The get personal application to improve personal safety skills in children

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ABSTRACT

Sexual crime comprises child sexual abuse, grouping, rape, or the torture of a person in a sexual manner. Recently, sexual crimes have posed a threat to children in Indonesia. This study aimed to determine the effectiveness of the Get Personal application in enhancing children's personal safety skills against sexual crime. A pre-post control group design was utilized with a quasi-experimental approach. Twenty-two elementary school pupils who participated in the study were split into experimental and control groups, with the experimental group receiving the Get Personal application treatment. The personal safety skills scale was utilized to obtain the pretest and posttest data. The data were analyzed by independent sample t-test and paired sample t-test. Significant differences were found in the results of personal safety skills in the pretest and posttest scores in the experimental group, while the control group didn't indicate any difference. Following the paired t-test, individuals in the experimental group demonstrated a significant difference between the means of the pretest and posttest, with the posttest's mean score being higher than the pretest's mean score. Therefore, the Get Personal application improves children's personal safety skills and may apply to enhance personal safety skills among children.

Introduction

Sexual crimes against children are a growing problem in almost all regions of Indonesia (Collin-Vézina et al., 2013; Mashudi & Nur'aini, 2014). It is most experienced by boys and girls around 2 to 12 years old (Komalasari, 2016; Rohmah et al., 2015). These crimes are in the form of coercion of sexual activities in unnatural and undesirable ways, in which children are included as objects of perpetrators (Probosiwi & Bahransyaf, 2015)

Furthermore, the perpetrators are usually the closest people, such as biological or step-parents, neighbors, and relatives, showing that their environment does not provide a safe place of care (Hikmah, 2017; Komalasari, 2016). Children's bewilderment provokes sexual crimes about negative connotations of perpetrators' true intentions covert in the form of propositions or other motives, which can be followed by intimidations that compel children to comply (Mashudi & Nur'aini, 2014). Criminals use grooming as the primary tactic in 70% of cases to approach victims (Protection, 2019).

Sexual crime includes coercing or physically forcing someone to commit a sexual act against their inclination or purposefully osculating someone else without that person's permission. Furthermore, it is a form of sexual violence that comprises child sexual abuse, grouping, rape (coerced vaginal, anal, or oral penetration or a drug-facilitated sexual assault), or the torture of the person sexually (Collin-Vézina et al., 2013; Mashudi & Nur'aini, 2014).

Jambi Province has a high incidence of sexual crimes, which should be a cause for concern. Data from the Regional Integrated Service Unit for Protection and Children Jambi Province (2019) showed many reported child sex crimes. Furthermore, in 2018-2019, as many as 312 children across Jambi became victims, both boys, and girls. Sexual crimes against children violate morals and laws, and this act hurts physically, psychologically, and socially (Sitompul, 2015; Tursilarini, 2017; Umar et al., 2018; W. Zhang et al., 2015). Even children who have been abused and trauma tend to commit the same crimes against others. It becomes a continuous cycle; therefore, each victim must recover from the trauma and break the cycle (Octaviana, 2019).

Sexual crimes against children usually occur due to a lack of insight and other skills to protect themselves against sexual criminals, such as resisting persuasion, seduction, or threats (Umar et al., 2018). Efforts to avoid these crimes can be carried out by providing sexual education. After participating in sexual education programs, personal safety skills improve regardless of age (Chen et al., 2012). The education programs can be carried out on a school basis (H. Zhang et al., 2021; W. Zhang et al., 2014). A previous study shows training programs combined with appropriate practical skills will empower children in preventive behavior (Alirezaei & Mirzaiinajmabadi, 2019).

The personal safety skills program aims to advance knowledge and skills to avoid the threat of sexual crimes (Kumalasari & Kurniawati, 2018; Mashudi & Nur'aini, 2014; Wurtele, 2008). This skill attempts to deal with child sexual abuse; therefore, they may be responsible for protecting their bodies from sexual predators (Hasanah et al., 2019). Studies have shown that personal safety skills have successfully stimulated an increased ability to prevent sexual crimes (Juarni et al., 2020; Umar et al., 2018). In addition, it has been shown that providing information about personal safety skills to school and preschool children increases knowledge and skills (Handayani, 2017; Mashudi & Nur'aini, 2014).

Educational media for personal safety skills as an instrument for sexual education can be dolls, stories, videos, student workbooks, dramas, and comics (Bruce, 1995). However, this study examines media for android-based personal safety skills training to provide more accessible and practical knowledge about preventing sexual crimes in children (Fitria et al., 2020; Hasanah et al., 2019). Children receive three skill components recognize, resist, and report (Bagley & King, 2003), which are packaged in the Get Personal application (gadget personal safety skills). This application is based on an android developed to provide knowledge about the potential for sexual crimes (recognize), able to refuse the treatment of sexual crimes (resist), and dare to provide information to parents openly about sexual crimes behavior (report). These applied activities are carried out in stages with the principle of student-centered learning that emphasizes understanding, planning, action, and reflection (Twigg & Jorgensen, 2000). Therefore, this study aimed to investigate the effects of the Get Personal application on improving children's personal safety skills. This research hypothesizes that the Get Personal application will improve children's personal safety skills.

