“A study to assess the effectiveness of rhymes cartoon based video diversional therapy on pain during injection procedure among preschool children’s”

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Abstract

Children, especially younger ones, typically remember their past experiences during medical visits. This fear may be heightened when the child finds themselves in the same environment of a treatment room surrounded by unfamiliar people and facing a possibly painful experience. Loss of autonomy and control may cause the young child a great deal of anxiety.

Cartoon video based diversional therapy may help to reduce children pain and behavioral responses. This kind of diversion distracts the child during painful injection procedures, which modifies the pain and behavioral responses in children.

- cartoon rhymes video based, preschooler children, pain injection procedure

INTRODUCTION

Preschoolers are constantly on the move, exploring their world with exuberance, curiosity, and a seemingly endless source of energy. A child’s capacity for learning in this stage is enormous. Preschool-age children learn and develop from every experience, relationship, and adventure they encounter. Having the space and opportunity to explore objects and play environments helps preschool children develop their imagination and master the motor, cognitive, language, and social skills that are essential for future development.

REVIEW OF LITERATURE

SECTION A: Studies related to pain and behavioral perception for children during injection procedure.

SECTION B: Studies related to diversion therapy for children’s pain and distress during injection procedure.
OBJECTIVES OF THE STUDY

1. to assess the pre test level of rhymes cartoon based video diversional therapy on pain during injection procedure among preschool childrens in medical college hospital of ambikapur (c.g.)”

2. to assess the post test level of rhymes cartoon based video diversional therapy on pain during injection procedure among preschool childrens in medical college hospital of ambikapur (c.g)”

3. to compare the pre test and post test level of rhymes cartoon based video diversional therapy on pain during injection procedure among preschoolchildrens in medical college hospital of ambikapur (c.g)”

4. to compare the effectiveness of rhymes cartoon based video diversional therapy on pain during injection procedure among preschool childrens in medical college hospital of ambikapur (c.g)”.

5. to find out association between the pre test level of rhymes cartoon based video diversional therapy on pain during injection procedure among preschool childrens with their selected socio demographic variables.

METHODOLOGY

An extensive review of literature was undertaken. The conceptual frame work adopted this studies based on king goal attainment theory. A quasi experimental one group experimental and one group control group design was adopted for this study A quantitative research approach is used. Pilot study was found reliable. For main study purposive sampling technique was adopted to select 100 samples of school teachers, 30 sample receiving structure teaching Programme regarding prevention of behavioral problems. The tool used for data collection consisted of self structured multiple choice questionnaire. Data collection was analyzed by using descriptive and inferential.

The study was based on evaluative approach. The design used was quasi experimental and only one group pre test and post test research design .The conceptual framework of the study was based on the Katherine Bernard Parent Child Interaction Model., purposive sampling technique was used to select 100 samples for the study, 50 sample for experimental group and 50 for control group . The demographics variables is collected in experimental and control group. For the experimental group the children were not given options to select known games or desired animations. The rhymes video were played with the use of laptop 5 minutes before the injection procedure and during the procedure cartoon based video diversional therapy was given for 5 minutes simultaneously the researcher assessed the pain using FLACC Scale was used as a tool to assess the level of
pain perception among children undergoing the injection procedure, after the injection procedure also the cartoon based video diversion was continues. The data gathered were analysed employing descriptive and inferential statistics. Significance of association was calculated by chi-square test and difference of mean knowledge score was calculated by paired t test and unpaired t test.

**DEVELOPMENT & DESCRIPTION OF THE TOOL**

Data collection tools are the procedures or instruments used by the researcher to observe or measure the key variables in the research problem (Burns, N, & Grove, K. 2002).

After wide reading, the researcher developed the tool as per the following:

**SECTION-A**: deal with socio demographic variables.

**SECTION B**: rhymes based cartoon videos.

**SECTION–C**: FLACC scale

**CRITERIA MEASURING SCORE**

- Maximum score – 10
- Minimum score – 0

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**FLACC scale**

<table>
<thead>
<tr>
<th>Categories</th>
<th>Scoring</th>
<th>0</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face</td>
<td>No particular expression or smile; disinterested</td>
<td>Occasional grimace or frown, withdrawn</td>
<td>Frequent to constant frown, clenched jaw, quivering chin</td>
<td></td>
</tr>
<tr>
<td>Legs</td>
<td>No position or relaxed</td>
<td>Uneasy, restless, tense</td>
<td>Kicking, or legs drawn up</td>
<td></td>
</tr>
<tr>
<td>Activity</td>
<td>Lying quietly, normal position, moves easily</td>
<td>Squirming, shifting back and forth, tense</td>
<td>Arched, rigid, or jerking</td>
<td></td>
</tr>
<tr>
<td>Cry</td>
<td>No crying (awake or asleep)</td>
<td>Moans or whimpers, occasional complaint</td>
<td>Crying steadily, screams or sobs, frequent complaints</td>
<td></td>
</tr>
<tr>
<td>Consolability</td>
<td>Content, relaxed</td>
<td>Reassured by occasional touching, hugging, or talking to. Distractable</td>
<td>Difficult to console or comfort</td>
<td></td>
</tr>
</tbody>
</table>

