

# Doll Simulation for Sexual Education To Improve Knowledge of Personal Safety Skills

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**Abstract---** Sexual violence against children, especially those aged 5-17 years, has increased every year with culprits mainly consisting of the people closest people to the victims (80.23%). Sexual violence experienced by children can cause fear, excessive anxiety, disruption of self-concept, a feeling of deep trauma, the deterioration of the child's physical and mental health condition and can take place in the long term. Therefore the importance of providing knowledge about personal safety skills, so that children understand how they can protect themselves, recognize dangerous situations, and what to do. The purpose of this study was to determine the effectiveness of doll simulation of sexual education on personal safety skills knowledge in preschool children. This quantitative study used the pre-experiment method and a pre-test and post-test research design without a control group. This study used non-probability sampling with total sampling, namely a group of 17 children aged 5-6 years. The instrument used was a knowledge questionnaire about personal safety skills consisting of 17 items that had been tested for validity and reliability. Data analysis was conducted using the Wilcoxon test. The results of this study indicate that doll simulation is effective in increasing knowledge about personal safety skills in pre-school children with a p value of 0.008 ( $p < 0.05$ ). Doll simulation can be an alternative learning method for increasing an understanding of personal safety skills. Based on these results, what nurses can do is collaborate with schools to provide education about sexual education to preschoolers.

**Keywords---** Preschool Children; Sexual Education; Personal Safety Skills.

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## I. INTRODUCTION

Cases of sexual violence against children still occur every year. Sexual violence against children is governed by morals and laws that physically and psychologically hurt children [1]. It does not only happen to girls; boys also become victims. Sexual violence against children does not only occur in big cities but is a greater problem encountered more broadly throughout Indonesia, and is often perpetrated by persons closest person to the child who can do it anywhere and anytime. According to the Witness and Victim Protection Agency (LPSK), the increase in child violence is affected by digital media and technologies. Actors are inspired by the content on social media, the internet, YouTube. Cases reported in 2016 stated 35 victims; this number reached as many as 70 victims in 2017; and as many as 149 victims in 2018 [2].

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Children who experience violence in any form tend to experience trauma, as a result of experiencing prolonged psychological stress and the child can suffer for a lifetime. Even more worrying, a person who is a victim of sexual violence has a 70% chance of growing into a perpetrator of sexual violence [3].

Also, most children who experience sexual violence fulfill the criteria of a psychological disorder called post-traumatic stress disorder (PTSD), with symptoms of intense fear, high anxiety, and rigid emotions after a traumatic event. According to [4], children who experience sexual violence need one to three years to open up to others.

To reduce the number of cases of sexual violence against children, of course, many things can be done, one of which is to provide sexual education early on to preschoolers. Of course, providing knowledge about sexual education to children is different from adults; it is necessary to use interesting media so that the material can be conveyed in a fun way. The media used are dolls that are made similar to humans in every aspect of their anatomy. The selection of puppets as a medium for delivering material follows the opinions expressed in [5] Tompkins and Hoskisson Mariana, (2014) that revealed simple puppets can provide opportunities for children to develop their creativity and dramatic skills. The use of puppet media helps children to reason, imagine, and form concepts about everything related to objects. Body mapping is one method that can be used to improve children's understanding of sexuality. It provides an understanding of the importance of introducing a child's body in an effort to help teach children to take care of their bodies early and avoid violence, both psychologically and physically [6]. The purpose of this study is to analyze the effectiveness of doll simulation of sexual education on personal safety skills knowledge so that children can understand which parts of the body are private from an early age, and take care of their own bodies; they can avoid both psychological and physical violence by establishing better communication between children and parents; and increasing the awareness of parents and the community towards the social lives of children [6].

The provision of sexual education for preschoolers will certainly affect their Personal Safety Skills. Personal Safety Skills are taught to children so that they can keep themselves safe in a dangerous situation. This education not only reduces the risk of becoming a victim but also increases the ability of children to protect themselves [7]. Personal Safety Skills are a set of skills that need to be mastered by children to maintain their own safety and avoid acts of sexual violence [1]. In a meta-analysis study conducted by Berrick & Barth 1992, it was found that the knowledge gained from the Personal Safety Skills class tended to last and be maintained for approximately one year both in primary school children (98%) and preschoolers (86%). This study aims to determine the effectiveness of using doll simulation for sexual education on personal safety skills in preschool children.

## **II. METHODS**

This study is a quantitative study with a pre-experiment method and pre-test and post-test research designs without a control group. The sampling technique in this study used non-probability sampling with total sampling or saturated samples; that is, all members of the population are used as research samples [8]. The study was conducted at a kindergarten in Semarang, Central Java, with 17 children that matched the inclusion criteria: preschool children aged 4-6 years who were allowed by their parents to participate (received informed consent) and did not experience hearing loss.