Method

Research Design

This research was designed as quasi-experimental research. This design required an experimental group and a control group to be compared. Table 1 shows the research design. Initially, a pretest was conducted to gauge each participant's level of personal safety skills by giving the experimental and control groups a scale to fill out. In the treatment phase, the experimental group received the treatment, whereas the control group received no treatment. The Get Personal treatment was implemented by facilitators who underwent a three-day

training program to teach kids the Get Personal activities for 150 minutes. In the last stage, the experimental and control groups' scores on the precise scale used for the pretest were used to provide the posttest

Table 1
Quasi-experimental Design

Group	Pretest	Treatment	Posttest
EG	O1	X	O2
CG	O1	-	O2

Description:
EG : Experiment Group
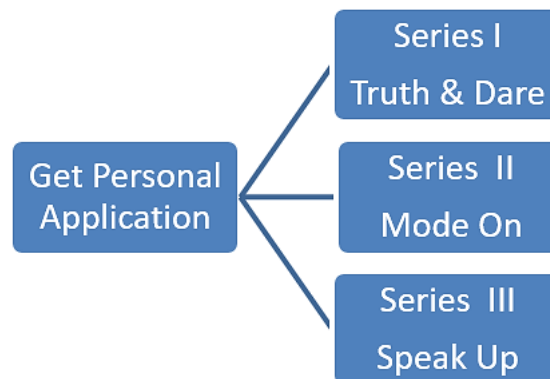CG : Control Group
O1 : Pretest
O2 : Posttest
X   : The Get Personal Treatment

Children were exposed to the Get Personal application for three days as part of the treatment given to the experimental group. The Get Personal application was administered daily for around 150 minutes, with the sessions shown in Figure 1.

Figure 1
Get Personal Sessions

Participants

The criteria for participants in this research were elementary school students aged 6-8 years. Participants aged six years old were the majority (54%). The number of female participants is more significant than that of males, 73% and 27%, respectively. 11 students were in the control group. In contrast, 11 students were in the experimental group. Therefore, all participants were equally allocated to both groups.

Instrument

The data collection used components of personal safety skills: recognition, resistance, and reporting (Bagley & King, 2003). The personal safety skills scale was field tested on elementary school students in Muara Jambi and has components reliability between .86-.92, with 24 items. The sample of recognition items is described, such as whether the child can state sensitive body parts in the hear area (hair-neck). Resist items are described as whether the child can say stop, no, stop, no, scream, or not want to be touched when sensitive body

parts are touched. Reporting items are shown, such as children can tell parents about sexual crimes that have taken place.
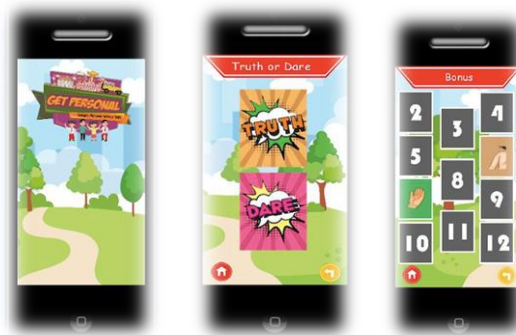
The Get Personal Application

The application (Apk) is software that can be launched and booted on mobile devices like Android (Burgers et al., 2016; Liu et al., 2014). The application was further developed using the Smart Apps Creator (SAC) program as a digital interactive medium for developing multimedia material for mobile devices. It works with all types of gadgets and touch screens (Smartappscreator.com). Therefore, by designing this product as an app, Get Personal will become a simpler and more sustainable (paperless) solution.

As shown in Figure 2, the pictures are aligned with event scenarios that are easy for children to comprehend and child-friendly colors. These pictures are developed in the Get Personal application to ease children's comprehension and make children comfortable.

Figure 2
Design of Get Personal Application Pictures

Experts have verified the material of the Get Personal application. The validators, including psychologists, parents, teachers, women, and child protection professionals, were explicitly chosen based on their competence areas. Table 2 shows the validation results.

