ORIGINAL RESEARCH PAPER

Volume - 13 | Issue - 05 | May - 2024 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

A PRE EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF PLAY MATERIALS AS A DIVERSIONAL THERAPY AMONG THE TODDLERS DURING INTRAMUSCULAR INJECTION IN A SELECTED HOSPITAL, AGARTALA, WEST TRIPURA

Nursing Science

Mrs. Munmun Mahajan

Principal, Sarvodaya Institute Of Nursing (M.Sc Nursing in Pediatric Nursing)

ABSTRACT

Introduction: Injections of any kind can hurt; children know that pain is predictable. Preparation for an intramuscular injection should be done just before giving the injection, so that children do not have time to build up their anxieties about the procedure. Almost any form of play can be used for diversion and recreation, but the activity should be selected on the basis of the child's age, interests and limitations. **Methodology:** This study was based on Johnson's Behavioral System Model. The study adopted a pre-experimental research approach. **Sampling technique:-**Non-probability purposive sampling technique **Sample:-** 60 toddlers, 30 each in experimental (Group I) and control group (Group II). **Result:-** The mean (19.63), mean % (93.49), median(20), mode(20) of experimental group was significantly higher than the mean(8.43), mean %(40.14) , median(8), mode(8) of control group. But SD of experimental group (0.85) was little despaired from the control group(0.86) & mean difference was 11.2. Unpaired 't' test computed between the control group and experimental group, & the 't' value (50.773) statistically found to be significant ('t'58 -2.02 , p>0.05). Hence, the null hypothesis was rejected and research hypothesis was accepted. So, it established that play materials were effective divertional therapy in terms of gaining scores in behaviour. Which indicate play therapy was effective. **Conclusion:** From the findings of the present study it can be concluded that the play materials are effective divertional therapy during intramuscular injection.

KEYWORDS

Intramuscular Injection, Divertional Therapy, Play, Toddler

INTRODUCTION

"Children are the future of nation." The health of children is of vital importance of all societies because children are basic sources of the future mankind. When children learn to walk, they are called toddlers. Pain is often associated with fears anxiety and stress. A number of non pharmacologic techniques, such as destruction, diversion, relaxation provide coping strategies that may help reduce pain perception, make pain more tolerable, decrease anxiety, and enhance the effectiveness of analgesics.[1] Injections of any kind can hurt; children know that pain is predictable. Preparation for an intramuscular injection should be done just before giving the injection, so that children do not have time to build up their anxieties about the procedure.[3]

OBJECTIVES OF THE STUDY

1. To assess the behaviour of toddler with play materials during Intramuscular injection.
2. To assess the behaviour of toddler without play materials during Intramuscular injection.
3. To find out the effectiveness of play materials among the toddler during intramuscular injection between control and experimental group.
4. To find out the significant differences on behaviour scores of toddler during intramuscular injection between control and experimental group.

METHODOLOGY

The study adopted a pre-experimental research approach, with the research design Non-equivalent control group post test only design. The Sample size is 60 toddlers, 30 each in experimental (Group I) and control group (Group II).

Inclusion criteria:-

i) Children in age group of 1-3 years.
ii) Parents who are given consent to participate in this study.
iii) Children receiving Diptheria Purtusis Tetanus immunization.

Exclusion criteria:-

Toddler who are-
i) Visually and auditory impaired.

RESULT

Table-1, Frequency and percentage distribution of toddler according to their demographic characteristics in control group. n=30

Demographic characteristics		Frequency(f)	Percentage (%)
1. Age	1-12 months	0	0
	13-24 months	30	100
	25-36 months	0	0
2. Gender	Male	22	73.3
	Female	8	26.7
3. Economic status of the parents	<10,000	2	6.7
	10,000-20,000	27	90
	20,001-30,000	1	3.3
	>30,000	0	0
4. Residence	Village	19	63.3
	Taluk	0	0
	Town	11	36.7
5. Type of the family	Joint Family	17	56.7
	Nuclear family	13	43.3
	Extended family	0	0