The extent of the children's knowledge of personal safety skills was measured before the intervention (pre-test) and after (post-test). Participants filled in the pre-test questionnaire with the help of the researchers (who read them the questions) then the respondent chose the answer (yes or no). Doll simulation was carried out for 15 minutes using male and female dolls. This research instrument consisting of 17 questions uses participants' demographic data questionnaires and personal safety skill questionnaires which include: body ownership, touch, assertiveness, the 'No-Go-Tell' sequence (dare to say 'no' or 'stop' loudly and tell others about what he/she experienced), secrecy (not keeping this a secret),

intuition (having sensitive feelings), support system (support that can help him/her) and blame (feeling innocent about the experience).

Each item on this Guttman scale questionnaire was rated 0 if the answer was wrong and 1 if the answer was correct. The personal safety skill questionnaire was tested for validity with  $r$  count  $>$   $r$  table which was  $>$  0.3 and the reliability value was 0.87 so it can be concluded that the instrument was valid and very good to use. This study used dolls as an educational media for preschoolers about identifying which parts of the body may or may not be touched by others, the ability to endure treatment or acts of violence, such as shouting for help, telling others that the person holding him/her is not his/her father or mother, etc. Then the child can ignore the seduction or persuasion of people who have the potential to commit sexual violence, saying "no!" or "stop!" loudly and decisively to people who try to commit acts of sexual violence, and dare to convey what he just experienced to parents or a teacher. Then the data were analyzed using a Wilcoxon test. This study has also passed the health ethical review at the Health Research Ethics Commission of the Faculty of Nursing in Unissula with certificate number 703/A.1/FIK-SA/X/2019.

### III. RESULTS

The sample in this study were kindergarten students who were mostly aged 6 years old (88.2%), while the rest were 5 years old. The number of male and female participants was almost the same; there was only 1 male participant more (52.9%) (see Table 1).

Table 1. Frequency Distribution of Variables

Variable		Frequency (f)	Percentage (%)
Age	5 years old	2	11.8
	6 years old	15	88.2
Sex	Male	9	52.9
	Female	8	47.1

Personal safety skill knowledge measured before and after the intervention showed an increase in the mean score, from 12.94 to 15.47. In addition, the statistical analysis of the test results showed a significant difference in the value of personal safety skills knowledge pre-test and post-test ( $p = 0.008$ ) (see Table 2).

Table 2. Statistical test results

Variable	Mean	Standard Deviation	Min-Max	95% Confidence Interval (CI)		Wilcoxon signed rank test ( $\alpha = 0.05$ )
				Lower	Upper	
Personal Safety	12.94	2.749	7-16	11.53	14.35	$p=0.008$
Skill Knowledge	15.47	1.625	11-17	14.64	16.31	

### IV. DISCUSSION

Children aged 5 to 6 years enter the stage of cognitive development, namely the pre-operational stage where children can develop knowledge using symbols and language, but are not yet able to think centered on one idea or store memories [9]. The level of strength and maturity of a person in their way of thinking increases with age. We know children aged 4-6 can absorb extraordinary information and children's curiosity is very high along with the development of a rapidly developing sex-role [10]. At this age, it is important to equip children with knowledge about their private body parts, and the ability to protect themselves from sexual violence, thus reducing the incidents of children who experience sexual violence [11].

Generally, girls are better in verbal skills, verbal divergent thinking, and general intelligence, whereas boys have quantitative and visual abilities and can concentrate on one specific thing. Previous studies, like [1], have shown that

girls are more vulnerable to becoming victims of sexual violence than boys with an average of 11.67 for girls compared to boys (7.33). Although the statistical results show there is no significant difference between boys and girls when it comes to sexual violence, knowledge of personal safety skills is significantly different between boys and girls. A meta-analysis study in China with 36 articles states that the prevalence of sexual abuse in China showed no significant difference between men (9.1%) and women (8.9%). But the incidence of child sexual abuse in China is higher than Hong Kong and Taiwan [12].

The average score on the personal safety skills questionnaire before the intervention was 12.94, the lowest was 7, and the highest 16; while, after the sexual education intervention, the average score was 15.47, the lowest was 11 and the highest was 17. The increase in knowledge would be in line with children's education. It is very important to give knowledge regarding personal safety skills to children to help them protect themselves from perpetrators of sexual violence [13]. According to a literature review of 26 articles stating that knowledge is the easiest indicator to measure, it has a positive effect on children as a form of prevention against sexual violence [14].

