

EFFECTIVENESS OF CARTOON MOVIES AS A DISTRACTOR IN REDUCING PAIN AMONG CHILDREN DURING VENIPUNCTURE IN TIRUNELVELI MEDICAL COLLEGE AND HOSPITAL

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ABSTRACT

Pain among children during venipuncture has common problem in India. This study was undertaken to assess the effectiveness of cartoon movies as a distractor in reducing pain among children during venipuncture. **Aim of the study:** To determine the effectiveness of cartoon movies as distracter on pain among children undergoing venipuncture at the study settings. **Methods:** This was a quasi-experimental study conducted among Thirty children (fifteen in experimental group and fifteen in control group) undergoing venipuncture in selected hospital of Tirunelveli medical college and hospital. FLACC observational pain scale was used to for pain assessment. Experimental group were given passive distraction in the form of cartoon movie and control group were not cartoon movies during venipuncture. Intervention was given for 5minut before initiation of procedure (venipuncture) during procedure and till 5 minutes of completion of procedure. **Result:** Mean pain score in experimental group was lower than (3.2) that of the control group (7.8). **Conclusion:** Cartoon movies as a distractor is effective on reducing pain among children undergoing venipuncture.

Key words: Cartoon movies, medical college, venepuncture, Tirunelveli.

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INTRODUCTION

Pain is a subjective experience with cognitive behavioral and emotional dimensions which is affected by environmental, emotional socio-cultural and evolutionary factors of an individual. In childhood, Venipuncture is considered as unpleasant medical invasive procedure, which is understood to be puncturing the vein with an injection needle. Repeated Venipuncture is an especially stressful and painful experience for children. Venipuncture involving rough treatment poor preparation or unbearable pain can have extensive effects that include anxiety, decreased pain threshold and reduced effects of analgesia for further procedures and avoidance of medical care. In case of failure to use appropriate strategies to alleviate pain, Venipuncture has been reported as one of the largest sources of pain among children.

Distraction helps the child to focus attention on something other than the pain distraction technique that are more likely to be effective because, they provide curiosity in children to use their auditory visual tactile and kinesthetic sense when maneuvering them and thus distraction effectively minimizes the distress associated with painful event. Video games animated cartoon and music help the child to keep away from thinking of their pain distraction techniques seek to focus a child attention an interesting or challenging tasks to avert the attention from painful or distress medical procedures.

NEED FOR THE STUDY

Pain is an unpleasant sensation of localized part of the body. Early pain experience may play an important role in shaping an individual pain responses inadequate relief of pain during the childhood and painful medical procedure may have long term negative effects on future pain tolerance and pain response.

Distraction is proven effective psychological intervention. Distraction can be used as one of strategies to gain co-operation of the child cartoon movie distraction is the ability to focus attention on something other than pain & does not mean that the pain is gone. Children bear significant pain and discomfort during venipuncture in hospitals.

Borude shunbhangi desphande syotsna singh Shiveharan (2015) conducted the study to assess effectiveness of cartoon movies as distractor on pain among children undergoing venipuncture at selected hospital of Pune city. The quasi experimental posttest only control group design was used for the study. The sample was 30 children, age group of 4-7 years, 15 were control group & 15 were in experimental group. Glacc observational pain scale was used for pain assessment. Study findings clearly stated that the mean pain score in experimental group was lower (4-6) than of the control group (7.7) it concludes cartoon movies as a distractor is effective on reducing pain among children undergoing venipuncture.

This motivated the researcher to conduct a study to evaluate the effectiveness of animated cartoon video as distraction strategy to reduce pain in children. Hence the researchers intended to use cartoon movies as an Audiovisual aid as a distractor among children during painful venipuncture.

STATEMENT OF THE PROBLEM:

A study to assess the effectiveness of cartoon movies as a distractor in reducing pain among children during venipuncture in Tirunelveli Medical College and Hospital.

OBJECTIVES:

- To assess the effectiveness of cartoon movies as a distractor in reducing pain during venipuncture among children 4-7 years of age in experimental groups.
- To find out the association between pain level of children with their selected demographic variables such as age, sex, socioeconomic status, previous hospitalization and previous exposure to painful procedure.

OPERATIONAL DEFINITIONS:

Assess:

It refers to the systematic way of collecting validating communicating the data regarding the level of pain among the children undergoing venipuncture by using FLACC SCALE.

Effectiveness:

It refers to the ability of distraction by cartoon movie in reducing the pain as evidenced by scores obtained on the FLACC SCALE.

Distractor:

It is the audiovisual aid which displays the cartoon movies on a monitor for diverting the child's attention from painful venipuncture.

Pain:

Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage

Children:

The children are a human being between the stages of birth and puberty. Refers to age between ages 4-7 years admitted in the selected hospital at Tirunelveli Medical College and Hospital.

HYPOTHESIS:

- **H₁** - There is a significant reduction in pain level among children during venipuncture procedures after distraction of cartoon movie.
- **H₂** - There is significant association between the level of pain with selected demographic variables such as age, sex, socio economic status, previous hospitalization and previous exposure to painful procedure.

