



## EFFECTIVENESS OF ANIMATION SONG IN REDUCING THE BEHAVIORAL RESPONSE OF PAIN AMONG TODDLER RECEIVING DPT BOOSTER 1<sup>st</sup> DOSE VACCINATION

Ms. Monika Patel

M.Sc. Nursing in Child Health Nursing, Anushree College of Nursing, Jabalpur, MP

**ABSTRACT** Children are considered as the pride of a nation. The study was carried out to assess the effectiveness of animation song in reducing the behavioral response of pain among toddler receiving DPT booster 1<sup>st</sup> dose vaccination in selected hospitals. In view of the objectives of the present study quantitative, quasi-experimental research approach (non-equivalent post-test only control group design) is considered. The study was conducted in immunization OPD in NSCB Jabalpur. Sample size is 60. 30 experiment group & 30 control group. Purposive sampling technique was used. FLACC scale was used. The mean difference of behavioral responses of pain in experiment and control group is 3.6 with standard deviation 1.3, standard deviation error 0.31 and calculated t value is 11.51 at degree of freedom 58, which is higher than the tabulated t value 2.00, at 0.05 level of significance. Hence above finding concluded that animation song is effective in reducing the behavioral responses of pain.

**KEYWORDS :** Effectiveness, Animation song, Behavioral response, Pain

### INTRODUCTION

Today's society is complex and ever changing; children grow and learn not only to cope with current demands but also to prepare with many unexpected events they will face tomorrow. Pain is the fifth vital signs. Pain scales are based on self-report, observational (behavioral), or physiological data. Behaviors that are commonly used to identify presence of pain are facial expression, vocalization, posture, movement. Cry pattern, facial expression and body movement are behavior indication of children. Distraction is a non-pharmacological intervention. Conscious attention is necessary to experience pain. Distraction helps the child to focus attention on something other than the pain. A variety of distracters have been used in the context of children's pain management. Depending on the age group of the children subjects undergoing intervention, the effectiveness of the distraction technique may vary. For example, interaction, distraction, intervention may be appropriate for older children and passive distractions such as cartoon movies may be appropriate for children of all ages.

Simakaheni et al (2006) conducted a study on "The Effect of Video Game Play Techniques on Pain of Venipuncture in Children". The aim of this study is to determine the effect of video game play on pain of venipuncture in 3-6-year-old children. The randomized controlled trial study was conducted on 80 hospitalized children with pain of venipuncture procedures. Playing a video computer game for children during the venipuncture procedures was the intervention for the interventional group. Also, the intensity of pain was measured by behavioral pain scale for children (FLACC scale) during the procedure. This scale was completed for patients without any intervention in the control group during venipuncture procedures. Pain intensity mean in the interventional group ( $2.65 \pm 1.577$ ) had significant changes in comparison with the control group ( $7.95 \pm 1.084$ ) ( $P < 0.05$ ). 70% of children in the control group experienced severe pain due to venipuncture procedures, but most children in the intervention group (77.5%) had a little pain. According to the results, it seems that video game play intervention has a significant positive effect on the pain of venipuncture procedures in children.

### OBJECTIVES

1. Assess the behavioral responses of pain among toddlers receiving DPT booster 1<sup>st</sup> dose vaccination in selected hospital in experimental group.
2. Assess the behavioral responses of pain among toddlers receiving DPT booster 1<sup>st</sup> dose vaccination in selected hospital in control group.
3. Assess the effectiveness of animation song on behavioral responses on pain among toddlers receiving DPT booster 1<sup>st</sup> dose vaccination in experimental group.
4. Find the association between behavioral responses on pain among toddlers and their selected demographic variables in experimental group.

### HYPOTHESIS

1. H<sub>1</sub>- there will be significant difference between behavioral responses on pain among toddlers in experiment and control

group.

2. H<sub>2</sub>- there will be significant association between behavioral responses on pain among toddler receiving DPT booster 1<sup>st</sup> dose vaccination and their selected demographic variables in experimental group.

### METHODOLOGY

A quantitative, quasi-experimental non-equivalent post-test only control group design was used in this study. Target population consists of all children aged 1-3 years. The sample size is 60. 30 sample in experiment group & 30 samples in control group. The investigator adopted the purposive sampling technique. Data was collected with the help of FLACC scale and demographic variables.

The tools consist of 2 sections.

- **Section 1: Demographic characteristics** – demographic data of child would include age, sex, family member accompanying.
- **Section 2: Standardized behavior pain assessment scale** FLACC scale which includes facial expression, leg movement 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 0-10. Interpretation will be done as follows-

SCORE	RESPONSE
0	Relaxed and comfortable
1-3	Mild discomfort
4-6	Moderate pain
7-10	Severe discomfort or pain or both

### RESULT

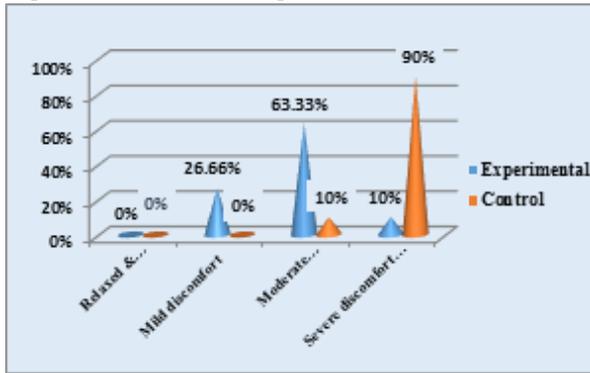
**Table 1- Demographic Variables of Samples in Terms of Frequency and Percentage**

