in schools. Community nursing intervention strategies include health education, empowerment and group process ([Stanhope & Lancaster, 2015](#)). One form of school empowerment activity is peer education. Peer educators can work with teachers in the education process by peers or run educational activities independently either lead or organize school-based educational activities. Educational activities by peers can complement health education activities led by teachers and health care ([UNICEF, 2012](#)). The purpose of this study was to identify the effect of education by peers on the knowledge and self-efficacy of primary school children in preventing sexual violence in Grabag Sub-district, Magelang regency.

METHODS

Study design

This research used a quasi-experimental design with two groups, namely intervention group and control group.

Research subject

A total of 84 school-aged children were purposively recruited from two different primary schools. Each group consisted of 42 respondents. The inclusion criteria in this study were (1) fourth and fifth grade students; and (2) obtained permission from parents to become respondents. The study was conducted in two elementary schools located in Grabag sub-district, Magelang regency.

Instrument

The school-age knowledge variable was measured using the Children's Knowledge of Abuse Questionnaire-Revised III (CKAQ-RIII) instrument translated in Bahasa Indonesia and tested for validity and reliability. CKAQ-RIII is an instrument composed by LM. Tutty and used to assess the level of knowledge of children about the concept of preventing sexual violence ([Tutty, 1995](#)). CKAQ-RIII in the Indonesian

language has r-count value of 0.807. Self-efficacy variables were measured by self-efficacy questionnaire consisting of 29 questions with and having r-value of 0.807. The self-efficacy questionnaire in this study is the development of self-efficacy questionnaire by Bandura and has passed the content validity testing stage with three experts in psychology, nursing and community nursing with a Content Validity Rate (CVR) score of 1.00 ([Bandura, 2006](#)).

Intervention

This research consisted of two stages of research. The first stage was the training of peer educators in the intervention group. In the first phase, researchers and school teachers recruited 10 children to be trained to become educators. Educational training program was conducted for 6 days with training duration for 45 minutes for each day. Educator training used lecture, discussion and role-playing methods. The media used were flipcharts, games and video games. The second stage was the intervention stage, namely the education process by peers in the intervention group. The second phase of the research was done after the education training was completed. Peer education was done for 2 weeks with each session length of 25 minutes. Education by peers used discussion methods and playing games. The media used include flipcharts, sexual violence prevention videos, card games, snake ladder games, and drawing.

Data analysis

Data were analyzed using Wilcoxon test to assess the differences of knowledge and self-efficacy in each group. Chi-Square tests were used to assess differences in self-knowledge and efficacy in the intervention and control group.

Ethical consideration

All respondents and parents of respondents have obtained an explanation of the research objectives and benefits. Explanations were given orally and in writing. This research has been approved by the Health Research Ethics Commission of Faculty of Medicine University of Diponegoro and RSUP dr

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RESULTS

Table 1 shows the average of age of the respondents in the intervention group was 10.95 years old and in the control group was 10.86 years old. Levene's test results showed that the age of the respondents in both groups

was homogenous with $p = 0.095 (>0.05)$. The majority of the level of education of parents was elementary school. There was no difference of the level of educational background in both groups with $p = (0.102)$. Most families had poor incomes in both control and intervention group and homogeneity test showed the result of equal family income in both groups with significance value >0.05 .

Table 1 Characteristics of respondents based on age of respondents, educational level of parents, and family outcome

Variable	Intervention (n= 42)		Control (n = 42)		p-value
	f	%	f	%	
Age	Mean: 10.95 SD: 0.882		Mean: 10.86 SD: 1.002		0.095
Educational level of parents					
Elementary school	20	47.60	16	38.10	0.102
Junior high school	12	28.60	16	38.10	
Senior high school	10	23.80	10	23.80	
Family income					
< Rp. 1.410.000	38	90.5	36	85.7	0.060
>Rp. 1.410.000	4	9.5	6	14.3	

Table 2 Difference of knowledge and self-efficacy of school-aged children before and after given intervention

Variable	Intervention (n = 42)		Control (n = 42)		p value
	f	%	f	%	
Knowledge (Pretest)					
Good	25	59.52	24	57.14	0.123
Poor	17	40.48	18	42.86	
Self-efficacy (Pretest)					
High	19	45.2	22	52.4	0.827
Low	23	54.8	20	47.6	
Knowledge (Posttest)					
Good	36	85.70	24	57.10	0.008
Poor	6	14.30	18	42.90	
Self-efficacy (Posttest)					
High	33	78.60	17	40.50	0.001
Low	9	21.40	25	59.50	

Table 2 shows no significant differences in child knowledge and self-efficacy prior to intervention in both intervention and control groups. Posttest results showed significant differences in knowledge and self-efficacy after intervention in two groups ($p < 0.05$). Wilcoxon test results in the Table 3 showed a statistically significant difference both in the

variables of knowledge ($P = 0.008$) and self-efficacy ($p = 0.000$) in the intervention group after given peer education treatment. However, the results of the analysis in the control group showed no significant differences before and after the intervention in self-knowledge and self-efficacy variables.