Each of the five categories (F Face; L Legs; A Activity; C Cry; C Consolability) is scored from 0-2, which results in a total score between 0 and 10.

<table>
<thead>
<tr>
<th>SN.</th>
<th>GRADING</th>
<th>MARKS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>MILD PAIN</td>
<td>0-2</td>
<td>0%-20%</td>
</tr>
<tr>
<td>2.</td>
<td>MODERATE PAIN</td>
<td>3-5</td>
<td>30%-50%</td>
</tr>
<tr>
<td>3.</td>
<td>SEVERE PAIN</td>
<td>6-7</td>
<td>60%-70%</td>
</tr>
<tr>
<td>4.</td>
<td>NO PAIN</td>
<td>8-10</td>
<td>80%-100%</td>
</tr>
</tbody>
</table>
RELIABILITY

Reliability of Wong bakers face pain scale tested by inter rater method by using Karl Pearson co-efficient formula and it was found to be reliable (r=0.9).

PILOT STUDY

The pilot study was conducted in CHC hospital at lakhanpur for a period of one week during the month of June. Oral permission has been obtained from the medical director, CHC hospital, and from the parents prior to the study. Children fulfilling the inclusion criteria were chosen by using purposive sampling. The sample size for the pilot study was 10.5 for experimental group and 5 for control group. During the injection procedure the cartoon based video was given to the children for 5 minutes before, during the procedure for 5 minutes and after the procedure of injection for 5 minutes for a total duration of 15 minutes. During the procedure pain and behavioral responses was assessed using the FLACC scale was used in the experimental group, and in control group with only standard hospital routine pain was assessed by using FLACC SCALE.

DATA COLLECTION PROCEDURE

- The investigator self-introduced to the child family, and also explains the purpose of conducting the study.
- The demographic variable will be collect with the help of FLACC scale.
- Pre-test assessment of effectiveness of rhymes cartoon based video diversion during injection procedures among preschool children in experimental group and control group, will be done the using of FLACC scale.
- Before introducing the procedure the investigator is explain about effectiveness of rhymes cartoon based video diversion during injection procedures among preschool children in experimental group.
- Routine play therapy is used in control group.
- The duration of data collection is 6 days.
- A good rapport will be created with the child family, and then get the consent.
- The demographic variables will be collected with the help of interview questionnaire.
- On the first, second and third day the post test will be conducted at the end of the day using the effectiveness of rhymes cartoon based video diversion during injection procedures among preschool children. For each child it takes about 15 minutes.
- The duration of data collection was 30 days.

PLAN FOR DATA ANALYSIS AND INTERPRETATION

Data will be analysed by using descriptive and inferential statistics.

- Organize data in master data sheet.
- Demographic variables are to be analysed in terms of frequencies and percentages.
- FLACC scale is used to be presented in form of mean, median and standard deviation.
- Chi- square test is used to determine the association between demographic variables.
- Unpaired t test is used to determine the comparison of experimental group and control group.
The significant difference between the levels of pre-test and post-test both in experimental group and the control group was determined by using paired “t” test.

RESULT

mean of pre-test is 10.5 and post-test is 15.08 and SD of pre-test is 0.54 and post-test is 1.6 in experimental group. The mean of control group in pre-test is 5.18 and post-test is 6.84 and SD in pre-test is 1.34 and post-test is 1.22. The un-paired T-test value in experimental group is 14.3 and in control group is 8.3. in which significant in experimental group P<0.05 significant and in control group P<0.05 significant

DISSCUSSION

The study findings reveal that It was concluded that cartoon distraction video is an effective distraction strategy to reduce pain and distress among children during injection procedure.

RECOMMENDATIONS

1. A similar study can be replicated on large sample to make generalizability.
2. A similar study can be done in a hospital set-up.
3. A similar study can be conducted among preschool of children.
4. A experimental study can be conducted in rims hospital among children.
5. A similar study can be conducted with different study design.
6. A similar study can be replicated to assess the cost effectiveness.
7. The study can be done in different age group of children.
BIBLIOGRAPHY

BOOK REFERENCES-