FINAL RESEARCH REPORT ON

Effectiveness of video-assisted Distraction Therapy on Children's Pain Perceptions during Peripheral Venous Cannulation

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RESEARCH REPORT SUBMITTED TO

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DECLARATION

We hereby declare that this study entitled "**Effectiveness of video-assisted Distraction Therapy on Children's Pain Perceptions during Peripheral Venous Cannulation at Pediatric Wards of Hospitals in Biratnagar"**is bonafide work which has been prepared in cooperation and coordination of Principle Investigator Menuka Bhandari, Lecturer and co- investigators Ms. Munawatee Rai, Teaching Assistant,working at Tribhuvan University, Institute of Medicine Biratnagar Nursing Campus and Puja Gartaula, working as Nursing Administrator, Hamro Aspatal Pvt. Ltd Biratnagar.

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ABSTRACT

Relief of pain is a basic need and right of all children; effective pain management requires health professionals to be able to apply a number of interventions to achieve optimal results. The current study was aimed to discover Effectiveness of Video-assisted Distraction Therapy on Children's Pain Perceptions during Peripheral Venous Cannulation at Pediatric Wards of Biratnagar.

A quasi-experimental study was conducted at Pediatric Wards of different hospitals of Biratnagar. Data collection was done from Feb 27, 2023 to April 28, 2023. Non probability purposive sampling technique was adopted in selecting the desired sample size. Data was collected through an interview questionnaire format for socio-demographic information and a standard observational checklist of Assessments of the face, legs, activity, crying, and the consoleability (FLACC) pain rating scale was used to assess the pain perception of children. An animated cartoon video including short story, movie as per children's age group and language preference was used by the researcher. Experimental group received the video assisted distraction therapy as an intervention, while the control group received routine intravenous care by the nurses. Statistical analysis such as frequency, percentage, mean, range, SD, independent t-test, Fisher exact test were used.

The study findings has shown that there is significant difference between the pain perception score in experimental and control group during peripheral venous cannulation which suggest that the pain perception in experimental group is lower than the control group ($p = <0.001$) during and after two minutes of cannulation. Similarly the level of pain was also difference in both group, 42.5% children in experimental group has perceived moderate pain, 37.5% perceived mild pain and 20% reported severe pain whereas 92.5% respondents perceived severe pain and only 7.5% has perceived moderate pain during peripheral venous cannulation. The study has strongly recommended that the distraction therapy is the effective method to relief pain during painful procedure.

Keywords: Peripheral Venous Cannulation, Distraction Therapy, Pain Perceptions

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We are grateful to Koshi Hospital and Hamro Aspatal Pvt. Ltd. for providing permission letter to conduct this study. We would also thankful to the Matron, Medical Superintendent, nurses, and administrative staff of selected government hospitals for their permission, especially the emergency department of both hospital for the cooperation and valuable time for data collection, and enumerator role. Our deepest appreciation goes to Ms Punam Mandal who has provided enormous support and innovative ideas for statistical uses and analysis of the data. We also want to acknowledge each other within our group as Principal researcher and Co-researchers for the harmonious team work.

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EXECUTIVE SUMMARY

This study report was prepared based on the findings of Effectiveness of video-assisted Distraction Therapy on Children's Pain Perceptions during Peripheral Venous Cannulation. A quasi-experimental research design was used for conducting this study. The control group and experimental group were used and intervention was received by the experimental group only. There was no randomization. Post-test only design was used for the study. The target populations was children aged between two to seven years old undergoing peripheral venous cannulation. The study included the two part of children in the control group and one part of children in the experimental group (2:1). The study was conducted at the emergency department of Koshi Hospital and Hamro Aspatal Pvt. Ltd of Biratnagar. The children were allocated to study group 40 and 80 in the control group. The report is divided into five major sections; introduction, review of literature, research methodology, findings of the study, discussion and conclusion.

The introduction section begins with a broader international context to the local context and tried to find the research gap. It also describes the problem, rational for the study, objectives of the study. The second section is a detailed description of the literature in different context of the developed and developing countries to evaluate the effectiveness of video-assisted distraction therapy on children's pain perception during peripheral venous cannulation. Similarly the fourth section has displayed the findings of the study in table with illustration, includes demographic characteristics of the study, past history of respondents, Comparison between Experimental and Control Group Pain Perception during Cannulation Comparison of Pain Score between Experimental and Control Group during Cannulation. Association between Socio-demographic Characteristics and Level of Pain in Experimental Group. The fifth section related to the discussion, conclusion, recommendations and limitations of the study. The present study concluded that video-assisted Distraction Therapy was very efficient at distracting children from their pain during intravenous cannulation. It is an easy and affordable method to reduce pain and obtain children's cooperation and to divert their attention during a painful process.

Table of Contents

List of Table

List of Figures

CHAPTER I

INTRODUCTION

1.1Background of the Study

All children experience pain after being poked with a needle, but how they react to it depends on their developmental stage and past experiences. The nurse can offer a variety of amusing activities before, during, and after the process while performing a venipuncture (1).The act of inserting a vascular access device into a peripheral vein is known as peripheral venous cannulation. In order to introduce a temporary plastic tube into a vein, the patient's skin is punctured with a needle during this process (2). One of the most upsetting incidents and frequently conducted invasive procedures that a child may experience while in the hospital or when ill in pediatrics is peripheral venous cannulation (3). All children have the fundamental need and right to be free from pain, and in order to address those requirements, medical practitioners must be willing to attempt a variety of approaches in order to get the best outcomes (4).

Repeated venipuncture is particularly upsetting and uncomfortable for kids. Anxiety, a lowered pain tolerance, diminished analgesic effects for additional procedures, and avoidance of medical care are just a few of the severe repercussions that might result from a venipuncture that was performed harshly, without adequate preparation, or with excruciating agony (5). One non-pharmacological technique for reducing pain is distraction, which involves getting the patient to focus on anything other than the treatment itself. Distraction techniques decrease the necessity for uncomfortable invasive procedures and give the chance to manage therapies in less time, in addition to reducing pain and anxiety during those interventions (6).

Children are admitted to hospitals during their childhood for a variety of reasons, including medical and surgical issues or even for straightforward invasive treatments as part of treatment for chronic conditions. Hospitals frequently perform intravenous (IV) cannulation without first giving a child anesthesia. Children experience discomfort, worry, and distress after having an IV cannula inserted. About 70% of kids experience

worry, stress, or anxiety before having a venipuncture or other operation using a needle (7).

1.2 Need for the Study

The process of peripheral venous cannulation hurts. During this operation, children disobey the nurse's directions. It could cause stress to nurses, patients, and family members as well as multiple pricking. Distraction therapy helps children feel less pain and fear throughout the intrusive operation and improves treatment results. Children are a vulnerable and underserved group, and stress from pain is regarded to be a worldwide health problem. Prioritizing the child over the surgery is crucial. Untreated pain can sensitize a child's pain pathways, which makes the pain feel worse and generates worry. In order to minimize pain as much as possible in this setting, assessment by healthcare experts, particularly nurses, is essential. This setting also calls for the use of suitable pain relief techniques to guarantee a comfortable setting for intervention. Cannulation of the intravenous line is a routine nursing technique. Approximately 10 intravenous venous cannulations are carried out each day in the pediatric ward of Biratnagar. The most common devices owned by the general public nowadays are smartphones and tablets. As a result, this study is doable in terms of goal, time, resources available, etc.

1.3 Significance of the Study

Pain relief approaches that are non-pharmacological are effective. If the nurse performs the proper assessment and interventions, pain can be managed, particularly during difficult procedures. Nurses did not use the pain evaluation scale as recommended by hospitals and international organizations for routine usage with vital signs. Non-pharmacological methods are affordable, simple to administer, and secure. There aren't many research that look at how well non-pharmacological methods work for easing children's pain. Millions of kids go through these routinely unpleasant procedures, like vein punctures, which are very upsetting.

1.4 Relevant Research Gaps

The effectiveness of distraction therapy on children's perceptions of pain has been demonstrated in a number of research from other nations. There have, however, only been a few reports of findings from the Nepalese setting.

1.5 Relevant Previous studies

The majority of children had a history of prior cannulation, according to the previous cannulation history. According to various studies, using an animated cartoon as a diversion during venipuncture resulted in much lower pain scores than the control group before, during, and after the procedure.

1.6 Research Questions

What is the level of pain perception among children without video-assisted Distraction Therapy during peripheral venous cannulation?

What are the factors affecting pain perception of children during peripheral venous cannulation?

1.7 Research Hypotheses

Children receiving video-assisted Distraction Therapy during Peripheral Venous Cannulation would perceived less pain than the children receiving routine care.

1.8 Research Objectives

The current study aimed to evaluate the effectiveness of video-assisted distraction therapy on children's pain perception during peripheral venous cannulation.

1.9 Specific Objectives

To assess the level of pain perception among children in experimental and control group during and after two minutes of peripheral venous cannulation.

To compare the effectiveness of video-assisted Distraction Therapy on children's pain perception in experimental group and control group.

To find the association between the level of pain perception during peripheral venous cannulation with selective demographic variables in both experimental and control group.

1.10 Operational Definition

Peripheral Venous Cannulation: Peripheral venous cannulation is the insertion of a vascular access device into a peripheral vein. It is a procedure in which the patient’s skin is wounded with a needle to allow insertion of a temporary plastic tube into a vein.

Distraction Therapy: Non pharmacological pain management consists of a variety of physical, cognitive-behavioral, and lifestyle pain management strategies that target the body, mind, spirit, and social interactions.

Video-assisted Distraction Therapy: Different videos such as 'Chhota Bhim', 'Motu Patlu','Nepali cartoonstories', animated cartoon videos as distraction therapy as per age group and language preference were used before, during and after cannulation. It takes about 20 minutes.

