

THE EFFECT OF AUDIOVISUAL DISTRACTION TECHNIQUES ON PAIN REDUCTION IN CHILDREN AGED 6-12 YEARS IN THE PEDIATRIC CARE ROOM OF ANWAR MAKKATUTU BANTAENG HOSPITAL

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Abstract

Backgrounds: The background of this journal centers on the management of pain in pediatric patients, specifically those aged 6-12 years, in the Lamalaka Ward of Anwar Makkatutu Hospital. The study investigates the effectiveness of audiovisual distraction techniques in reducing pain during invasive procedures. The research highlights the importance of ethical considerations in nursing research, such as informed consent, anonymity, and confidentiality. It also underscores the necessity of non-pharmacological pain management methods, including audiovisual distraction, to improve pediatric patients' quality of life and cooperation during medical interventions. The study aims to provide a foundation for future research and offer insights to hospitals for better pain management strategies in children. **The aim** is to investigate the effect of audiovisual distraction techniques on reducing pain in children aged 6-12 years during invasive procedures in the Lamalaka ward of Anwar Makkatutu Hospital. **Methods:** This study uses a quantitative approach with a pre-experimental design, specifically utilizing a one-group pretest-posttest approach. **Results:** The study results indicate a significant reduction in pain levels among pediatric patients following the application of audiovisual distraction techniques. Initially, 7 children (43.8%) experienced mild pain, 6 children (37.5%) experienced moderate pain, and 3 children (18.7%) experienced severe pain. Post-intervention, 15 children (93.8%) reported mild pain, 1 child (6.2%) reported moderate pain, and none reported severe pain. **Conclusions:** This study concluded that audiovisual distraction techniques effectively reduced pain levels in children aged 6-12 during invasive procedures. The results showed that most children reported decreased pain from moderate to severe to mild levels after applying this technique. This suggests that audiovisual distraction can help children become more cooperative and reduce fear during medical interventions.

Keywords: *Audiovisual Distraction, Pain Reduction, Pediatric Patients*

BACKGROUND

Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage. In children, pain can be a very frightening and disturbing experience, especially during invasive medical procedures. Effective pain management is essential to improve children's quality of life and well-being and to ensure they remain cooperative during medical treatment.

Pain management in children can be done with various pharmacological and non-pharmacological methods. Distraction techniques are one of the non-pharmacological methods that are effective in reducing pain perception by diverting the child's attention from the source of pain to something more pleasant. Audiovisual distraction techniques, which involve visual and auditory media such as videos and music, are one form of distraction that is widely used.

This study aims to evaluate the effectiveness of audiovisual distraction techniques in reducing pain in children aged 6-12 years during invasive procedures in the Lamalaka ward at Anwar Makkatutu Hospital. Using a pre-experimental one-group pretest-posttest design, this study measured pain levels before and after the intervention of audiovisual distraction techniques. The results of this study are expected to make a meaningful contribution to the development of better pain management strategies in the hospital environment, as well as a foothold for further research in this field.

In addition, this study also paid attention to ethical aspects of nursing research, such as informed consent, anonymity, and confidentiality of patient data. Thus, this study focuses not only on clinical factors but also on ethical aspects that are important in implementing health research.

METHODS

This study used a quantitative research design with a pre-experimental one-group pretest-posttest approach. In this design, no control group is used, but an initial observation (pretest) is made to allow researchers to test changes after the intervention (posttest). The population in this study were children aged 6-12 who underwent invasive procedures in the Lamalaka ward at Anwar Makkatutu Hospital. The sample was taken using a purposive sampling technique, where inclusion and exclusion criteria were set to ensure a representative sample.

Research Procedure

1. Pretest: Before the intervention, the child's pain level was measured using a 'face' pain rating scale comprising 6 cartoon face scales.
2. Intervention: Children were given audiovisual distraction techniques in the form of 10-minute videos.
3. Posttest: After the intervention, the pain level was measured again using the same scale to see the changes.

Research Instruments

The instrument used in this study was the 'face' pain rating scale, which was validated and widely used in pediatric pain research.

Data Analysis

The data obtained were analyzed using the Wilcoxon statistical test to compare pain levels before and after the intervention. This test was chosen because the generated data were ordinal and not normally distributed.