Table-2, Frequency and percentage distribution of toddler in experimental group. n=30

Demographic characteristics		Frequency	Percent
1. Age	1-12 months	0	0.0
	13-24 months	29	96.7
	25-36 months	1	3.3
2. Gender	Male	22	73.3
	Female	8	26.7
3. Economic status of the parents	<10,000	3	10.0
	10,000-20,000	15	50.0
	20,001-30,000	12	40.0
	>30,000	0	0.0
4. Residence	Village	17	56.7
	Taluk	0	0.0
	Town	13	43.3
5. Type of the family	Joint Family	23	76.7
	Nuclear family	7	23.3
	Extended family	0	0.0

Table-3, Mean, Mean %, Mean Difference, Median, Mode, SD, SE, and 't' value of behaviour scores of toddler of experimental and control group during intramuscular injection. n=60

Group	Mean	Mean %	Mean difference	Median	Mode	SD	SE	't' value
Control group	8.43	40.14	11.2	8	8	0.86	0.221	50.773
Experimental group	19.63	93.49		20	20	0.85		

('t' 58 -2.02 **, p>0.05)**

The data presented in the **table-3** indicated that the mean(19.63), mean % (93.49), median(20), mode(20) of experimental group were

significantly higher than the mean(8.43), mean %(40.14) , median(8), mode(8) of control group & the mean difference was 11.2. SD (Standard deviation) of experimental group (0.85) was little despaired from the controlgroup(0.86). SE (Standard error) was **0.221** with 't' value of **50.773** for df 58 at 0.05 level of significance (**'t'58 -**2.02 **, p>0.05)** which indicate that calculated value was more than tabulated value, Hence the research hypothesis (H1) was accepted and null hypothesis (H0) was rejected. So, it concluded that play materials were effective divertional therapy.

Table-4, Frequency and percentage distribution of behavior scores of toddler between control and experimental group. n=60

CONTROL GROUP	EXPERIMENTAL GROUP						
Category	Scores	Frequency (f)	Percentage (%)	Category	Scores	Frequency (f)	Percentage (%)
Highly effective	15-21	0	0%	Highly effective	15-21	30	100%
Effective	8-14	26	86.7%	Effective	8-14	0	0%
Poor effective	1-7	4	13.3%	Poor effective	1-7	0	0%

The presented that **Table-4** shows that in control group 86.7% (26) having effective score and 13.3% (4) having poor effective score the data also revealed that experimental group 100%(30) having highly effective score.

Table-5, Area wise mean, mean percentage (%), median, mode, & SD control group. n=30

Area	Sum Score	Mean	Mean (%)	Median	Mode	Standard Deviation
Face	41	1.37	45.56	1	1	0.49
Cry	39	1.30	43.33	1	1	0.47
Child verbal	37	1.23	41.11	1	1	0.43
Torso	34	1.13	37.78	1	1	0.35
Limbs	35	1.17	38.89	1	1	0.38
Activity	35	1.17	38.89	1	1	0.38
Interaction with the environment	32	1.07	35.56	1	1	0.25

Table-6, Area wise mean, mean percentage (%) median, mode, & SD experimental group. n=30

Area	Sum Score	Mean	Mean (%)	Median	Mode	Standard Deviation
Face	73	2.43	81.11	2	2	0.50
Cry	81	2.70	90.00	3	3	0.47
Child verbal	86	2.87	95.56	3	3	0.35
Torso	88	2.93	97.78	3	3	0.25
Limbs	87	2.90	96.67	3	3	0.31
Activity	88	2.93	97.78	3	3	0.25
Interaction with the environment	86	2.87	95.56	3	3	0.35

Summary

On the basis of findings of the present study, it can be concluded that the intervention of play materials among the toddler is effective intervention during intramuscular injection.

After conducting the final study it is revealed that the tool is applicable and the study is feasible. All the respondents were very much cooperative to answer all questions. Administrative cooperation met the final study smooth and successful.

DISCUSSION

The meaning of research in a simple language is to explore or discover new things and concepts.