1.11 Conceptual Framework

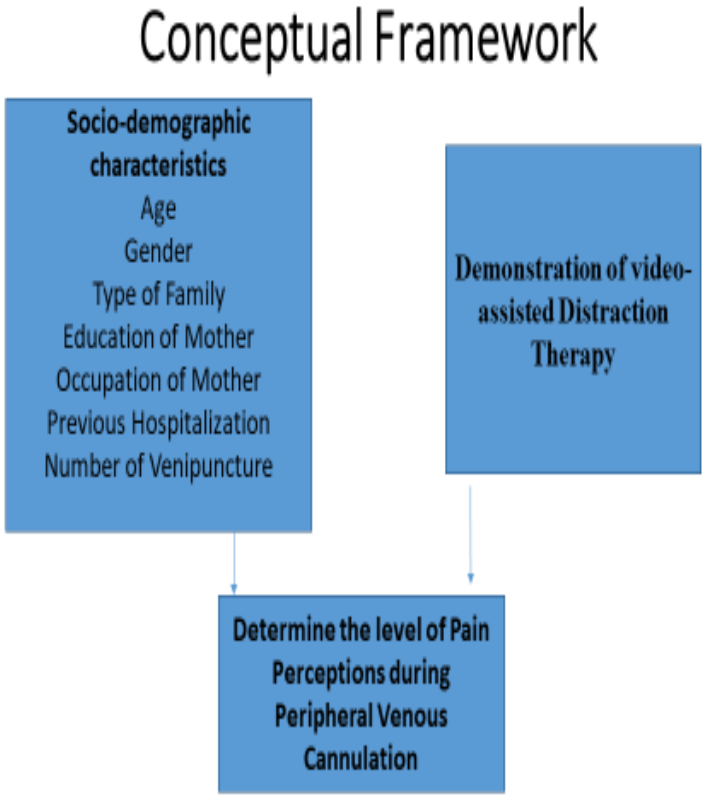


Figure 1: Conceptual Framework

CHAPTER II

LITERATURE REVIEW

2.1 Review of Related Literature

During their developmental years, children's regular activities and rituals are negatively impacted by health crises and hospitalizations. The developmental stage of the kid, previous illness history, illness kind and intensity, and the child's support system during the crisis all have a significant impact on how well the hospitalization goes. Children do, however, have little coping skills to deal with pressures. The dread of physical harm and suffering is the most prevalent stressor in children of school age (8).

According to a study done on preschoolers in a few hospitals in Bangalore, every preschooler in the control group had excruciating pain when receiving intravenous medication. This finding suggests that using cartoon-based diversional therapy while receiving intravenous medication significantly reduces pain. The animated film was found to be significantly beneficial in lowering children's perceptions of pain and fear during venipuncture, according to the study's findings. The results showed that using animated cartoons as an intervention before, during, and after venipuncture significantly (p 0.001) reduced pain-related behavioral responses as well as lowered sense of fear. It is a non-pharmacological solution that works well, is simple, affordable, and doesn't require much training to utilize in a therapeutic setting (9).

According to some study findings, watching cartoons may be effective not only for quick interventions involving needles, such as blood-drawing and vascular access as well as vaccinations, but may not be effective for more involved procedures, like changing burn dressings, which cause more intense pain. Pediatric nurses must make sure that parents accompany their kids during grueling medical procedures, and they must offer support by instructing parents on how to divert the kid's focus from the operation (10). Children who received either VAD therapy or LA agent during IV cannulation reported less discomfort and had lower behavioral response scores than the control group, according to one of the interventional study's findings. In comparison to children undergoing video assisted diversion treatment (mean pain score: 2.62) and the placebo group (mean pain score:

2.58), children getting local anesthetic cream (mean pain score: 1.42) felt reduced discomfort (8).

Pediatric nursing refers to the specialized nursing care given to children during health and disease. Pain is a negative sensory and emotional sensation linked to both existing and potential damage (11). A nurse caring for children has a significant duty to eliminate or relieve pain and suffering wherever feasible because untreated pain can have a number of detrimental long-term effects. Children who are hospitalized experience pain from vein puncture as well. The second most typical reason for the severe pain people experienced while hospitalized was vein puncture (12). Using the proper pain management techniques, children are frequently treated for their pains. Although children cannot verbally convey their grief, they do it through their facial expressions, actions, and behaviors. The FLACC scale (Face Legs Activity Cry Consolability) is the most practical scale for measuring pain in children (13).

Distraction aids in turning a child's focus away from unpleasant stimuli and toward something enjoyable. Additionally, it lessens the likelihood that the child will recall the unpleasant experience linked to intrusive treatments, which may prevent the creation of a memory that is exaggerated in a negative way (15). The results of the present study showed that the use of cartoon movies during venipuncture was effective in reducing pain, as shown by the significant difference in pain scores (p 0.05) observed between the study and control groups. The majority of children from the study group experienced mild (66.66%) to moderate pain (33.33%) during venipuncture, whereas in the control group 60% of children experienced moderate and 40% had severe pain (16).

2.2 Summary of literature review

Every youngster who undergoes an intrusive operation like a venipuncture experiences stressful and unpleasant bodily and psychological effects. According to the study, video-assisted Distraction Therapy was very efficient at distracting children from their pain during intravenous cannulation. The literature has also demonstrated that people experience pain independent of their age, gender, caste, religion, occupation, or other demographic factors. The experimental group and the control group experienced pain differently. It is an easy and affordable method to reduce pain and obtain children's cooperation is to employ a cartoon distraction film to divert their attention during a painful process.

CHAPTER III
RESEARCH METHODOLOGY

3.1 Research Designs

A quasi-experimental research design was used for conducting this study. The control group and experimental group were used and intervention was received by the experimental group only. There was no randomization. Post-test only design was used for the study.

3.2 Population and Setting

The target populations was children aged between two to seven years old undergoing peripheral venous cannulation. The study included the twopart of children in the control group and one part of children in the experimental group (2:1). The study was conducted at the emergency department of Koshi Hospital and Hamro Aspatal Pvt. Ltdof Biratnagar.

3.3 Sampling

The usual case control ratio is 1:1.Increasing the ratio of controls to cases increases the precision and efficiency of the analysis but it also increases the cost to undertake the study. In this study 1:2 ratio of cases and control was allocated. The children were allocated to experimental group 40 and 80 in the control group. Forty children were selected in experimental group from Hamro Aspatal Pvt. Ltd, Biratnagar. Eighty children were selected in control group from Koshi Hospital Biratnagar. Data was collected in the procedure room of the Emergency Department. Children from 2 to 7 years of age were included in the study.

3.4 Sample Size Calculation

The sample size was calculated using the formula Sample size (n) = $2X (Z_{1-\alpha} X Z_{1-\beta}) \{\sigma /(\mu_1-\mu_2)\}^2$ (sample size calculation document) using the following assumptions: 95%

confidence interval (CI), Power (1-β) =80%, the ratio of sample size 1:2, SD of pain score in experimental group= 1.85 during venipuncture, mean difference (μ_1-μ_2) = 1.15 based on a previous study (effectiveness of animated cartoon video as a distraction)

The total sample size was 120

Sample size of experimental group(X) =40

The sample size of the control group (y) =80

95% confidence interval (CI) (α) = 0.05

Power (1-β) = 80%

Standard Deviation (σ) = 1.85

Mean difference (μ_1-μ_2) = 1.15

Sample size (n) = 2X ($Z_{1-\alpha}$X $Z_{1-\beta}$) $\{\sigma /(\mu_1-\mu_2)\}^2$ (sample size calculation document)

= 2X (1.94 X 0.84) $\{1.85/1.15\}^2$

= 2X 7.84X 2.58

= 40.45

=40

Experimental and control ratio 1:2

= 40:80

= 120

Therefor the desirable sample size for the study was 120.

3.5 Inclusion Criteria

Children aged between 2-7 years

Children undergone peripheral venous cannulation

Children whose parents are willing to participate

3.6 Exclusion Criteria

Children having other procedure e.g. Central line

Children having developmental disorders

Children having verbal and hearing impairment

Children receiving analgesics or anesthesia

3.7 Ethical Consideration

Ethical Approval was obtained from the Ethical Review Board (ERB) of Nepal Health Research Council (NHRC). Informed consent was taken from the parent before

implementation of Peripheral Intravenous Cannulation. The purpose of the study was explained to the parents and the children. Written Permission before and after the study was taken from the administrative department of respective Hospitals.

3.8 Instrument

The three sections of the data collection tool were as follows: sociodemographic characteristics made up the first part. Age, gender, birth order, place of residence, type of family, religion, occupation of the father and mother, level of education of the mother and father, and any previous hospitalizations within a year comprised the children's socio-demographic information. The assessment of children's discomfort by face, legs, activity cry, and the consoleability (FLACC) scale were all included in the second section.

The (FLACC) pain scale offers a 0–10 scale for rating pain. The researcher must watch a youngster for one to five minutes before using the FLACC scale. The behavioral score (FLACC) in each category is graded on a scale of 0 to 10. From 0 to 1, people are relaxed and comfortable, from 3 to 6, they are in moderate pain, and from 7 to 10, and they are in severe pain or discomfort, or both. Excellent correlations for the blinded observers' total FLACC scores (r 0.8-0.883; P 0.001) provided evidence for test-retest reliability (13).

3.9 Data Collection Procedure

After receiving the ethical approval from NHRC and the authority of Koshi Hospital, all the nursing personnel involved in the procedure were informed about the intervention. Children's parents were present throughout the procedure with the child belonging to both the study and control group. Distraction in the form of video on animated cartoon was initiated ten minutes prior to the procedure for the study group and continued throughout the procedure. The control group received the routine care. The level of pain was assessed by using FLACC Pain Scale immediately after the procedure or peripheral venous cannulation. The observation was documented immediately after the procedure. The same observation was carried out for children from the control group without intervention. Data was collected from February 27 to 28 April 2023.