With this method, the study is expected to provide empirical evidence regarding the effectiveness of audiovisual distraction techniques in reducing pain in children during invasive procedures.

RESULT AND DISCUSSION

Univariate Analysis

1. Gender

Table 1. Distribution of Respondents Based on Gender Group in the Lamalaka Ward, Anwar Makkatutu Hospital

Gender	Frequency	(F) Percentage (%)
Male	8	50.0
Female	8	50.0
Total	16	100.0

Source: Primary Data 2023

Based on table 1 above shows that 16 child respondents who were treated in the Lamalaka Ward of Anwar Makkatutu Hospital obtained a male gender of 8 people (50.0%), while female gender amounted to 8 people (50.0%).

2. Age

Table 2 Distribution of Respondents by Age Group in the Lamalaka Ward, Anwar Makkatutu Hospital

Age Group	Frequency	(F) Percentage (%)
6-8 Years	9	56.2
9-11 Years	4	25.0
12 Years	3	18.8
Total	16	100

Source: Primary Data 2023

Table 2 above shows that 16 child respondents who were treated in the Lamalaka Ward at Anwar Makkatutu Hospital were 6-8 years old, totaling 9 people (56.2%), aged 9-11 years 56, amounting to 4 people (25.0%), and 12 years old, amounting to 3 people (18.8%).

Bivariate Analysis

Pain Before Administering Audiovisual Distraction Techniques

Table 3. Pain Before Administering Audiovisual Distraction Techniques in Children Aged 6-12 Years in the Lamalaka Ward, Anwar Makkatutu Hospital

Pain Scale Pretest		
	Number of Children	Percentage
Light	7	43,8
Medium	6	37,5
Weight	3	18,7
Total	16	100

Source: Primary Data 2023

Table 3 above shows that of the 16 respondents, 7 people (43.8%) had mild pain, 6 people (37.5%) had moderate pain, and 3 people (18.7%) had severe pain.

Pain After Administering Audiovisual Distraction Techniques

Table 4. Pain After Administering Audiovisual Distraction Techniques to Children Aged 6-12 Years in the Lamalaka Ward, Anwar Makkatutu Hospital

Scale Nyeri Posttest		
	Number of Children	Percentage %
Light	15	93.8
Medium	1	6.2
Weight 0	0	0
Total	16	100

Source: Primary Data 2023

Based on table 4.4 above shows that of the 16 respondents, 15 people (93.8%) had mild pain, 1 person (6.2%) had moderate pain, and none (0%) experienced severe pain.

Effect of Audiovisual Distraction Technique on Pain Reduction

Table 5. The Effect of Audiovisual Distraction Techniques on Pain Reduction in Children Aged 6-12 Years in the Lamalaka Ward, Anwar Makkatutu Hospital

Audiovisual Distraction Technique	Pain scale							
	Light		Medium		Total		Weight	
	n	%	n	%	n	%	n	%
Before	7	43,8	6	37,5	3	18,7	16	100,0
After	15	93.8	1	6.2	0	0	16	100.0

Wilcoxon Test Result p=0.005

Based on table 4.5 above it shows that of the 16 respondents who were subjected to invasive measures, the pain felt before the administration of the audiovisual distraction technique was obtained as many as 7 people (43.8) with mild pain, 6 people (37.5) with moderate pain and 3 people (18.7) with severe pain. Then, after the administration of the audiovisual distraction technique, 15 people (93.8) had mild pain, 1 person (6.2) had moderate pain, and no one experienced severe pain. Moreover, the results of statistical analysis using the Wilcoxon test obtained a value of $p=0.005 < \alpha=0.05$, which means that there is an effect of reducing pain due to invasive measures before and after the audiovisual distraction technique is carried out in children aged 6-12 years who are treated in the Lamalaka Ward at Anwar Makkatutu Hospital.

This study aims to evaluate the effectiveness of audiovisual distraction techniques in reducing pain in children aged 6-12 years who undergo invasive procedures in the Lamalaka Ward at Anwar Makkatutu Hospital. Based on the study's results, it was found that audiovisual distraction techniques significantly reduced the level of pain felt by children.