Table 2
Validation Results

Sub-activities	Objectives	Description of the content and form of activities	Validator 1	2	3	4	Total Score	Σs	V	Validation Level
Truth & Dare	Children recognize the body parts that can and should not be touched	Children are asked to open a virtual truth card containing information about the body parts that can be and should not be touched	4	4	3	4	15	11	.55	High
		Children are asked to open a virtual dare card containing questions about the parts that can and should not be touched	4	5	4	3	16	12	.60	High

Table 2
Continued

Sub-activities	Objectives	Description of the content and form of activities	Validator 1	2	3	4	Total Score	Σs	V	Validation Level
	Children recognize who can and cannot touch-sensitive parts	Children are asked to open a virtual truth card containing information on who is allowed to touch the sensitive 12art	5	4	4	4	17	13	.65	High
		Children are asked to open a virtual dare card containing questions about who can touch the sensitive art	3	3	5	3	14	10	.50	Moderate
	Children know the behavior of other people with the potential for sexual crimes such as touching, persuading, threatening.	Children are asked to open a virtual truth card containing information on forms of behavior with the potential to commit sexual	4	4	4	3	15	11	.55	Moderate
		Children are asked to open a virtual dare card containing question about forms of behavior with the potential to commit sexual crimes.	4	4	4	3	15	11	.55	Moderate
Mode on	Children know how to resist actions from others who pose physical	Children are asked to open a virtual card containing questions that describe the actions of others who pose a physical threat	4	4	4	3	14	10	.50	Moderate
	Children know how to resist the actions of others who have the potential to harm verbally	Children are asked to open a virtual card containing questions that describe the actions of others by verbally refusing	4	4	3	3	14	10	.50	Moderate
Speak up	Children know whom to report or tell to about the sexual crimes that they have faced	Children are asked to open a virtual card which stimulates their ability to speak or write down the incidents of sexual crimes they have experienced	4	4	4	4	16	12	.60	High

Results

Table 3 presents the statistic descriptive of the experimental and control groups' mean and standard deviation of pretest and posttest scores. It can be seen that the pretest score of the control group is slightly higher than that of the experiment group.

Table 3
Statistic Descriptive

Group	Score	Mean	Standard Deviation
Experiment	Pretest	73	5.0
	Posttest	79	7.2
Control	Pretest	76	9.5
	Posttest	74	6.1

Figure 3 compares the average pretest-posttest scores of the experimental group to those of the control group. The mean score in the experimental group increased from the pretest to the posttest, but the mean score in the control group decreased from the pretest

Figure 3
Mean Difference between the Experiment and Control Groups
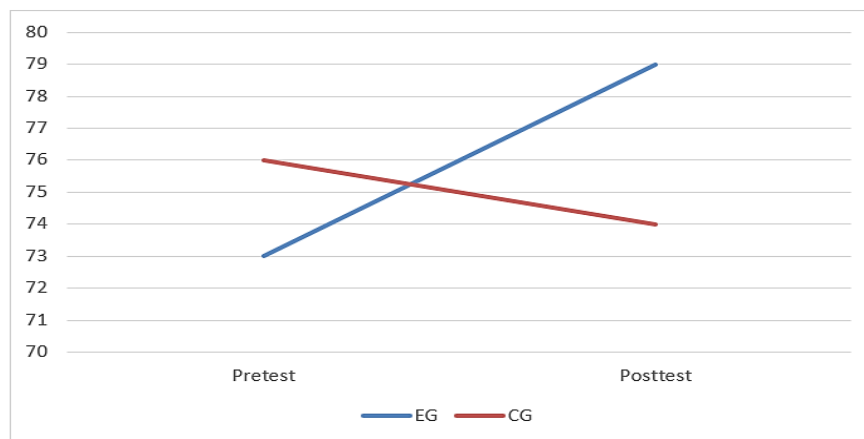

Table 4 shows the results from the paired sample t-test and the independent sample t-test. The result of paired t-tests on the experiment group was significant ($t=-2.992$; $p<.05$), with the mean score on the posttest being higher than on the pretest. This finding indicates after receiving the Get Personal treatment, the experimental group showed improved personal safety skills. Contrarily, there was no difference between the mean of the pretest and posttest scores among individuals in the control group ($t=.600$; $p>.05$). Meanwhile, the independent sample t-test on the pretest score between the experimental and control groups was insignificant ($t=-2.992$; $p>.05$). The findings indicate that personal safety skills among the experimental and control groups did not differ before the treatment.

Table 4
The Results of the t-test

t-test	Score	t value	p
Paired sample t-test	Pretest EG – Posttest EG	-2.992	.014
	Pretest CG – Posttest CG	.600	.562
Independent sample t-test	Pretest EG – Pretest CG	-.974	.342
	Posttest EG – Posttest CG	1.495	.151

Discussion

This study aimed to investigate the effects of the Get Personal application on enhancing children's personal safety skills. The findings show a significant difference in personal safety skills in the pretest and posttest scores in the experimental group, with the average posttest value higher than the pretest. In contrast, there was no significant difference in the control group. The findings imply that the Get Personal application effectively improves children's personal safety skills. Personal safety skill is one of the programs shown to help children avoid the risk of sexual crimes (Kumalasari & Kurniawati, 2018; Mashudi & Nur'aini, 2014; Wurtele, 2008).