3.10 Instructions and Time Schedule for Data Collection

Table 3.1: Instructions and Time Schedule for Data Collection

Time	Experimental Group	Control Group
10 minutes before IV cannulation	Observe for at least 2-5 minutes. Observe legs and body uncovered. Start the cartoon show as intervention-distraction therapy.	No intervention(No distraction)
10 minutes	Perform IV cannulation by staff. Pain was assessed by the nursing incharge/matron at time of insertion of IV cannula using FLACC pain scale, cartoon show will continued by researcher by using tab.	IV cannulation was done, pain was assessed during the insertion of IV cannula using FLACC pain scale by ward incharge.
20 minutes	Cartoon distraction finished. Level of pain after 2 minutes will be assessed.	Level of pain after 2 minutes will be assessed.
Post Procedure	Child will allowed to go to bed.	Child will allowed to go to bed.

3.11 Plan for Data Analysis

Data will be analyzed on the basis of research objectives, research hypothesis. Data will be analyzed by using descriptive statistics i.e. frequency, percentage, mean, median, percentage, standard deviation). A p-value <0.05 will be considered to be

statistically significant. The statistical package for social science (SPSS, Version 16) will be used for data processing and statistical analysis such as frequency, percentage, mean, SD, paired t-test, chi-square and Fisher exact test will be used.

3.12 Schematic Diagram of Research Methodology

Effectiveness of video-assisted Distraction Therapy on Children's Pain Perceptions during Peripheral Venous Cannulation

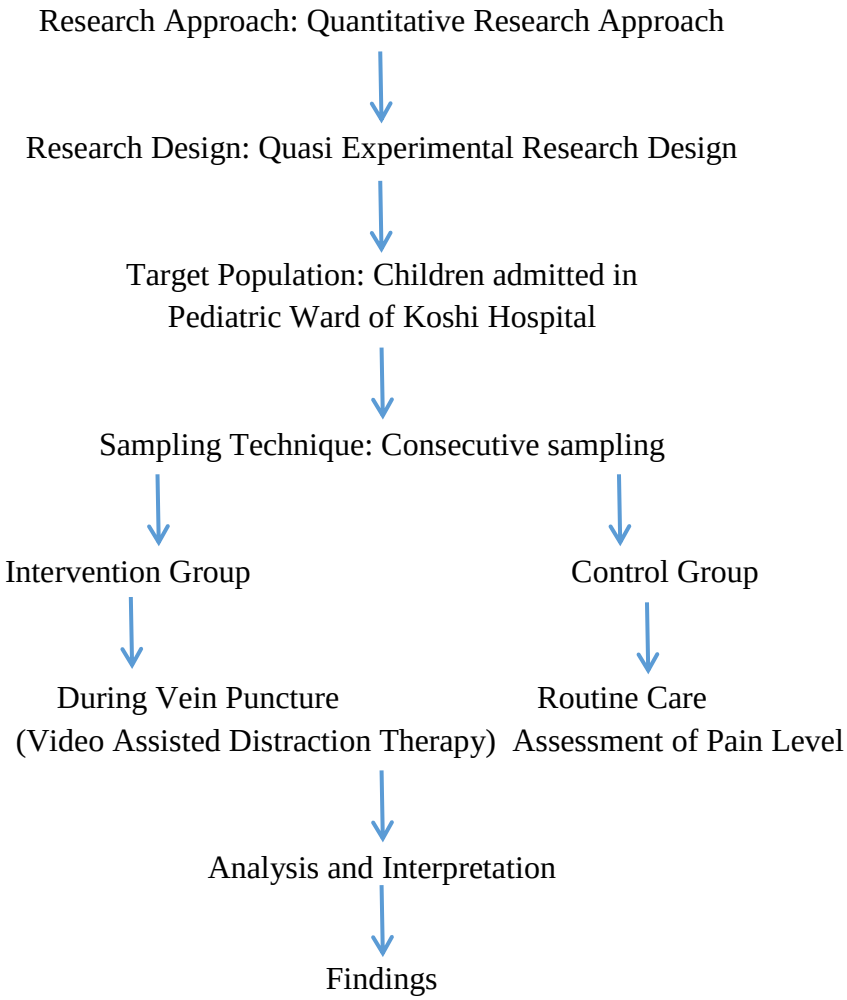


Figure 2: Schematic Diagram of Research Methodology

CHAPTER IV

FINDINGS OF THE STUDY

4.1 Introduction

Data was analyzed on the basis of research objectives, research hypothesis. Data was analyzed by using descriptive statistics i.e. frequency, percentage, mean, range, standard deviation). Inferential statistics was used to compare the means between two groups, for that independent t test was used. Fisher exact test was used to test the association of selective demographic variables with level of pain during and after two minutes of peripheral venous cannulation. The statistical package for social science (SPSS, Version 16) was used for data processing and statistical analysis. A p-value <0.05 was considered to be statistically significant.

The data was displayed in academic tables from table number 1 to table number 8. In table 1, shows the socio-demographic characteristics of Children including age group, religion, and occupation of parents, types of family and place of residence. In table 2, Respondent's Past History including frequency of Hospitalization, duration of Hospitalization, number of Venipuncture in experimental and control groups was demonstrated. In table 3 and 4, Comparison between Experimental and Control Group Pain Perception during and after 2 minutes of cannulation has shown. In table 5 and 6,Comparison of Pain Score between Experimental and Control Group during Cannulation and after cannulation using independent t test was displayed in the p- value <0.05 level of significance. In table 7 and 8, the association of socio-demographic characteristics and level of Pain in experimental and control was group has been shown.

Table 4.1: Socio-demographic Characteristics of Children

Socio-demographic Characteristics	Experimental Group (n=40) number	%	Control Group (n=90) Number	%
Age Group				
2-3 Year	15	37.5	23	28.75
4-5 Year	20	50	22	27.5
6-7 Year	5	12.5	35	43.75
Gender				
Male	16	40	48	60
Female	24	60	32	40
Religion				
Hindu	37	92.5	62	77.5
Others	3	7.5	18	22.5
Father's Occupation				
Farmer	9	22.5	5	6.2
Labor	5	12.5	58	72.5
Business	6	15	2	2.5
Service	20	50	15	18.8
Mother's Occupation				
House Maker	34	85	76	95
Service	6	15	4	5
Type of Family				
Nuclear	14	35	35	12
Joint	26	65	65	68
Residence				
Rural	13	32.5	36	45
Urban	27	67.5	44	55

Table no 4.1 has shown that 50% respondents in experimental group representing the preschool and 43.75% in the control group from school age. Seventy three percent children's father's occupation was labor background then others and in experimental group 50% father's from service background.

Table 4.2: Past History of Respondents

Variables	Experimental Group (n=40) Frequency	%	Control Group (n=80) Frequency	%
Frequency of Hospitalization				
< 7 times	40	100	46	57.5
> 7 times	-	-	34	42.5
Duration of Hospitalization				
<7 days	23	57.5	20	25
> 7 days	17	42.5	60	75
Number of Venipuncture				
<7 times	38	95	41	51.2
> 7 times	2	5	39	48.8

Table no. 4.2 has depicted that all children were admitted in hospitals less than seven times in experimental group, 57.5% children were admitted in hospital less than seven times and 42.5% respondents more than seven times in control group. Most of the children in experimental group had less than seven times venipuncture history but in control group, the venipuncture history was in both less than seven times and more than seven times was (51.2%) and (48.8%).

Table 4.3: Comparison between experimental and Control Group Pain Perception during Cannulation

Level of Pain	Experimental Group (n=40) Number	%	Control Group (n=80) Number	%
Mild Discomfort	15	37.5	-	-
Moderate Pain	17	42.5	6	7.5
Severe Pain	8	20	74	92.5
Total	**40**	**100%**	**90**	**100%**

Table no 4.3 has depicted that 42.5% respondents in experimental group has perceived moderate pain, 37.5% perceived mild pain and 20% reported severe pain during peripheral venous cannulation whereas in control group,92.5% respondents perceived severe pain and only 7.5% has perceived moderate pain during peripheral venous cannulation.

Table 4.4: Comparison between Experimental and Control Group on Level of Pain Perception after Two Minutes of Cannulation

Level of Pain	Experimental Group (n=40)		Control Group (n=80)	
	Number	%	Number	%
Mild Discomfort	29	72.5	7	8.8
Moderate Pain	9	22.5	58	72.5
Severe Pain	2	5	15	18.8
Total	**40**	**100%**	**90**	**100%**

Table no 4.4 has shown the level of pain between experimental and control group after two minutes of peripheral venous cannulation. In experimental group, 72.5% children perceive mild discomfort, 22.5% children perceive moderate pain and 5% perceive severe pain. In contrast to experimental group, 72.5% children still perceive moderate pain, 18.8% perceive severe pain and 8.8% perceive mild discomfort after two minutes of cannulation

Table 4.5: Comparison of Pain Score Between Experimental and Control Group During Cannulation

Group	Sample	Mean	SD	T Value	*p*Value
Experimental	40	2.82	0.74		
				-11.80	0.000*
Control	80	3.92	0.26		

Table no 4.5 has illustrated the comparison of pain score between experimental and control group during cannulation, here we can see that the mean value of pain is high in control group than in experimental group, independent t test value is -11.80 and the p value is 0.000, which is less than 0.05 level of significance and there is significant difference between the pain perception in experimental and control group.

Table 4.6: Comparison of Pain Score between Experimental and Control Group After 2 minutes of Cannulation

Group	Sample	Mean	SD	T Value	*p*Value
Experimental	40	2.82	0.572		
				-7.458	**0.000***
Control	80	3.10	0.518		

Table no 6 has shown that there is difference in mean score in experimental and control group after two minutes of peripheral venous cannulation so the pain perception is significantly different in two group.