The findings of the study discussed in this chapter were based on the objectives and hypothesis of the study.The first objective was to assess the behaviour of toddler with play materials during Intramuscular injection.

The statistical findings of the present study revealed that the mean behaviour score was 19.63, median behaviour score was 20, mean percentage of behaviour score was 93.49%, mode behaviour score was 20 & SD was 0.85, in the experimental group, where play materials were administered as an intervention.

The second objective was to assess the behaviour of toddler without play materials during Intramuscular injection.

The statistical findings of the present study revealed that the mean behaviour score was 8.43, median behaviour score was 8, mean percentage was 40.14%, mode was 8 & SD was 0.86 in the control group, where play materials are not administered as an intervention.

The third objective was to find out the effectiveness of play materials among the toddler during intramuscular injection between control and experimental group.

H01-The behaviour scores among the toddler of experimental group are not significantly higher than control group.

The mean (19.63) of experimental group was significantly higher than the mean(8.43) control group. The unpaired 't' test was computed and the obtained 't' value (50.733) was found statistically significant ('t'58=2.02) at 0.05 level of significance.

Percentage distribution on modified observational checklist to measure the behavior of toddler during intramuscular injection revealed that in control group 86.7% having effective score but in experimental group 100% having highly effective score.

So, the null hypothesis was rejected and research hypothesis was accepted, which indicate that the behaviour scores among the toddler of experimental group are significantly higher than control group.

The fourth objective was to find out the significant differences on behaviour scores of toddler during intramuscular injection between control and experimental group.

H02-There is no significant differences on behaviour scores of toddler during intramuscular injection between control group and experimental group.

The mean percentage (Face- 81.11%,Cry- 90.00%, child verbal - 95.56 %, torso-97.78%, limbs - 96.67%, activity - 97.78%, interaction with the environment -95.56%) of experimental group was significantly different from the mean percentage (Face-45.56%,Cry-43.33%, child verbal -41.11%, torso-37.78%, limbs -38.89%, activity -38.89%, interaction with theenvironment -35.56%) of control group. Hence, the null hypothesis was rejected and research hypothesis was accepted, which indicate that there was significant differences on behaviour scores of toddler during intramuscular injection between control group and experimental group.

CONCLUSION:

From the findings of the present study it can be concluded that the play materials are effective divertional therapy during intramuscular injection, in terms of gain in behaviour scores among the toddler of experimental group . The study findings also revealed that the unpaired 't' test was statistically significant ('t'58=2.02) at 0.05 level of significance. The play materials are the effective divertional therapy

Limitation:

The study was limited to:

I) Toddler who were came for DPT immunization only.
ii) Effectiveness of play materials as a divertional therapy was assessed in terms of behaviour scores only.
iii) Non-probability purposive sampling technique was used.

REFERENCES

1. Hockenberry J.M. Essentials of Pediatric Nursing.7th ed. New Delhi: Elsevier; 2008. p669- 82,715.
2. Marlow R D, Redding A.B. Text book of Pediatric nursing.6th ed. New Delhi: Elsevier; 2013.p581.
3. Kalia R. Pediatric Nursing procedures. 1st ed. New Delhi: Jaypee; 2012 .p43.
4. Dtta P. Pediatric Nursing.3rd ed. New Delhi: Jaypee;2014. p129-30.
5. Polit F.D, Beck T.C. Nursing research principles & methods.7th ed. New Delhi: 2008. Lippincott Williams & Wilkins;p118-19.
6. Sharma S. Fundamentals of nursing research. 1st ed. Jaypee; New Delhi:p70.
7. Denise F. Polit B. Nursing research.8thed.Lippincott Williams &Wilkins publishers: Philadelphia; 2008.p
8. Basavanthappa BT. Nursing Research. Jaypee: New Delhi; 2006.p
9. Grove K S, Bruns N. Understanding nursing research. Building on evidence based practice.4th ed. New Delhi: Elsevier; 2008. P531.
10. Mahajan B K. Methods in biostatistics for medical students & research workers. 7th ed. New Delhi: Jaypee; 2012 .p6.