The Get Personal application may apply as a school-based program to prevent sexual crime. School-based violence prevention education can be useful for increasing children's knowledge and skills regarding sexual violence prevention (H. Zhang et al., 2021; W. Zhang et al., 2014). Training programs and their combination with appropriate practical skills enable children to adopt preventive behavior (Alirezaei & Mirzaiinajmabadi, 2019). This school-based program is expected to improve children's personal safety skills after participating (Chen et al., 2012).

The Get Personal application attempts to use technological elements in the program. Training in Android-based personal safety skills can be easier and more effective in teaching children of relevant knowledge (Fitria et al., 2020). The study results show that the Get Personal application improves children's personal safety skills. These results are in line with previous studies results (Handayani, 2017; Hikmah, 2017; Juarni et al., 2020; Kumalasari & Kurniawati, 2018; Mashudi & Nur'aini, 2014; Umar et al., 2018) which aim to improve children's personal safety knowledge and skills to avoid the threat, as well as stimulating the increased ability to prevent sexual crimes (Çeçen-Eroğul & Hasirci, 2013; Wurtele et al., 1986).

The Get Personal application comprised three components: recognize, resist, and report (Bagley & King, 2003; Çeçen-Eroğul & Hasirci, 2013; Sawyerr & Bagley, 2017). *Recognize* is related to the importance of children understanding, identifying parts of the body that may and should not be touched by others, who may touch-sensitive parts of the body, and also finding out abnormal behaviors from other people related to sexual crimes. Furthermore, *resist* is the behavior of facing or rejecting other people when committing sexual crimes or acts. Meanwhile, the *report* is the behavior of reporting to parents, closest people, or the authorities when dealing with other people who commit sexual crimes or who make sexual discomfort

The components of personal safety skills are organized into applications and board games that use multimedia elements in the form of audio tools and virtual map functions to enhance children's enthusiasm for playing. The Get Personal application consists of three parts games, including truth and dares, mode on, and speak up, including virtual cards and board games, which require to be organized by paying attention to the shape of the text, colored board games suitable for children's development. Hence, children will be interested in using this application to play while learning. To ensure the validity of the Get Personal app, validators, including psychologists, parents, teachers, and child protection professionals, appraised it. The validator's assessment is also helpful as a measure of improvement to improve the reliability of the content. The results of the validator's assessment are within the valid criteria, which are included in the moderate and high categories.

The truth and dares game provides image stimulation for children to recognize the body and sensitive areas and recognize the bad behavior of perpetrators of sexual crimes through virtual cards displayed. Recognizing body areas is essential to provide information

as early as possible to shape children's knowledge of personal safety skills and attitudes toward preventing sexual behavior (Handayani, 2017).

The mode on game provides image stimulation regarding rejection behavior and relationships with others who intend or commit sex crimes. Children attending these sessions are encouraged to say no to potential sexual acts by others (Handayani, 2017). At the same time, the illustration depicted in the speak-up game emphasizes events that appear in an unsafe state or receive sexual crimes treatment from others. Therefore, in this game, children are required to report incidents of sexual crimes they have experienced to their parents or guardians in their environment. This combination is expected to increase their skills in telling someone about the incidence of sexual harassment, which is still considered very low (Wulandari et al., 2020).

This study has several limitations. The first limitation is a few references regarding interventions on personal safety skills using digital media as a demonstration. The second limitation is the potential of study participants' mortality. The time the school gives needs to be optimized so that respondents do not drop out of the study. Moreover, interventions carried out during the experiment require the school's commitment to providing facilities and infrastructure support.

Conclusion

The Get Personal application, with three game sessions, improves children's personal safety skills. A significant difference between pretest and posttest scores among the experiment group, with a higher score in the posttest than in the pretest, supports implementing the Get Personal application for children. Event illustrations arranged with pictures appropriate to the context of the game provide stimulation for children to recognize personal safety skills. Participants' experience in the Get Personal game strengthens information about recognition by recognizing parts of the body that may and should not be touched by others, who may touch sensitive parts of the body, and abnormal behaviors from other people related to sexual crimes. The Get Personal application also enhances participants' resistance to facing or rejecting others when committing sexual crimes or actions. The report deals with reporting to parents, closest people, or the authorities when dealing with other people who commit sexual crimes or cause sexual discomfort among the participants was also improved with the Get Personal application. Therefore, the Get Personal application is a valuable tool for improving personal safety skills, which hopefully may develop children's skills in dealing with the threat of sexual crimes around them.

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