Here are some important points discussed in this study:

1. Effectiveness of Audiovisual Distraction Techniques :

The results showed that audiovisual distraction techniques were effective in reducing pain in children. Before the intervention, most of the children experienced pain, with levels varying from mild to severe. After the intervention, there was a significant reduction in the level of pain felt. This is in line with previous studies, which also showed that audiovisual distraction techniques can reduce pain in children during medical procedures.

2. Audiovisual Distraction Mechanism of Action :

Distraction techniques shift the child's attention from the pain to another more pleasant stimulus, such as a video or music. This can reduce pain perception and make the child more cooperative during medical procedures. Audiovisual distraction involves the senses of hearing and vision, which can provide strong stimuli to distract the child from the pain.

3. Factors Affecting Successful Distraction :

The success of distraction techniques is influenced by several factors, including the type of distraction, duration of distraction, the child's anxiety level, concentration ability, and environment. In this study, a 10-minute video was used as a distraction medium, which proved effective in reducing pain. In addition, a supportive environment and the child's ability to concentrate on the video also contributed to the success of the intervention.

4. Clinical Implications :

The results of this study have important clinical implications. Audiovisual distraction techniques can be an effective non-pharmacological method for pediatric. This study aims to evaluate the effectiveness of audiovisual distraction techniques in reducing pain in children aged 6-12 years who undergo invasive procedures in the Lamalaka Ward at Anwar Makkatutu Hospital. Based on the results of the research that has been conducted, several main points can be concluded as follows:

CONCLUSION

This study aims to evaluate the effectiveness of audiovisual distraction techniques in reducing pain in children aged 6-12 years who undergo invasive procedures in the Lamalaka Ward at Anwar Makkatutu Hospital. Based on the results of the research that has been conducted, several main points can be concluded as follows:

1. Effectiveness of Audiovisual Distraction Technique :

Audiovisual distraction techniques proved effective in reducing pain in children during invasive procedures. The results showed a significant reduction in the level of pain felt by the children after being given a 10-minute video intervention.

2. Differences in Pain Levels Before and After Intervention :

Before the intervention, most of the children experienced pain with varying degrees from mild to severe. After the intervention, the level of pain felt by the children was significantly reduced, indicating that audiovisual distraction techniques can help children become more cooperative and reduce fear and pain when undergoing medical procedures.

3. Clinical Implications :

Audiovisual distraction techniques can be used as an effective non-pharmacological method for pediatric pain management during invasive procedures. Hospitals and medical personnel may consider including this technique in pain management protocols, especially for pediatric patients. The use of audiovisual distraction techniques may also reduce the need for pharmacological analgesics, which may reduce the risk of drug side effects.

4. Recommendations for Future Research:

Future research is recommended to use a more robust research design, such as a randomized controlled trial (RCT), to confirm the effectiveness of audiovisual distraction techniques. In addition, further research could explore different types of distraction media and different durations to determine the most effective combination in reducing pain in children.

Overall, this study shows that the audiovisual distraction technique is effective and applicable in clinical practice to reduce pain in children during invasive procedures. These results support using audiovisual distraction techniques as part of non-pharmacological pain management in pediatric nursing. Pain management during invasive procedures. Hospitals

and medical personnel may consider including this technique in pain management protocols, especially for pediatric patients. The use of audiovisual distraction techniques may also reduce the need for pharmacological analgesics, which may reduce the risk of drug side effects.

5. Limitations of the Study :

This study has several limitations, including a small sample size and a study design that did not use a control group. Although the results showed a significant reduction in pain, further research with a more robust design and larger sample size is needed to confirm these findings. In addition, this study only used one type of distraction media (video), so further research could explore the effectiveness of other types of distraction media.

6. Recommendations for Future Research :

Future research should use a more robust design, such as a randomized controlled trial (RCT), to confirm the effectiveness of audiovisual distraction techniques. In addition, further research could explore different types of distraction media and different durations to determine the most effective combination in reducing pain in children.

Overall, this study shows that audiovisual distraction is an effective and applicable method in clinical practice for reducing pain in children during invasive procedures. These results support using audiovisual distraction techniques as part of non-pharmacological pain management in pediatric nursing.

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