Table 4.7: Association between Socio-demographic Characteristics and Level of Pain in Experimental Group

Socio-demographic Characteristics	Level of Pain						*P*_value
	Mild Discomfort		Moderate Pain		Severe pain		
	No	%	No	%	No	%	
Age Group							
Toddler	4	26.7	7	46.7	4	26.7	0.834
Preschool	9	45.0	8	40.0	3	15.0	
School age	2	40	2	40	1	20	
Gender							0.331
Male	5	31.2	9	56.2	2	12.5	
Female	10	41.7	8	33.3	6	25.0	
							0.493
Religion							
Hindu	12	32.4	17	45.9	8	21.6	
Others	3	100	-	-	-	-	
Duration of Hospitaization							
< 7 days	12	52.2	8	34.8	3	13.0	0.075
> 7 days	3	17.6	9	52.9	5	29.4	
Frequency of Venipuncture							
< 7 times	15	39.5	17	44.7	6	15.8	**0.015***
>7 times	-		-	-	2	100	

Table number 4.7 has shown that there was significant association between the number of venipuncture less than 7 times and the level of pain in experimental group (*p-value=0.015)* and about 95% children stayed in hospital less than seven days also.

Table 4.8: Association between Socio-demographic Characteristics and Level of Pain in Control Group

Socio-demographic Characteristics	Level of Pain				*P*_value
	Moderate Pain		Severe pain		
	No	%	No	%	
Age Group					
Toddler	-	-	23	100	
Preschool	1	4.5	21	95.5	0.107
School age	5	14.28	30	85.72	
Gender					
Male	4	8.33	44	91.66	0.544
Female	2	6.25	30	93.75	
Religion					
Hindu	2	3.22	60	96.77	**0.021***
Others	4	22.22	14	77.77	
Number of Hospital Stay					
< 7 days	-	-	46	100	**0.004***
> 7 days	6	17.64	28	82.36	
Duration of Hospitaization					
< 7 days	-	-	41	100	0.328
> 7 days	6	10	54	90	
Frequency of Venipuncture					
< 7 times	-	-	41	100	**0.011***
>7 times	6	15.39	33	84.61	

Table 4.8 has shown there was significant association of religion, number of hospital stay less than seven times and number of venipuncture less than seven times (p=0.021, p=0.004,p=0.011)

CHAPTER V

DISCUSSION, CONCLUSION AND RECOMMENDATION

5.1 Discussion

The specific objectives of the study were to assess the level of pain perception among children in experimental and control group during and after two minutes of peripheral venous cannulation, to compare the effectiveness of video-assisted Distraction Therapy on children's pain perception in experimental group and control group and to find the association between the level of pain perception during peripheral venous cannulation with selective demographic variables in both experimental and control group. The discussion was done as per the objectives of the study. The demographic characteristics of respondents has shown that about 50% respondents in experimental group representing the preschool and 43.75% in the control group from school age. Gender in both experimental group and control group was comparable. In control group, around seventy three percent children's father's occupation was labor background then others and in experimental group 50% fathers' from service background. Most of respondent's mothers in both experimental and control group were house maker. Majority of the family were joint family and from urban area.

Table no 2 has illustrated the children's past history, all children were admitted in hospitals less than seven times in experimental group. In contrast, 57.5% children were admitted in hospital less than seven times and 42.5% respondents more than seven times in control group. Regarding the duration, 57.5% children were stayed in hospitals less than seven days and 42.5% more than seven days in experimental group. On the other hand only 25% had stayed in hospital for less than seven days and majority of children had the history of hospitalization more than seven days with repeated hospitalization. In regard to number of venipuncture, most of children in experimental group had less than seven times venipuncture history but in control group, the venipuncture history was comparable in both less than seven days (51.2%) and more than seven days (48.8%). The majority of children had a history of prior hospitalization and cannulation, according to a study done at the pediatric teaching hospital in Erbil City.(17) According to a similar study, 42 (56%) of the children had previously been hospitalized; of these, 32 (43.3) had previously undergone IV cannulation, and 29 (72.5) of them had undergone the procedure more than once (8).

Table no 3 has depicted that 42.5% respondents in experimental group has perceived moderate pain, 37.5% perceived mild pain and 20% reported severe pain during peripheral venous cannulation whereas 92.5% respondents perceived severe pain and only 7.5% has perceived moderate pain during peripheral venous cannulation. This has indicated that the children in experimental group perceive less pain with distraction therapy then in control with routine care during peripheral venous cannulation.According to a study done in a few hospitals in Bangalore, every preschooler in the control group experienced more acute discomfort during intravenous cannulation than the experimental group did (9). A other study found that the control group experienced moderate to severe pain more frequently than the group that watched videos for diversion. The majority of the children in the intervention group were distracted by a video or animation on their tablet or TV and unresponsive during the cannulation operation, which made it effective at relieving pain by distracting the kids.(17) According to similar research, during venous cannulation, children in the experimental group experienced less overall discomfort than children in the control group, with a mean difference of 2.31 units, a median of 2.5 units, and a mode of 5 units.(14)

Table no 4 has shown the level of pain between experimental and control group after two minutes of peripheral venous cannulation. In experimental group, 72.5% children perceive mild discomfort, 22.5% children perceive moderate pain and 5% perceive severe pain. In contrast to experimental group, 72.5% children still perceive moderate pain, 18.8% perceive severe pain and 8.8% perceive mild discomfort after two minutes of cannulation.The results show that the control group felt more pain than the experimental group.

According to a study done in Kolhapur, India, the overall pain score of the experimental group's young subjects was lower than that of the control group after two minutes of venipuncture, with a mean difference of 6.25 units, a median of 2, and a mode of 4 units. This means that, as a result of the video distraction, the amount of pain in the experimental group was lower than in the control group at the mild, moderate, and severe levels. (14)

Table no 5 has illustrated the comparison of pain score between experimental and control group during cannulation, here we can see that the mean value of pain is high in control group than in experimental group, independent t test value is -11.80 and the p value is 0.000, which is less than 0.05 level of significance and there is significant difference between the pain perception in experimental and control group which suggest that the pain perception in experimental group is low than control group. It indicates that video-assisted distraction

therapy is very highly effective method to divert the pain perception during cannulation in children.

According to a study carried out in a few prestigious hospitals in India, there was a substantial difference in the post-test degree of pain between the two groups, with the p value of pain between the two groups being 0.01, which is statistically significant at the p0.05 level (18). In line with this, a different study found that the experimental group's mean pain score was 4.6 while the control group's was 7.7, with a mean difference of 3.2 that is significant at the 0.05 level of significance (19). Another study with similar results indicated that, at the p0.001 level, the children getting distraction therapy during IV cannulation experienced less discomfort (mean=3.9, SD=1.28) than the control group receiving standard care (mean=8.7, SD=1.0) (20).

After two minutes of peripheral venous cannulation, Table No. 6 demonstrates that there is a difference in mean scores between the experimental and control groups. Since the pain perception in the two groups is significantly different, it can be said that the experimental group experiences less pain than the control group as a result of the intervention. Numerous investigations have demonstrated a statistically significant difference between experimental and control group scores after an intervention or two minutes following a procedure (14).

The association of children's socio-demographic characteristics and the level of pain perception in experimental group has been displayed in table 7. There was significant association between the number of venipuncture less than 7 times and the level of pain in experimental group (*p-value=0.015)* and about 95% children stayed in hospital less than seven days also. There is no association of others demographic variables i.e. age group, gender, religion, duration of hospitalization of children. The study, which lasted three months and involved 180 children, found no differences between the experimental and control groups in terms of the relationship with demographic factors such age, gender, religion, and length of hospitalization (p>0.05) (21). According to a different study, there is no correlation between prior cannulation history and pain intensity (9).

Table 8 shows the correlation between children's sociodemographic traits and the degree of pain perception in the control group. Religion significantly correlated with the number of hospitalizations under seven, as well as the number of venipunctures under seven (p=0.021,

p=0.004, and p=0.011). Age, gender, and length of hospital stay were not linked to sociodemographic factors. According to a study done in a few hospitals in India, there was no correlation between demographic factors and pain levels (18).

5.2 CONCLUSION

The study has shown that children getting peripheral venous cannulation experience pain subjectively and uniformly. Every youngster who undergoes an intrusive operation like a venipuncture experiences stressful and unpleasant bodily and psychological effects. According to the study, video-assisted Distraction Therapy was very efficient at distracting children from their pain during intravenous cannulation. The research has also demonstrated that people experience pain independent of their age, gender, caste, religion, occupation, or other demographic factors. The experimental group and the control group experienced pain differently. It is an easy and affordable method to reduce pain and obtain children's cooperation is to employ a cartoon distraction film to divert their attention during a painful process.

5.3 RECOMMENDATION

The current study results strongly suggested that routine nursing interventions in pediatric settings, such as emergency, pediatric, and other child related departments, could be implemented using video assisted distraction therapy, such as cartoon videos and cartoon movies according to age group and language preference. For additional validation, similar studies might be undertaken in various contexts. To generalize the results, comparative research can be carried out in a variety of private and public settings. You can conduct a Randomized Control Trial (RCT) on a sizable population.

5.4 IMPLICATION OF THE STUDY

To implement the distraction therapy effectively, pediatric nurses should receive training. It is possible to create a standard protocol for using an age-appropriate cartoon story or movie during venipuncture. A standard policy should be created and followed on a regular basis to evaluate the level of pain experienced by hospitalized children during difficult procedures. The results indicated that an age-appropriate pain assessment tool may be created for the

uncomfortable treatment. Nursing students might practice throughout their clinical rotations in pediatric wards and emergency rooms.

5.5 LIMITATION OF THE STUDY

Because of short duration for the study, the large number of sample and multiple setting cannot be covered.