Table 3 Difference of knowledge and self-efficacy of School-aged children before and after given intervention using Wilcoxon test

Variable	Intervention (n = 42)		<i>p value</i>	Control (n = 42)		<i>p value</i>
	f	%		f	%	
Knowledge						
Pretest						
Good	25	59.50	0.008	24	57.10	1.000
Poor	17	40.50		18	42.90	
Posttest						
Good	36	85.70	0.000	24	57.10	0.132
Poor	6	14.30		18	42.90	
Self-efficacy						
Pretest						
High	19	45.2	0.000	22	52.4	0.132
Low	23	54.8		20	47.6	
Posttest						
High	33	78.60	0.000	17	40.50	0.132
Low	9	21.40		25	59.50	

DISCUSSION

The results of this study indicated that there was a significant difference in the knowledge variable of school-aged children before and after peer education in the intervention group. The results of this study were in line with previous research that education by peers has an influence on the knowledge of school-aged children ([Moshki et al., 2017](#); [Ping et al., 2014](#)).

Peer education is an educational approach based on the fact that many people experience changes not only based on what is known, but based on the opinions and actions of their close and trusted friend. Peers can communicate and understand in ways that adult educators cannot and can be role models for change. A qualitative evaluation of school-based peer education shows that young people appreciate and can be positively influenced by peer-to-peer interventions if designed and properly supervised ([Moshki et al., 2017](#)).

This study shows that education by peers affects the self-efficacy of school-aged children in the prevention of sexual violence. The results of this study were in accordance with other studies indicated that education by

peers can affect one's self efficacy ([Varaei et al., 2017](#)). Belief in self-efficacy is the result of a complex process of self-persuasion that depends on the cognitive process of various sources of efficacy information delivered directly and socially representative. Peers are the second source of efficacy information for children after the family.

As the social world grows rapidly, peers become important sources of information about one's ability. Children experience new relationships that can enlarge and validate their personal abilities ([Pastorelli et al., 2001](#)). This includes information on preventing child sexual abuse by peers through an educational process by peers.

Peer education can be applied in school-aged children with the consideration that children's views are relatively active and more volatile when they are among their peers, and school children are in a trend-following period of development. The influence of friends is strong, and children are much easier to listen to their peers than adults ([Ping et al., 2014](#)). A qualitative evaluation of school-based peer education shows that young people appreciate and can be positively influenced by peer interventions if designed and properly

supervised through methods and interesting learning media and appropriate to the child's developmental level ([UNICEF, 2012](#)).

CONCLUSION

Intervention in the form of education by peers is proven to increase knowledge and self-efficacy in school-aged children in preventing sexual violence. Peer education can be used as an effort to prevent sexual violence in children through the effort of school empowerment through School Health Program (UKS) program.

Declaration of Conflicting Interest

None declared.

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Author Contribution

All authors contributed equally in this study.

