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Effect Of Ice Compress On Pain Response To Pentabio Immunization In Underwears At Puskesmas Deleng Pokhisen Year 2021

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ABSTRACT

Children who are immunized with Pentabio will experience pain which can cause excessive anxiety and even trauma. One method of reducing pain is an ice pack. However, currently there are not many ways used to reduce pain during immunization. The purpose of this study was to determine whether there was an effect of applying ice packs to the pain response during Pentabio immunization in toddlers. This type of research is a quasi-experimental post-test only with group control design. The experimental group was treated with ice packs before immunization, while the control group was given the distraction treatment. The sample size in this study was 50 respondents selected by purposive sampling technique and tested using the t-test. Based on the results of the t-test, in the control group there were 14 children who experienced very severe pain, while in the experimental group there were 4 children who did not experience pain. The difference in pain levels between the two groups obtained a p value of 0.0001 (0.0001 <0.05). It is recommended that there be the latest policies regarding immunization to improve the quality of services related to reducing pain when children are immunized. It is hoped that the community, including parents, will no longer be afraid of immunizing their children because there is an ice pack technique that can reduce pain when immunization is carried out, so that children can feel more comfortable with an easy, cheap and safe method.

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1. INTRODUCTION

Children who are immunized with Pentabio will experience pain which can cause excessive anxiety and even trauma. One method of reducing pain is an ice pack. However, currently there are not many ways used to reduce pain during immunization. Immunization is one way to stimulate the formation of antibodies from the immune system in the body by administering vaccines to prevent certain diseases. Immunization has been proven to be able to reduce mortality in children caused by infections such as measles, diphtheria, pertussis, tetanus, polio, hepatitis B and tuberculosis. Immunization is also one of the government programs implemented to achieve the goals of the Sustainable Development Goals (SDGs) program, Ranuh, I.G.N Gde, et al. 2018. Data from UNICEF states that the implementation of immunization globally has not progressed from 2015 to 2018 by 83%. Meanwhile, according to the Health Research and Development Agency (BPPK), immunization coverage in Indonesia has increased compared to 2013, 2016 and 2018, namely to 58.9% in 2019. However, there were 32.1% of children who were not fully immunized and 8 .7% have never been immunized with the reason that parents are afraid if the child has a fever, often gets sick, the family does not allow it, remote access, does not know where to immunize, and parents are busy, RI Ministry of Health, 2020.

Immunization is an indicator to see the coverage of infant and toddler health services in an area. Based on Pusdatin data, the coverage of infant and toddler health services in Aceh (NAD) in 2019 is still low, namely 78.1% for infant and toddler health service coverage and 73.5% for toddler health service coverage. This figure is still far from the target of the Ministry of Health's Strategic Plan

(Renstra), which is 90%. Cane City is a district that has the lowest coverage of infant and toddler health services in DI Aceh, namely around 66.5% for infant health coverage and 60.2% for toddler health coverage (UNICEF, 2018, BPPK 2018).

Based on data from the Cane City Health Office, in 2019 immunization coverage in Cane City was not 100%. Of the 4,113 live births, 4,027 babies were given immunizations. Puskesmas Deleng Pokisen has the lowest immunization coverage compared to other puskesmas in Cane City, namely 94%, (Health Profile, DINKES Kota Cane, 2019).

Immunization is a source of pain and suffering in infants and children which can cause anxiety and trauma, not only for infants and children but also cause anxiety and trauma for family members. (Razek, A.A and El-Dein, N.A.Z. 2019) This anxiety and trauma must be minimized immediately because it will increase the potential for children to be afraid of needles and medical procedures, and can lead to disobedience in carrying out future health checks, (Taddio, Anna et al, 2015).

Atraumatic care is one way to reduce anxiety and pain trauma caused by immunization injections, (Ismanto, Y.A., Marniaty R., Onibala F. 2015). Apart from reducing anxiety and trauma, atraumatic care can also be used to reduce psychological distress in families, especially parents. Atraumatic care has many methods, one of which is an ice pack. (Subandi, A 2015).

Ice packs to reduce pain and discomfort from needle sticks are effective local anesthetics, are affordable, easy to accept, and do not cause wound infection. (Taddio, Anna et al. 2015). The mean difference in pain levels between the group treated with ice packs and the group not treated with ice packs was 1.25. Previous research explained that the duration of giving ice packs to children and infants was for 1 minute, while for adults it was 5 minutes, (Mahshidfar, Babak et al. 2016). This is because there is discomfort that depends on the duration of ice contact with the skin and a person's pain threshold, (Ghaderi, F., Shahin Banakar, Shima Rostami. 2013).