MAJOR REFERENCES

1. Debnath S, Das N, Sahoo P. Effectiveness of Distraction Therapy on Pain Relief among Children Undergoing Vein-Puncture in a Selected Hospital, Bhubaneswar. J Adv Res Med. 2020 Oct 26;07(02):15–21.Jackson A. Reflecting on the Nursing Contribution to Vascular Access. British journal of nursing. 2003; 12 (11): 657. Available from: DOI:https://doi.org/10.12968/ bjon.2003.12.11.11315
2. Kaur B, Sarin J, Kumar Y. Effectiveness of Cartoon Distraction on Pain Perception and Distress in Children During Intravenous Injection. Journal of Nursing and HealthScience. 2014; 3(3): 8-9, 13.
3. Abd El-Gawad S M E-K, Elsayed L A. Effect of Interactive Distraction Versus Cutaneous Stimulation for Venipuncture Pain Relief in School Age Children. Journal of Nursing Education and Practice. 2015; 5(4): 32-38. Available from: https://
4. Maharjan S, Maheswari BU, Maharjan M. Effectiveness of animated cartoon as a distraction strategy on level of pain among children undergoing venipuncture atselected hospital. Int J Health Sci Res. 2017; 7(8):248-252
5. Inal S, Kelleci M. Distracting children during blood draw: looking through distraction cards is effective in pain relief of children during blood draw. Int J Nurs Pract. 2012;18:210–219.
6. Van Cleve, Lois et al. "Pain Experience in Children With Advanced Cancer." *Journal of Pediatric Oncology Nursing* 29 (2012): 28 - 36.
7. D'Souza A, et al: Effectiveness of video assisted diversional therapy and application of local anaesthetic agent on pain, behavioural response and physiological parameters among children during Intravenous (IV) cannulation
8. Shrestha R, Jeneta BJJ. A study to evaluate the effectiveness of cartoon based diversional therapy on pain during intravenous medication among preschoolers in selected hospitals, Bangalore. Int J Health Sci Res. 2018; 8(11):185-193.
9. Inan G and Inal S. The Impact of 3 Different Distraction Techniques on the Pain and Anxiety Levels of Children During Venipuncture A Clinical Trial. Clin J Pain 2019; 35(2):140-147.
10. Treesa E, Soud J, Roger S. Manual of pediatric emergency Nursing. 2nd ed. MOSBY, Philadelphia. 2008.
11. McLaren JE, Cohen LL. A comparison of distraction strategies for venipuncture distress in children. Journal of Pediatric Psychology 2005; 30(5): 387-396.

12. S Merkel and others, A behavioral scale for scoring postoperative pain in young children, 1997, Pediatr Nurse 23(3), p. 293–297).
13. Chongtham P, Shinde J. Effectiveness of Animated Cartoon Video as a Distraction Strategy on Pain Perception during and after Venipuncture among Preschoolers. www.ijsr.net ;Volume 5 Issue 10, October 2016
14. Noel M, McMurtry CM, Chambers CT, McGrath PJ. Children's memory for painful procedures: The relationship of pain intensity, anxiety, and adult behaviors to subsequent recall. J. Pediatr. Psychol. 2009 Nov 4;35(6):626-36.
15. Safiya et al: Effect of watching animated cartoon film on level of pain during venipuncture. Int J Cur Res Rev | Vol 14 • Issue 01 • January 2022.
16. Shaker NZ, Taha AA. Effectiveness of Distraction Therapy on Children's Pain Perceptions During Peripheral Venous Cannulation at Pediatric Teaching Hospital in Erbil City. Erbil j. nurs. midwifery [Internet]. 2018 Nov. 30 [cited 2023 May 27];1(2):75-84. Available
17. Debnath S, Das N, Sahoo P. Effectiveness of Distraction Therapy on Pain Relief among Children Undergoing Vein-Puncture in a Selected Hospital, Bhubaneswar. J Adv Res Med. 2020 Oct 26;07(02):15–21.
18. Shivcharan G, Jyotsna D, Shubhang B. Effectiveness of Cartoon Movies as Distracter on Pain among Children Undergoing Venipuncture. International Journal of Science and Research (IJSR) 2013; 6(14): 319-324.
19. P. C. Effectiveness of distraction techniques on pain relief during intravenous cannulation among the school children in selected pediatric wards at AIMS, Kochi. Pondicherry Journal of Nursing, Vol 7; Issue 1; pp: 29-33. January-April 2014 ISSN 2279-0144 .An International Peer Review. Pondicherry J Nurs. 2014 Jan 1;7:29–33.
20. Inan G, Inal S. The Impact of 3 Different Distraction Techniques on the Pain and Anxiety Levels of Children During Venipuncture: A Clinical Trial. Clin J Pain. 2019 Feb;35(2):140–7.

Appendices

Research Tools for Data Collection

Title: Effectiveness of video-assisted Distraction Therapy on Children's Pain Perceptions during Peripheral Venous Cannulation at Pediatric Wards of Biratnagar

Date of Data collection:

Code Number:

Introduction of Principal Investigator & Co-Investigators

I am Ms. Menuka Bhandari, Lecturer & my Co-Investigators: Ms. Munawatee Rai, Teaching Assistant and Karishma Khadgi, Instructor going to conduct the research entitled **Effectiveness of video-assisted Distraction Therapy on Children's Pain Perceptions during Peripheral Venous Cannulation at Pediatric Wards of Biratnagar.**

Instruction: ***Please write in blank spaces and put tick marks where given***. It consists of two parts i.e., part I include Socio-demographic information, and part II includes **Video-Assisted Distraction Therapy** and the observation tool for assessment of children's pain by face, legs, activity cry, and the console ability (FLACC) scale.

Part I: Socio-demographic information

Q. N	Questions	Options
1.	What is your age in completed years?	
2	Sex	1.Male 2.Female 3.other specify
3	Ethnicity (on the basis of surname)	1. Dalit 2. Relatively disadvantaged Janajati 3. Relatively advantaged Janajati 4. Other socially excluded 5. Religious minorities 6. Brahmin / Chhetri
4	What is your religion?	1. Hindu 2. Buddhist 3. Muslim 4. Kirat 5. Christian 6. Others (specify)…….
5	Number of Hospital stay in past	
6.	Duration of Hospitalization in Past	
	Number of Venipuncture in Past	
7.	Education of Mother	
8.	Education of Father	
9.	Occupation of Father	
10.	Occupation of Mother	
11.	Type of family	1. Nuclear 2. Joint
12.	Place of residence	1. Rural 2. Urban

Revised-FLACC						
Categories	0	1	2	Individualizedbehaviors	During Procedure	After 2 Minutes
Face	Noparticular expression orsmile	Occasional grimaceor frown; withdrawnor disinterested; appearssador worried	Consistentgrimace orfrown; Frequent/ constantquivering chin,clenched jaw; Distressedlooking face;Expressionof frightorpanic Other (write-in)	Examples:‘Pouty’lip; clenchedandgrinding teeth;eyebrows furrowed;stressed looking;sternface;eyes wideopen,looks surprised;blank expression; non-expressive		
Legs	Normal positionor relaxed; usualtone andmotion tolimbs	Uneasy, restless,tense; occasional tremors	Kicking,orlegs drawnup;marked increasein spasticity,constant tremorsorjerking Other(write-in)	Legsandarms drawnto centerofbody; clonusin leftlegwithpain; very tenseandstill;legs tremble		
Activities	Lyingquietly, normal position, moves easily; regular, rhythmic respirations	Squirming, shiftingback andforth,tense orguarded movements; mildlyagitated (e.g.head backand forth, aggression); shallow, splinting respirations, intermittent sighs	Arched,rigidor jerking;severe agitation;head banging;shivering (notrigors);breath holding,gasping or sharpintakeof breaths,severe splinting Other(write-in)	Grabsat siteofpain; nodshead;clenches fists, drawsuparms; archesneck;arms startle;turnssideto side;headshaking; pointstowhere it hurts;clenches fistto face,hitsself, slapping;tense, guarded,posturing; thrashesarms;bitespalm ofhand;holdsbreath		

Cry	Nocry, no verbalization	Moansor whimpers; occasional complaint; occasional verbaloutburst or grunt	Cryingsteadily, screamsorsobs, frequentcomplaints; repeatedoutbursts, constantgrunting Other(write-in)	States,‘I’m okay’or ‘Alldone’;mouthwide open;states ‘Owie’or ‘No’;gasping, screaming;gruntsor shortresponses;whining, whimpering, wailing,shouting;asks formedicine;cryingis rare		
Consolability	Contentand relaxed	Reassuredby occasional touching, huggingor beingtalkedto; distractible	Difficulttoconsole orcomfort; pushing awaycaregiver, resistingcareor comfortmeasures Other(write-in)	Respondstocuddling, holding,parent,stroking, kissing;distantand unresponsivewhenin pain		

भाग २ : FLACC को प्रयोगबाट दुखाईको मापन

भागहरु	०	१	२	ब्यवहारहरु	सुईलागाएकोबेलाको**स्कोर**	दुईमिनटपछिको**स्कोर**
अनुहार	कुनैखासभाव वामुस्काननभएको	मुखबिगारेको,चाखन दिएको ,दुखी/चिन्तितअनुहार	निरन्तरचिउडोकापिरहने ,दाराकिटिरहने,अनुहार मातनावदेखिने,डरवाआतंकितअभिव्यक्तिदिने	ओठचुप्पपार्ने,दाह्राकिट्ने,आखे भौहरुफराकिलोपार्ने,तनावयुक्त अनुहार,आखाठुलोपारेरहेर्नु,छक्कपर्नु, खालीअभिव्यक्ति		
खुट्टा	सामान्यअवस्थामा,नर्मल टोनरचालखुट्टामा	असजिलो,आरामनभएको,बेलाबेलाकाम्ने	खुट्टालेहान्ने,अररोहुने,निरन्तरकाम्नेरखुट्टालेहिर्काउने	हातखुट्टाहरुशरीरकोकेन्द्रतिरतान्ने,धेरैतनाव,खुट्टाकाप्नु		
गतिबिधि	शान्तरहेको,सामान्यपोजिसन ,सजिलोगरीचल्ने,नर्मलस्वासप्रस्वास	जीउअगाडिपछाडिगर्ने , तनावरझर्केको, टाउकोअगाडिपछाडिगर्नेररिसाउने	धनुषजस्तैबांग्गीने,अररोवाकाम्ने,धेरैझगडागर्ने, टाउकोठोक्ने,कम्पनआउने,स्वासरोक्ने,सासफेर्न गाह्रोभएजस्तोगर्ने, धेरैकडाभएजस्तोगर्ने	दुखेकोसाईटमासमात्त्नु, टाउकोहल्लाउनु,मुठ्ठीकस्नु,हात तनक्कपार्नु, हातझड्कार्नु,दुखेकोठाउमादेखाउनु,आफैलाईहिर्काउनु,तन्नावा मुद्रा		