RESEARCH METHODOLOGY:**RESEARCH DESIGN:**

The research design adopted for this study is **True experimental posttest only design**

GROUP	PRE TEST	INTERVENTION	POST TEST
E	-	X	O1
C	-	-	O2

E - Experimental group

C - Control group

X - Cartoon movies distraction as an intervention in decreased pain among experimental group

O1 - Observation after intervention in control group

O2 - Observation without intervention in the control group

'-' - No intervention

The study was conducted in Tirunelveli Government Medical College and Hospital. The population selected for this study was Children between the ages 4-7 years and undergoing venipuncture procedure in the pediatric ward. Sample size is 30 children. 15 children was experimental group. 15 children was control group. In the study; Simple random sampling technique was adopted for the experimental and control group.

VARIABLES**Independent Variable**

Distractor [Cartoon movies]

Dependent variable

Level of pain

Demographic variable

Age, sex, economic status, previous hospitalization and previous exposure to painful procedure.

DATA COLLECTION METHOD AND TOOLS:

Based on the objectives of the study, Demographic profile, Standardized tools like FLACC pain scale was used to assess the effectiveness of cartoon movies as a distractor in reducing pain during venipuncture

VALIDITY:

The Standardized Research tool like FLACC pain scale was given to experts in the field of nursing for content validity all comments and suggestion were considered and corrections were made and found to be valid.

RELIABILITY:

The reliability of the tool was determined by 't' test and retest method to obtain the reliability. The tool was found to be reliable.

DATE COLLECTION:

Written consent was obtained from the principal Mrs. Lizy Merlin Lisha & Research committee formal permission was obtained from the Tirunelveli Government Medical College and Hospital. Data collection was done for one week. 30 samples who satisfied the inclusive criteria was selected by using the sample random sampling technique. Sample of 30 children (15 in experimental & 15 in Control group) undergoing Venipuncture in selected Hospital of Tirunelveli Government Medical College and Hospital, experimental group was selected for given passive distraction in the form of cartoon movies & control group was not relieve the intervention during venipuncture. Intervention done 5 minutes before initiation of procedure (venipuncture) during procedure and till 5 minute of completion of procedure. The level of pain was assess both in experimental and control group by using FLACC observation pain scale during procedure.

DATA ANALYSIS:**DESCRIPTIVE STATISTICS:**

1. Frequency and percentage distribution was used to describe the demographic variables among child during venipuncture in the experimental and control group.
2. Frequency and percentage distribution was used the level of pain among child during venipuncture in experimental and control group.
3. Mean and standard deviation was used to assess the level of pain among child during venipuncture in the experimental and control group.

INFERENTIAL STATISTICS:

1. Paired 't' test was used to compare the level of pain among child during venipuncture in experimental and control group.
2. Chi – Square test was used to associate the posttest level of pain with demographic variables in experimental and control group.

RESULTS AND DISCUSSION:

Data analysis was computed by using descriptive (mean, frequency, percentage distribution and standard deviation) and inferential ("t" test and chi-square test) statistics.

Table.1. Frequency and percentage distribution of sample based on level of pain among children during venipuncture in experimental and control group.

N=30

S.No	Level of pain	Experimental group		Control group	
		f	%	f	%
1	No pain	-	-	-	-
2	Mild pain	9	60	-	-
3	Moderate pain	6	40	3	20
4	Severe pain	-	-	12	80

Table.1 reveals the frequency and percentage distribution of sample based on the level of pain among children in experimental and control group. It is evident from the above table that in experimental group 60% of child had mild pain, 40% of them had moderate pain and none of them severe pain. Where as in the control group none of them no pain and mild pain 20% of them had moderate pain and 80% of them had severe pain.

Table.2. Comparison of level of pain, mean, standard deviation 't' value of the child undergoing venipuncture in experimental and control group.

N=30

Variable	group	mean	Standard deviation	Un paired 't' value		'p' value
				Calculated Value	Table value	
Level of pain	Experimental group	3.2	1.54	2.05	1.24	<0.05
	Control Group	7.8	1.27			

Significance $p < 0.05$

Table.2. reveals the mean and standard deviation of posttest level of pain between the experimental and control group. The mean score was 3.2 with standard deviation was 1.54 in experimental group and the mean score was 7.8 with the standard deviation 1.27, in control group. It also reveals unpaired "t" test was used to compare the level of venipuncture pain between the experimental and control group with regard to the level of pain between experimental and control group. It was found "t" value indicating there was a highly significant reduction in level of pain between experimental and control group at $p < 0.05$ level. Hence the study hypothesis was accepted.

CONCLUSION:

The study assessed the effectiveness of cartoon movies as a distractor in reducing pain among children during venipuncture. The result of the study concluded that cartoon movie as distractor was effective reducing pain among children during venipuncture. There for the investigator felt that Cartoon movie distractor was more effective in reducing pain during venipuncture. So that it can be give as FLACC scale measures in reducing pain during venipuncture.

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