References

- Alejano, L. R., & Alonso, E. (2005). Considerations of the dilatancy angle in rocks and rock masses. *International Journal of Rock Mechanics and Mining Sciences*, 42(4), 481-507.
- Bandura, A. (2006). Guide for constructing self-efficacy scales. *Self-efficacy Beliefs of Adolescents*, 5(1), 307-337.
- Brown, J., & Saied-Tessier, A. (2015). Preventing child sexual abuse: Towards a national strategy. Retrieved 7 March, 2017, from <http://www.nspcc.org.uk/globalassets/documents/research-reports/preventing-child-sexual-abuse-towards-a-national-strategy.pdf>.
- Cecen-Erogul, A. R., & Kaf Hasirci, O. (2013). The Effectiveness of psycho-educational school-based child sexual abuse prevention training program on Turkish elementary students. *Educational Sciences: Theory and Practice*, 13(2), 725-729.
- Faidah, T. (2016). Korban kekerasan seksual di Magelang didominasi pelajar [Victims of sexual abuse in Magelang dominated by students]. Retrieved 15 September, 2016, from <http://sorotmagelang.com/berita-magelang-2333-korban-kekerasan-seksual-di-magelang-didominasi-pelajar.html>
- Finkelhor, D. (1994). Current information on the scope and nature of child sexual abuse. *The Future of Children*, 31-53.
- Fitriani, D. (2011). Pengaruh edukasi sebaya terhadap perilaku hidup bersih dan sehat (PHBS) pada agregat anak usia sekolah yang beresiko kecacingan di Desa Baru Kecamatan Manggar Belitung Timur [Effect of peer education on healthy and clean life behavior on the aggregate of school-age children who are at risk of helminthiasis at Baru village Manggar district East Belitung]. Jakarta: Faculty of Nursing, Universitas Indonesia.
- Hockenberry, M. J., & Wilson, D. (2014). *Wong's nursing care of infants and children*. Philadelphia: Elsevier Health Sciences.
- Jahanbin, I., Heydari, N., Ghodsbini, F., & Sayadi, M. (2015). The effect of peer-education on UTI-Related preventive behavior according to hbm among first-grade high school female students in Shiraz, 2014. *Journal of Health Sciences and Surveillance System*, 3(1), 20-26.
- Krahé, B., & Knappert, L. (2009). A group-randomized evaluation of a theatre-based sexual abuse prevention programme for primary school children in Germany. *Journal of Community & Applied Social Psychology*, 19(4), 321-329.
- Mellanby, A. R., Rees, J. B., & Tripp, J. H. (2000). Peer-led and adult-led school health education: A critical review of available comparative research. *Health Education Research*, 15(5), 533-545.
- Moshki, M., Zamani-Alavijeh, F., & Mojadam, M. (2017). Efficacy of peer education for adopting preventive behaviors against head lice infestation in female elementary school students: A randomised controlled trial. *PLoS ONE*, 12(1), e0169361.
- Neherta, M., Machmud, R., & Damayanti, R. (2015). Development and Testing of intervention model for child sexual abuse prevention on primary school children in Padang City, 2014. *Indian Journal of Community Health*, 27(4), 472-477.
- Pastorelli, C., Caprara, G. V., Barbaranelli, C., Rola, J., Rozsa, S., & Bandura, A. (2001). The structure of children's perceived self-efficacy: A cross-national study. *European Journal of Psychological Assessment*, 17(2), 87.
- Pereda, N., Guilera, G., Forns, M., & Gómez-Benito, J. (2009). The international epidemiology of child sexual abuse: A continuation of Finkelhor (1994). *Child Abuse and Neglect*, 33(6), 331-342.
- Ping, H. U., Lingli, H. A. N., Manoj Sharma, H. Z., Yong Zhang, H. L. I., & Yong, Z. (2014). Evaluation of cognitive and behavioral effects of peer education model-based intervention to sun safe in children. *Iranian Journal of Public Health*, 43(3), 300.
- Putra, P. M. S. (2015). Komnas PA: 2015, kekerasan anak tertinggi selama 5 tahun terakhir [National Commission of Child Protection: 2015, the highest child abuse in the last 5 years]. Retrieved 15 September, 2016, from <http://news.liputan6.com/read/2396014/komnas-pa-2015-kekerasan-anak-tertinggi-selama-5-tahun-terakhir>
- Stanhope, M., & Lancaster, J. (2015). *Public health nursing e-book: Population-centered health care in the community*. Philadelphia: Elsevier Health Sciences.

- Tutty, L. M. (1995). The revised children's knowledge of abuse questionnaire: Development of a measure of children's understanding of sexual abuse prevention concepts. *Social Work Research*, 19(2), 112-120.
- UN. (2007). *Peer Education - a programme guidance note*. New York: United Nations.
- UNICEF. (2012). Peer education. Retrieved 16 September, 2016, from https://http://www.unicef.org/lifeskills/index_12078.html
- USAID. (2010). Evidence-based guidelines for youth peer education. USA: U.S. Agency for International Development
- Varaei, S., Shamsizadeh, M., Cheraghi, M. A., Talebi, M., Dehghani, A., & Abbasi, A. (2017). Effects of a peer education on cardiac self-efficacy and readmissions in patients undergoing coronary artery bypass graft surgery: A randomized-controlled trial. *Nursing in Critical Care*, 22(1), 19-28.
- Walsh, K., Zwi, K., Woolfenden, S., & Shlonsky, A. (2016). Assessing the effectiveness of school-based sexual abuse prevention programs. *Family Matters*(97), 5.
- Zwi, K. J., Woolfenden, S. R., Wheeler, D. M., O'brien, T. A., Tait, P., & Williams, K. W. (2007). School-based education programmes for the prevention of child sexual abuse. *Cochrane Database of Systematic Reviews*, 4, CD004380.

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