रुवाई	कुनैरुवाई,आवाजननिकाल्ने	बिलापगर्ने ,संकिने,गुनासोगर्ने, मौखिकआक्रोशवाघुर्ने	लगातारराेइरहने,चिच्याउने,बारम्बारकम्प्लेनेकम्प्लेनगर्ने,	"मठीकछुवासबैसकियो"भन्ने ,मुखखुल्लागरेरखुइयगर्नु ,सासरोक्नु,चिच्याउनु,छोटोप्रतिक्रियागर्नु,औषधीमाग्नु		
सान्त्वना	आरामरफकिएको	सुम्सुमाउदा, अगालोहाल्दाशान्तहुने	शान्तहुनवाफकिनगाह्रोहुने, नर्सिङ्गकेयरलिननमान्नेवाअन्यशान्तआरामकाउपायहरुप्रतिबेवास्तागर्ने	बोक्दा,थपथपाउदा, मसार्दा,किसागर्दारेस्पोन्सगर्नु, दुखेकोबेलाबेवास्तागर्नु		

Instructions

Patients who are awake:

- Observe for at least 2-5 minutes.
- Observe legs and body uncovered.
- Reposition patient or observe activity; assess body for tenseness and tone.
- Initiate consoling interventions if needed.

Patients who are asleep:

- Observe for at least 5 minutes or longer.
- Observe body and legs uncovered.
- If possible reposition the patient.
- Touch the body and assess for tenseness and tone.

Each category is scored on the 0-2 scale which results in a total score of 0-10.

Assessment of Behavioural Score:
0 = Relaxed and comfortable
1-3 = Mild discomfort
4-6 = Moderate pain
7-10 = Severe discomfort/pain

Reference: Merkel S, Voepel-Lewis T, Shayevitz JR, et al:*The FLACC: A behavioural scale for scoring postoperative pain in young children.* Pediatric nursing 1997; 23:293-797

Information to Participant Sheet

Statement of the study:**Effectiveness of Video-assisted Distraction Therapy on Children's Pain Perceptions during Peripheral Venous Cannulation at Pediatric Wards of Biratnagar**

Purpose and methods: The current study aimed to evaluate the effectiveness of video-assisted distraction therapy on children's pain perception during peripheral venous cannulation. As a respondent in this study, you will be asked to provide demographic information, provide informed consent as a research participant on behalf of your child and provide cooperation during the procedure of cannulation using video-assisted distraction therapy.

Expected duration of participation and frequency of contact: The potential participants will be informed that the entire study will require approximately 20-25 minutes of their time. You and your child have to give information and take part in this study only one time.

Direct or indirect benefits: There may be no direct benefit to you as a result of participating in this study; however, you child may be benefitted from knowing information related to effectiveness of video-assisted distraction therapy on children's pain perception during peripheral venous cannulation. Your child may feel less pain while using distraction therapy.

Foreseeable risks, discomfort, or inconvenience to the participant: There are no risks attached to participation in this study. Emotional discomfort or stress- There is a very small chance that if you decide to participate in the study, you might experience a mild form of emotional distress

Confidentiality: Your responses and demographic information will be kept confidential and will only be used by the principal investigator for analysis purposes.

Payment /Reimbursement: you will not receive any payment as a participant in this study.

Voluntary participation/withdrawal: Participation is voluntary. You do not have to participate in this study if you do not want to. If you agree to be in this study, but later change your mind, you may drop out at any time. There are no penalties or consequences of any kind if you decide you do not want to participate. You may choose to withdraw from the study at any time and for any reason without any consequence to you.

We would appreciate your participation in this study. The report of this research will be used by both institutions and organizations for designing an appropriate intervention.

We assure you that whatever information you provide will be kept confidential.

INFORMED CONSENT FORM

[Effectiveness of Video-assisted Distraction Therapy on Children's Pain Perceptions during Peripheral Venous Cannulation at Pediatric Wards of Biratnagar]

I, ……, male/female of …… years age, hereby confirm that

I have read and understood the information sheet and consent form for this research being conducted

by ……, and have had the opportunity to ask questions about it.

I hereby declare that,

1. I understand that my participation in the study is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected.
2. I understand that the researchers, the IRC and other regulatory authorities will not need my permission to look at my health records both in respect of the current study and any further research that may be conducted in relation to it, even if I withdraw from the study. I agree to this access. However, I understand that my identity will not be revealed in any information that will be published or released to the third parties.
3. I agree not to restrict the use of any data or results that arise from this study provided that such use is only for scientific purpose(s).
4. I agree to take part in this study.

Signature of the research participant	**Investigator's**
Signature : ……	Signature : ……
Name : ……	Name : ……
Date: ……	Date: ……

Roles and Responsibilities of Principal Investigator and Co-Investigator

Particulars	**Personnel**	**Roles and responsibility**
Proposal preparations and submission to UGC	Principle Investigator (PI) and Co-investigator	Prepare the proposal and collaborate with others in preparation. Assure that design is appropriate to objectives. Submit the proposal
Tool development and pretesting	PI and Co-I	Develop tool and consult with expert. Validation of tool. Pretesting of tool.
Nepali translation Back Translation	PI and Subject Expert	Translate the questionnaire consulting with subject expert. Back translation of the tool Validation of the tool
Data collection	PI and Co-I	Collaborate with provincial, local government and health institutions. Collect data with enumerators. Check for consistency and completeness.
Data analysis	PI and Co-I Statistician	Analyze data with help of a statistician. Use of appropriate statistical techniques while analyzing data
Progress Report	PI and Co-I	Preparation and submission of progress report to UGC and NHRC
Report preparation presentation and submission	PI and Co-I	Prepare reports on the basis of guidelines. Submit the reports.

Letter of Declaration

To Nepal Health Research Council, Nepal

Subject: Submission of proposal "**Effectiveness of Video-assisted Distraction Therapy on Children's Pain Perceptions during Peripheral Venous Cannulation at Pediatric Wards of Biratnagar**" for ethical clearance.

Dear Sir/madam,

I, Menuka Bhandari, on behalf of my Co-investigator (**Ms. Munawatee Rai and Puja Gartaula**), wish to submit a research proposal "**Effectiveness of Video-assisted Distraction Therapy on Children's Pain Perceptions during Peripheral Venous Cannulation at Pediatric Wards of Biratnagar"** for consideration for ethical clearance from NHRC.

I hereby certify that the proposal presented represents the valid work of the investigators. The investigators will not be challenged or contested by any individual whose name has not been stated in the present list of investigators.

The investigators have no conflict of interest.

I will bear responsibility for any mistake /irregularities in case any of the information provided above turns false**.**

Investigators (Name) signature

1. **Ms. Menuka Bhandari (PI)**
2. **Ms. Munawatee Rai (Co-I)**
3. **Ms. Puja Gadtaula**

सुचितसहमतिपत्र

मुख्य र सह-अनुसन्धानकर्ताको परिचय:

नमस्कार मेरो नाम मेनुका भण्डारी,

म त्रि.बि.चिकित्सा शास्त्र अध्ययन सस्थान अन्तर्गत विराटनगर नर्सिङ क्याम्पसमा कार्यरतछु' म लगायत मेरा सहकर्मीमिलेर "भिडियोको सहायताले भुल्याउने विधिको प्रयोगबाट बच्चाहरुलाई नसामा सुई लगाउदाको बेलामा दुखाई महशुसमा पार्ने प्रभावकारिता" बिषयमा अनुसन्धान गर्न गईरहेकाछौ।

म तपाईंलाई हाम्रो अनुसन्धान अध्ययनको बारेमा जानकारी दिनगइरहेकोछु र तपाईंलाई यसमा भाग लिन आमन्त्रित गरिरहेकोछु। तपाई यसअनुसन्धानमा सहभागि हुनुभएकोमा म धेरै आभार प्रकट गर्दछु। तपाईंले निर्णय गर्नुअघि, तपाईं अनुसन्धानको बारेमा कसैसित पनि छलफलगर्न सक्नुहुन्छ। जानकारीको क्रममा यदि तपाईंलाई प्रदान गरिएको जानकारीको बारेमा केहि बुझ्नुभएनभने, कृपया मलाई बताउनुहोस्, जबसम्म तपाईं स्पष्ट हुनुहुन्न तब सम्म म विस्तृत रूपमा वर्णन गर्नेछु। यदि तपाईंसँग पछि पनि केहि प्रश्नहरूछन्भने कृपया मलाई वा मेरो टीमलाई मेल पठाउनुहोस्।

अनुसन्धानको विषय :

यस अनुसन्धानको विषय "भिडियोको सहायताले भुल्याउने विधिको प्रयोगबाट बच्चाहरुलाई नसामा सुईलगाउदाको बेलामा दुखाई महशुसमा पार्ने प्रभावकारिता" कस्तो/कति छ भन्ने कुरा हुनेछ।