The intensity of pain caused by taking venous blood in children who are hospitalized has also been shown to decrease after ice packs. Applying ice packs to preschoolers who have had infusions installed in hospitals has also been shown to reduce children's anxiety levels. This research includes a phase 1 clinical trial to assess the safety level of ice packs performed on children, (Sulistyani, Endah. 2009.).

Based on the preliminary studies that have been conducted, it is known that midwives who work in puskesmas experience problems during the implementation of immunization, namely fear of pain in children and anxiety for mothers or families accompanying immunizations. Most mothers or families who accompany immunizations cannot bear to see their child in pain and do not want to hold their child while being injected. The midwife also stated that there was no Standard Operating Procedure for implementing atraumatic care to reduce pain in immunized children. The way that is often done to reduce pain during immunization is with distraction techniques or diverting the focus of the child's attention by showing animals or something interesting. This method is done before the immunization is given.

Currently there are not many ways used to reduce pain during immunization. The existence of efforts to reduce the perception of pain in children during immunization is expected to increase the motivation of parents to bring their children for immunization, so as to reduce trauma to children.

This is the background for researchers to conduct research on the effect of giving ice packs on children's pain responses during pentabio immunization at the Deleng Pokisen Health Center. To make it easier for midwives to apply ice packs, the researchers changed the shape of the cotton cloth used to cover the ice into a bag that could be looped at the injection site. This method does not reduce the purpose of the cotton cloth to reduce the cold reaction caused by the ice.

2. METHOD

The research was conducted using quantitative methods with a quasi-experimental post-test only research design with group control design. Quasi experiment post-test only with group control design is a research method in which researchers cannot fully control all external variables that affect the course of the experiment, the samples used are not taken randomly. This design uses a control group and only measures the results after treatment, (Sugiyono, 2015).

3. RESULTS AND DISCUSSION

Based on the research results, it is known that every child who is given immunization by injection will experience pain, although the levels are different. This is because injection is defined as an unpleasant sensory and emotional experience experienced by children caused by tissue damage with a total of 50 respondents, the authors can describe the results of the research in the exposure below:

Characteristics of respondents

The results showed that the frequency distribution of pain levels in the control group and in the experimental group can be described as follows

Table 1. Frequency Distribution of Pain Levels in the Control Group and Experiment Group

No	Pain Response	Control Group		Experiment Group	
		N	%	N	%
1	No Pain	0	0	4	16
2	Mild Pain	3	12	15	60
3	Moderate Pain	8	32	6	24
4	Serious Pain	14	56	0	0
	Amount	25	100	25	100

Based on table 1, it was found that in the control group, most of the children experienced very severe pain, 14 (56%) of respondents. Meanwhile, in the experimental group, most of the children experienced mild pain, 15 (60%) of respondents. there is an experimental group there are also children who do not experience pain during injections after being given ice packs previously 4 (16%) Respondents.

In the control group the pain response was described on a very severe scale. This is because there is no defense mechanism along the central nervous system when pain impulses are transmitted, so there is no balance between the activity of sensory neurons and descending control fibers from the brain which causes the ascending pathways in the dorsal horn to open. Active ascending pathways make a person's pain threshold go down and cause a pain response.

Pain stimulus in the form of needle pricks will cause pathophysiological changes because chemical mediators such as prostaglandins from damaged cells, bradykinin from plasma, histamine from mast cells, serotonin from platelets and peripheral substances from pain nerve endings affect nociceptors outside the trauma area, so that the circle of pain expands. . Furthermore, a peripheral sensitization process occurs, namely a decrease in the threshold value of nociceptor stimulation due to the influence of mediators and a decrease in tissue pH. As a result, pain can arise due to stimuli that previously did not cause pain, such as needle pricks.

4. CONCLUSION

The pain response of children under five who were immunized with pentabio without intervention at the Deleng Pokisen Health Center mostly experienced pain with a very severe scale. The pain response of toddlers who were immunized with Pentabio by giving ice packs at the DEeleng Pokisen Health Center mostly experienced mild pain.

There are differences in the response to pain when giving ice packs and those who are not given ice packs during Pentabio immunization for children under five at the Deleng Pokisen Health Center. There is an effect of giving ice packs to the level of pain during Pentabio immunization for children under five at the Deleng Pokisen Health Center

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