Personal safety skills consist of 3 components, called 3R, namely: recognize, resist and report. 'Recognize' develops the child's ability to recognize the characteristics of people who have the potential to commit sexual violence. Children are taught to recognize personal parts of the body that cannot and should not be touched by others; how to say no when others touch them in an inappropriate or uncomfortable way; have children look at the personal body parts of the offender, and display sexual content. It is expected that children will be able to distinguish perpetrators of sexual violence from others who communicate or make physical contact with them. 'Resist' involves the ability of a child to survive treatment or acts of sexual violence, such as by shouting for help, or telling others that the person holding him/her is not his/her father or mother. Children are taught to identify several actions that they can take when with the perpetrator; they are taught to ignore seduction or persuasion from people who have the potential to commit sexual violence; say "no!", or "stop!" loudly and decisively; and take countermeasures, such as hitting, biting, kicking, running away from perpetrators of sexual violence, and shouting for help. Finally, 'report' develops the ability of children to report sexually abusive behaviors received from adults by being open with their parents [15].

In addition to personal safety skills, there are other teaching programs on the prevention of sexual violence against children that must involve parents and teachers, namely the "PANTS" underwear rules program [16], which stands for 'Private to private', that is, every person covered in clothing must not be seen or touched; 'Always remember your body belongs to you' - the child must know his/her body is his/hers; 'No means no' - the child has the right to say no; and 'Talk about the secret that upset you', that helps the confident child to talk about a secret which has been causing them to worry about getting into trouble [17].

Basic knowledge about sexual education can keep children away from sexual crimes where the effects of sexual violence can be felt in the short or long term. Some studies suggest that children subjected to sexual violence will experience cognitive impairment, depression, anxiety, post-traumatic stress disorder (PTSD) suicidal thoughts, and other mental disorders into adulthood so that it will affect subsequent roles and relationships, for example, at work, with their parents, in their marriage, and their education [18]. In line with study [11] with 83 participants aged 36-72 months of age with normal development, 40 children in the intervention group and 43 in the control group. Children were taught body safety training to prevent sexual violence. There was a significant increase in the average of the intervention group compared to the control regarding their say skills, do skills, tell skills, and report skills. Likewise in [2], that the average score before puppet story intervention was 11.69 with the lowest being 1 and the highest 17, whereas, after the intervention, the average increased to 15.00 with 8 being the lowest and 17 the highest .

Also, research [19] showed an increase in knowledge about oral health by using puppet stage media and storytelling. [20] also showed the results of increasing pre-school children's knowledge after being given dental health

education and puppet stage media. [21] also found an increase in knowledge about hand washing through storytelling using dolls. Increased knowledge of respondents after being given health education is influenced by several factors one of which is information [22]. Other factors that influence the learning process are the material being studied, the environment, and the instructor, and the condition of the recipient of the material [23]. In this study, the material used instruments and created a conducive environment during the learning process so that participants could receive the material well, which results in increased knowledge after an intervention.

The results of the analysis showed that the average difference in the score before and after the doll simulation intervention was -2.5. The statistical test results yielded the Asymp. Sig (2-tailed) value as 0.008 which means  $p < 0.05$  which means that the doll simulation method about sexual education was effective in increasing the knowledge of personal safety skills in pre-school children.

Doll simulation is very familiar and interesting to children so it can be used very well as a learning medium for them, according to the physical capacity, mental development and by the group of children; besides, it proved durable or safe for Malone children in [24]. Things that need to be considered when explaining using a puppet are speech and movements that support learning so that children find it easy to follow and the child gets a good visualization and understanding of what is explained [25]. Good results were also generated from [2] with 34 participants divided into intervention and control groups. The statistical test with a paired t-test yielded a value of 0.003 which reflected the significant influence of the video story doll method for sexual education regarding knowledge of personal safety skills. Likewise in [26] with 62 participants, preschool children obtained Wilcoxon 0.000 test results, which means the influence of the hand puppet method on verbal communication skills. [27] showed the application of hand puppets can improve language skills, when two cycles of interventions were carried out for 60 minutes. After cycle 1, 63.5% exceeded the specified indicators, while after the second, this percentage rose to 76.7%. This agrees with [28], a study conducted in a preschooler group, with 28 participants who showed an average increase in language skills; before the intervention of a puppet story the average score was 3.57 and after the intervention, it was 6,821. Along with a Wilcoxon test value of 0,000, this means that the hand puppet story method - had a significant influence on on children's language development.

Learning to use teaching aids such as dolls encourages children to be active listeners as it helps in understanding the material presented. The process occurs when there are five elements of puppet simulation - namely listening, understanding, interpreting, evaluating, and responding - because it is very good for the delivery of knowledge relating to personal safety skills. Appropriate personal safety skills can prevent children of the paranoid generation who keep their distance from each other or adults, and interpret touch, an act of concern or affection, as a threatening thing. Therefore competent teachers are needed so that the message is delivered but does not make children in fear of being victims of sexual violence [29].

## **V. CONCLUSIONS**

Doll simulation can be an alternative learning method in increasing an understanding of personal safety skills. Based on the research results, what nurses can do is collaborate with the school to provide education about sexual education to preschoolers.

## **CONFLICT OF INTEREST**

The authors declare there is no conflict of interest in this study.

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