अनुसन्धानको उद्देश्य

अध्ययनको उद्देश्य भिडियोको सहायताले भुल्याउने विधिको प्रयोगबाट बच्चाहरुलाई नसामा सुई लगाउदाको बेलामा दुखाई महशुसमा पार्ने प्रभावकारिता कस्तो/कति छ भनेरहेर्नेहो। यस विधिमा बच्चालाई नसामा सुई लगाउनुभन्दा ५ मिनेट अगाडिबाट उमेर अनुसारको भुल्याउने भिडियो देखाईन्छ र सुई लगाउदाको समयमा निरन्तर उक्त भिडियो देखाई रहिन्छ, सोही समयमा दुखाईमा पनगर्ने FLACC Scale Scoring प्रयोग गरिन्छ जसले बच्चाहरुको अनुहार, खुट्टाहरुको चलाइ, रुवाइको हाउभाउ र फुल्याउने तरीकालाई हेरिन्छ। यसरी प्राप्त विवरणहरुलाई गोप्य राखिनेछ र अनुसन्धान प्रयोजनका लागि मात्र प्रयोग गरिनेछ ।

जोखिम र असुविधा

हामी आशागर्छौं कि यस अध्यनमा सहभागी हुनाले तपाईलाई कुनै पनि जोखिम पर्ने छैन। तर यस छलफलमा संग्लग्न समय र प्रयासले केहीलाई असुविधा हुनसक्छ। यदि तपाईं कुनै बिशेष प्रश्नको

जवाफदिन चाहनुहुन्नभने , तपाई कुनै पनि समयबहसलाई अस्विकार गर्न र छोड्न सक्नुहुन्छ , यसले तपाईंलाई कुनै पनि हिसाबले असर गर्दैन।

फाइदाहरु

यस अध्यनमा सहभागी हुनाले तपाइलाई प्रत्यक्षरुपमा फाइदा पुग्ने छैन , तर यदि भिडिओ देखाएर बच्चाहरुको आइभी क्यानुला लगाउदा बच्चा तथा आफन्तको शारीरिक तथा मानसिक पिडालाई कम गर्न सकियो र जनशक्ति अनि श्रोतसाधनको समुचित प्रयोग गर्न सकियो भने यो महत्वपुर्ण उपलब्धी हुनेछ। यो अनुसन्धानले बच्चावार्डहरुमा बिभिन्न किसिमका भिडियो गेम, पपेट आदिले बच्चाहरुलाइ नसामा क्यानुला लगाउदाको समयमा दुखाइ कम गर्न प्रभावकारी हुन सक्छ भन्ने कुरा पत्ता लगाउन खोजेको छ।

गोपनियता

अध्यनटोलीले तपाईंले दिएको जानकारीलाई गोप्यराखनेछ। प्रतयेक प्रनावालीलाई एक आदितियनम्बेर प्रदानगरिनेछ र तपाईंलाई पहिचान गर्न सक्ने सबै जानकारी डेटाबाटहटाइने छ। सबै जानकारी कम्प्युटरमा भण्डार गरिनेछ र केवल अनुसन्धान कर्मचारीहरुले पहुच गर्न सक्नुहुनेछ।

क्षतिपूर्ति

यस अनुसन्धानमा भाग लिनको लागि तपाईंलाई कुनै क्षतिपूर्ति दिइने छैन।

स्वेच्छिक सहभागिता र अधिकार

यस अध्यनमा तपाईको सहभागिता पूर्ण तया स्वेच्छिक हो । तपाइले भागलिन रोज्नु भएन भने पनि, तपाईलाई कुनै नोक्सान हुने छैन । यसले तपाईको कसैसंगको सम्बन्धलाई असर गर्दैन र तपाईलाई हानी पुर्याउनसक्ने कुनै परिणाम हुने छैन।

परिणामको प्रकाशन

यस अनुसन्धानको नतिजालाई कोशी अस्पताल ,बच्चा वार्ड तथा कार्यरत संग साझागरिने छ जसले गर्दा आगामी दिनमा बच्चाहरुको आइभीक्यानुला लगाउदा बच्चा तथा आफन्तको शारीरिक तथा मानसिक पिडालाई कम गर्न सकिन्छ र जनशक्ति अनि श्रोतसाधनको समुचित प्रयोग गर्न सकिन छ जुन अनुसन्धानको महत्वपुर्ण उपलब्धी हुनेछ । यस बाहेक अध्यनको नतिजा राष्ट्रिय र अन्तरास्ट्रिय सम्मेलनहरुमा प्रस्तुत गर्न र अनुसन्धान पत्रिकाहरुमा प्रकाशित गर्न सकिन्छ । हामीलाई आशा छ तपाइले अध्यनमा भागलिएर सहयोग गर्नुहुनेछ ।

कसलाई सम्पर्कगर्ने

यदि तपाईंसँग केहि प्रश्नहरू छन्भने तपाईले मलाई कल गर्न वा ईमेल पठाउन सक्नुहुन्छ। यदि तपाईं प्रश्नहरू पछि सोध्न चाहनुहुन्छ भने, तपाईं मलाई वा मेरो टीमलाई सम्पर्क गर्न सक्नुहुनेछ।
मेनुका भण्डारी ,सम्पर्क नम्बर: ९८५२०३७८०९,**menukamenu@gmail.com**

मुनावतीराई ,सम्पर्कनम्बर: ९८४२२२७८८६ ,munarai2010@gmail.com

सुसूचितमन्जुरीनामा

भिडियोको सहायताले भुल्याउने विधिको बच्चाहरुलाई नसामा सुई लगाउदाको बेलामा दुखाई महशुस गर्ने क्षमतामा पार्ने प्रभावकारिता

म..... उमेर..... वर्षको पुरुष/महिलाले **मेनुका भण्डारी र मुनावाती राइ** ले गर्न लाग्नु भएको यस अनुसन्धान सम्बन्धि संलग्न 'जानकारी पत्र/पुस्तिका ' पढेर, सुनेर र प्रश्नोत्तर समेत गरेर यो अध्ययन-अनुसन्धान सम्बन्धमा जानकारी प्राप्त भयो।

- यो अनुसन्धान कार्यमा मेरो सहभागिता मेरो व्यक्तिगत इच्छामा भर पर्ने र मैले चाहेको खण्डमा कुनै पनि बेला यो अनुसन्धान प्रक्रियाबाट बाहिरिन पाउने भन्ने कुरा मैले बुझेको छु । यसको लागि मैले कुनै कारण दिनुनपर्ने र त्यसबाट मैले पाउने सेवा र मेरो कानुनी अधिकारमा असर नपर्ने समेत मलाई बुझाईएको छ ।
- यस अनुसन्धानको प्रतिवेदन वा सम्बन्धित प्रकाशित कृतिहरुमा मेरो कुनै व्यक्तिगत परिचय खुल्ने जानकारी प्रकाशित हुने छैन भन्ने कुरा मैले बुझेको छु ।

सहभागीकोबुढीऔंलाको

ल्याप्चेछाप

दाँया	बाँया

यीसबैकुराहरु जानी-बुझी, म यस अध्ययन-अनुसन्धानमा सहभागी हुन स्वेच्छाले राजी भई यो सुसूचित मन्जुरीनामामा सहिछाप गरेको छु ।

सहभागी/सहभागीकोअभिभावकको

सही : .....
नाम-थर : .....

N

मिति : २०७……/……/……

<u>साक्षीको</u>

सही : ……

नाम-थर : ……

मिति : २०७……/……/……

<u>अनुसन्धानकर्ताको</u>

सही : ……

नाम-थर : ……

मिति : २०७……/……/……

O

CURRICULUM – VITAE

Name: **Bhandari, Menuka**
Position: **Lecturer/Campus Chief**
Nationality: **Nepali**
Date of Birth: **14 Feb 1979 A.D. (2035/11/02)**
Birth place: **Budhabare, Jhapa, Nepal**
Marital Status: **Married**
Sex: **Female**
Permanent address: Biratnagar – 4, Morang, Province 1
Official Address: TU, IOM, Biratnagar Nursing Campus, Biratnagar
Father's name: **Bhandari, Bhim Prasad**
Mailing Address: **menukamenu@gmail.com**
Contact no: **9852037809**

Language Skill

SN	Language	Conversation		Written	
		Very Good	Satisfactory	Very Good	Satisfactory
1	Nepali	✓		✓	
2	English	✓		✓	

Academic Qualifications

SN	Academic level	Board / Institute	Passed Yr	% Division	Major subject
1.	SLC	SLC /Buddha AdarshaMaVi,Jhapa	2052(1994)	72.5% First	English, Math Science, Health
2.	PCL Nursing	TU,IOM / Biratnagar	2056(1998)	80.1% Distinction	Int.Science,FON,CHN
3.	Bachelor in	TU, IOM /	2061(2004)	83.12%	Research in

	Nursing	Maharajgung, Kathmandu		Distinction	nursing, Leadership & Mgmt, Nsg concept
4.	Master in Nursing	TU ,IOM/ Maharajgung, Kathmandu	2066/68 (2011)	80.44% Distinction	Child Health Nursing Thesis

Working Experiences, Position and Training Skills

SN	Position	Institute/Hospital	Department/Subjects	Duration
1.	Staff Nurse	Koshi Zonal Hospital	Pediatric/Orthopedic	10 Years
2.	Assistant Instructor	Koshi Health & Science Institute (CMA/ANM)	Anatomy, Physiology, Basic Medical Procedure	3Years
3.	Instructor	Birat Health and Science College (PCL)	Midwifery, Medical/surgical	2 Years
4.	Assistant Lecturer	Nobel Medical College (BSc Nursing)	Medical/Surgical	1 Year
5.	Lecturer	Hamro School of Nursing ,PU (BSc)	Pediatrics, Research, Management	4.5 Year
6.	Lecturer	TU,IOM, Nursing Campus Biratnagar	Pediatric, Education, Research, Management	2.5 Years
7.	Campus Chief	TU,IOM, Nursing Campus Biratnagar	Campus Administration and Management, QAA, Research project	Since 4 Years