DEMOGRAPHIC VARIABLE	f	%
<b>Age</b>		
• 1-2 Years	27	90%
• 2-3 Years	3	10%
<b>Sex</b>		
• Male	13	43.33%
• Female	17	56.66%
<b>Family Member Accompanying</b>		
• Mother	13	43.33%
• Father	7	23.33%
• Grand parents	9	30%
• Others	1	3.33%

In experiment group regarding behavioral responses of pain is maximum 19(63.33%) have moderate pain, 8(26.66%) have mild pain, 3(10%) have severe discomfort or pain or both and none are relaxed and comfortable.

Where as in control group 27 (90%) have severe discomfort or pain or both, 3 (10%) have moderate pain, none has mild discomfort, none are relaxed and comfortable state.

**Figure 1 Show the Behavioral Responses of Pain among Toddler in Experimental & Control Group**



In experimental group behavioral response of pain mean score is 4.55 and in control group is 8.15, mean difference of behavioral responses of pain 3.6 with standard deviation 1.3, standard deviation error 0.31 and calculated 't' value is 11.51 at df 58 which is higher than the tabulated 't' value 2.00 at 0.05 level of significance.

Hence research hypothesis  $H_1$  "there will be significant difference between behavioral responses of pain among toddler in experiment group & control group" is accepted.

The finding shows that the association between behavioral responses of pain in experimental group with selected demographic variables is statistically tested by applying chi-square test. The variables age is found significant at 0.05 level and sex and family member accompanying variables are not found significant.

Hence the hypothesis  $H_2$  "there will be significant association between behavioral responses of pain among toddler receiving DPT booster 1<sup>st</sup> dose vaccination and their selected demographic variables" is accepted in age variables and not accepted in sex and family member accompanying variables.

## DISCUSSION

Present study findings indicate that Behavioral responses of pain in experiment group was that maximum 19 (63.33%) have moderate pain, 8(26.66%) have mild pain, 3 (10%) have severe discomfort or pain or both and none was relaxed & comfortable. The mean score in experiment group is 4.55.

In control group 27(90%) have severe discomfort or pain or both, 3 (10%) moderate pain, none has mild discomfort, nor none are relaxed and comfortable state. The mean score in control group is 8.15.

The mean difference of behavioral responses of pain in experiment and control group is 3.6 with standard deviation 1.3, standard deviation error 0.31 and calculated t value is 11.51 at degree of freedom 58, which is higher than the tabulated t value 2.00, at 0.05 level of significance.

Hence above finding concluded that animation song is effective in reducing the behavioral responses of pain among toddlers.

The finding is supported by the study conducted by, **Binty Daniel, et al (2016)** on Effectiveness of Cartoon Movie as a Distraction Strategy on Behavioral Response to Pain among Toddlers (1-3 years) receiving Immunization in Selected Immunization Clinics, Mangalore. The result shows that, control group had significant higher behavioral pain response score than of experimental group who were distracted with cartoon movie. Highest percentage (56.7%) of sample in the experimental group showed moderate pain whereas in the control group majority (66.7%) showed severe pain. Unpaired t test showed the difference was significant at 0.05 level of significance ((t (58) =7.557, p<0.05).

Hence it a verification manipulation with distraction can help that cartoon movie is an effective distraction method to reducing the behavioral response to pain among children.

## CONCLUSION

The study concluded that the immunization are the universal experiences for children. Animation song is found to be effective for

reduction of behavioral responses of pain of toddler receiving immunization. Therefore, it can be used as a routine with immunization so that pain can be managed in an effective way. It is important for the health professionals, who administer immunization, to take the challenge for relieving the pain by distracting the child.

## REFERENCES

1. Abdel Razek. Effects of breast feeding on pain relief during Infant Immunization Injection, International Journal of Nursing Practice, Volume 15, Issue 2, April 2015
2. Baljit Kaur, Jyoti Sarin, Yogesh Kumar. Effectiveness of cartoon distraction on pain perception and distress in children during intravenous injection. IOSR Journal of Nursing and Health Science, Volume 3, Issue 3 Ver. II (May-Jun. 2014), PP08-15
3. Binty Daniel, Theresa Leoida Mendonca. Effectiveness of Cartoon Movie as a Distraction Strategy on Behavioral Response to Pain among Toddlers (1-3 years) receiving Immunization in Selected Immunization Clinics, Mangalore. International Journal of Nursing, Volume no. 5, 2017.
4. Colwell.C. Music as distraction and relaxation to reduce chronic pain. Journal of Music Therapy association; 2002. 15(16); 24-31.
5. Ds Gedam, M Verma, U Patel, S Gedam. Effect of Distraction Technique During Immunization to Reduce Behavioral Response Score (FLACC) to Pain in Toddlers. Journal of Nepal Pediatric Society Volume 33, No. 1, 2013.