Research and Publications

SN	Topic of Article and Name of Journal
1.	Bhandari M. (2017). Brain Drain: A Global Concern, Literature Review. ***BOUDDIK ABHIYAN*** *, A Multidisciplinary Journal, Issue 4, April 2017, page no 86-95, ISSN 2505-0915*
2.	Bhandari M. (2017).Anxiety and Depression among Adolescent students at Higher Secondary School. ***BIBECHANA,*** *A Multidisciplinary Journal of Science, Technology and Mathematics, Volume 14(2017), page no103-109.* Journal homepage: http://nepjol.info/index.php/BIBECHANA DOI: http://dx.doi.org/10.3126/bibechana.v14i0.16019
3.	Kadel M., Bhandari M. (2018). Factors Intend to Brain Drain among Nurses Working at Private Hospitals of Biratnagar, Nepal. Journal homepage:http://nepjol.info/index.php/BIBECHANA Article history: Received 12 August 2018; Accepted 6 November, 2018 http://dx.doi.org/10.3126/bibechana.v16i0.21642
4.	Bhandari M. (2018). Assessment of Knowledge, Practice on Nutrition and Nutritional Status of School Children in a Private School of Biratnagar Metropolitan. ***BOUDDHIK ABHIYAN****, A Multidisciplinary Research Journal, Issue 5 (2018) July, page no 101-107.*
5.	Bhandari M., Niroula A.,Chaudhary S.(2020). Assessment of Health Problems and Social Needs of Elderly in Old Age Homes of Biratnagar Metropolitan. ***DRISTIKON:*** *A Multidisciplinary Peer Reviewed Journals, November 2020, page no 169- 183, ISSN 2382-5456.*Journal homepage https://www.nepjol.info/index.php/dristikon/issue/view/2219 DOI: https://doi.org/10.3126/dristikon.v10i1.34555
6.	Menuka Bhandari,1 Upendra Yadav,2 Tulasha Dahal,2 Anjula Karki3(2021). Depression, Anxiety and Stress among Nurses Providing Care to the COVID-19 Patients: A Descriptive Cross-sectional Study. DOI: https://doi.org/10.31729/jnma.7235
7.	Satya B Shrestha, Menuka Bhandari, Munawatee Rai, Karishma Khadgi(2022). Motivations to Engage in Social Distancing and Depression, Anxiety, and Stress Among Adolescents During COVID-19 Pandemic. JIOM Nepal. 2022 Apr;44(1):55-59. www.jiomnepal.com.np

8.	**Katuwal, A.,**Bhandari, M. **(2022).** Health Care Workers' Knowledge, Attitude and Practice on COVID-19 in a Government Hospital, Biratnagar. Bouddhik Abhiyan Journal, No. 7, 2022. DOI: https://doi.org/10.3126/bdkan.v7i1.47526
9.	Bhandari, M., Dahal, T., & KC, J. (2022).Professionalism among Nurses Working at Different Government and Private Hospitals of Province 1. J Nepal Health Res Counc 2022 Apr-Jun;20(55):419-25.**DOI:** https://doi.org/10.33314/jnhrc.v20i02.4071

Research and Training Skills

SN	Name of Training	Duration	Sponsor
1	Training of Teachers	7 Days	TITI, Bhaktpur
2	Newborn Resuscitation Training	3 Days	Koshi Hospital
4	Working as a research coordinator	1 Month	John Hopkins University
5	Skilled Birth Attendance Training	2 Months	NHTC at Koshi Zonal Hospital
6	Research Methodology Training	5 Days	BPKIHS Dharan
7	OSPE, OSCE Training	2 Days	Hamro School of Nursing
8	Research Methodology Training	3 Days	Purbanchal University
9	Care of Low Birth Weight Baby by Jhpigo	2 Days	Jhpigo
10	Master of Ceremony Training	1 Day	LCB Int.
11.	Leadership Development Training	2 Days	LCB Int.
12	Epinurse Training (TOT) by	5 Days	Nepal Nursing Association
13	Strategic Planning Training, 5 Days	5 Days	Biratnagar Nursing Campus
14	Data Management & Analysis Workshop, 5 Days	5 Days	UGC/BNC
15	Training for Campus Chief	5 Days	CERID
16	Problem Based Learning (PBL)	3 days	NCHPE,TU IOM
17	Scientific Writing & Paper Publication	6 Days	UGC/BNC
18	Research Methodology Training	5 Days	NHRC
19	Accessing Literature Review	3 Days	NHRC
20	Tool Development, Validation and Analysis	5 Days	UGC/BNC

21	Systematic Review and Meta Analysis	6 Days	NHRC
22	Qualitative Research Method in Health Science	6 Days	UGC/BNC
23	Research & Writing Online	6 Days Months	TU Grassroots Vol^{n}
24	Faculty Development Training in Research	1 Month	TU Grassroots Vol^{n}
25	Faculty Development Training	6 Days	NCHPE, TUIOM

Specialty

1. Bachelor in Hospital Nursing from Tribhuvan University, Institute of Nursing, Nursing Campus Maharajgunj, 2-year course
2. Masters in Child Health Nursing from Tribhuvan University, Institute of Nursing , Nursing Campus Maharajgunj, 2-year course

Membership

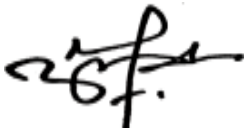
Nursing Association of Nepal, Nepal Nursing Council, Midwifery Society of Nepal, Pediatric Association of Nepal, Biratnagar Nursing Campus Alumni Association

References

Professor Takma KC, Ass. Dean, Dean of Institute of Medicine

Professor Dr. Divya Singh Shah, Dean of Institute of Medicine

Professor Sarala Joshi, Maharajgunj Nursing Campus



Gantt Chart

Work Activities	Total Duration: Six Months (in month)						
	December	January	February	March	April	May	June/July
Literature review							
Proposal preparation and Submission							
proposal finalization							
Coordination with Different Hospital							
Ethical Approval							
Data Collection							
Analysis of collected data							
Report writing & Submission							

U

SN	Particulars	Unit cost	Unit	Unit type	Total cost	Remarks
A	**Special task based remuneration**					
	Proposal preparation	10000		Person	10,000	PI
	Tools development	10,000		Person	10,000	PI
	Progress Report preparation	10000		person	10,000	PI
	Research article manuscript preparation	10000		Person	10,000	PI
B	**Field costs**					
	Travel costs (Investigators, Assistants, Enumerators)	200	5 x 60 Days	person	60,000	PI/CoI
	Daily allowance (Investigators, Assistants, Enumerators)	Role & Cost Break Down			146,000	Attached
	Puja Gartaula	Co Researcher			25000	Attached
	Nairitya Luitel	Data Entry			15000	Attached
	Punam Mandal	Data Analysis			20000	Attached
	Nepal Health research Council1	Ethical Approval			10000	Attached
	Gajendra Yadav	Enumerator			10000	Attached
	Amit Kr. Jha	Enumerator			3500	Attached
	Munawatee Rai	Co Researcher			25000	Attached
	Suresh Kaper	Report Setting			2500	Attached
	Refreshment for intervention and training session	PI, CoI, Enumerator			35000	PI, CoI & Enumerator
C	**Office costs**					
	Device Cost (Tablet)	40,000	1	Item	40,000	Attached
	Tool preparation and Printing & Photocopy Paper	40,000	Logistics	Item	40,000	Attached
D	**Consultant Services**					
	Special Professional Service	15,000	1	person	15,000	Translation
	Data Analysis	20,000	1	person	10,000	Attached
	Report Preparation Cost	5000	4	person	20,000	PI
F	**Facilities and Administrative Cost**					
	Documentation and Publication Cost	15,000			15,000	PI
G	TDS	Totalx1.5 %			6180	Tax Office Attached
Contingency Cost (≤ 5%)		20,000			20,000	
				Grant Total	**4,12,000**	

Budget Final

Government of Nepal

Nepal Health Research Council (NHRC)

Estd. 1991

Ref. No.: 3121

22 May 2023

Ms. Menuka Bhandari

Principal Investigator

TU IOM Biratnagar Nursing Campus

Biratnagar

Ref: Approval of research protocol

Dear Ms. Bhandari,

This is to certify that the following protocol and related documents have been reviewed and granted approval through the expedited review process for its implementation.

Protocol Registration No/ Submitted Date	63/2023 27 January 2023	**Sponsor Protocol No**	NA
Principal Investigator/s	Ms. Menuka Bhandari	**Sponsor Institution**	NA
Title	Effectiveness of Video-assisted Distraction Therapy on Children's Pain Perceptions during Peripheral Venous Cannulation at Pediatric Wards of Biratnagar		
Protocol Version No	NA	**Version Date**	NA
Other Documents	1. Informed consent form 2. Data collection tools 3. Support letter 4. Assent form 5. Work plan	**Risk Category**	Minimal risk
Co-Investigator/s	1. Ms. Munawarea Rai		
Study Site	Koshi Hospital		
Type of Review	√ Expedited ☐ Full Board **Review Date:** 22 May 2023	**Duration of Approval** 22 May 2023 to May 2024 **This approval will be valid for one year**	**Frequency of continuing review** NA
Total budget of research	**NRs 50,000.00**		
Ethical review processing fee	**NRs 5,000.00**		

Investigator Responsibilities

- Any amendments shall be approved from the ERB before implementing them
- Submit the support letter from the regulatory authorities in Nepal like DDA, FWD, DoHS, before implementing the

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Ref no- 32/079/080

Date: 16th June, 2023

To,

The Campus Chief
Biratnagar Nursing Campus
Biratnagar, Morang.

Subject: Data Collection Completion

Respected Madam,

We are pleased to inform you that Ms. Menuka Bhandari, Ms. Munawati Rai and Ms. Puja Gartaula have successfully completed data collection from this hospital from 27th February, 2023 to 28th April, 2023 A.D (15th Falgun, 2079 to 15th Baisakh, 2080 B.S) on a research entitled **"Effectiveness of Video Assisted Distraction Therapy on Children's Pain Perception during Peripheral Venous Cannulation at Pediatric Ward of the Hospitals in Biratnagar, Nepal."**

We also wish you good luck with your research study.

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Hospital Director
(Dr. Sureyka Adhikari)

X