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Effectiveness of Therapeutic Play Intervention on Pain Distraction Among Under Five Children Admitted in Selected Paediatric Hospitals

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ABSTRACT

BACKGROUND: Play and recreation are a natural part of childhood, and vital to normal development. Children are able to learn, master experiences, express themselves, cope with anxiety, create, achieve, and develop skills through play and recreational activity. Play also helps children learn to adapt to the healthcare experience. Play and recreation can be therapeutic by giving children the opportunity to explore, express and process their healthcare experiences in a safe, non-threatening environment.

OBJECTIVES: The researcher aimed to assess the level of pain among the hospitalized under five children and to evaluate the effectiveness of therapeutic play intervention on pain distraction.

MATERIAL& METHODS: Quantitative approach with pre experimental one group pre test post test design including 50 under five children admitted in a selected hospital were recruited as samples using non probability convenience sampling technique and a semi structured questionnaire on demographic profile and standardised FLACC behavioral pain assessment scale was administered to collect data. Data analysis was done by using descriptive and inferential statistics.

RESULTS: The collected data were tabulated and analysed by using descriptive and inferential statistics. The obtained paired't' calculated value 28.11 is more than tabulated t value 2.000 at 0.05 level of significance with df = 49.The obtained χ^2 value of demographic variables such as age, gender, ordinal position in the family and previous hospitalization are less than the table value of χ^2at 0.05 level of significance. Hence the obtained χ^2value is not significant, and the obtained χ^2value of the variable length of stay in hospital of under five children, is more than the table value at 0.05 level of significance and found significant. ThereforeH_1 is accepted**.**

CONCLUSION: It was clearly understood that the therapeutic play intervention was effective in pain distraction among the hospitalized children. This technique also can be applied among children of various age groups in order to divert the child from any painful procedures.

KEYWORDS: Therapeutic Play, Recreation, Hospitalization, Under five children, FLACC scale

1. INTRODUCTION

Excessive stress and anxiety experienced by children can affect their physical and physiological health, hinder their ability to deal with medical procedures, cause changes in their behavior, and affect their recovery from illness. Therefore, there is an urgent need for clinical researchers to develop, implement, and evaluate interventions that can minimize the children's anxiety level and improve their ability to handle the stress of hospitalization and invasive procedures[1].

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Through play children experience a range of emotions including frustration, determination, achievement, disappointment and confidence, and through practice, can learn how to manage these feelings. Play is widely agreed to be the natural mechanism through which children better understand their thoughts and feelings and 'prevent or resolve psychological challenges and learn to manage relationships and conflicts through a natural, self-guided, self-healing process'. Play can be a way for children to make sense of what is happening to them. It can be a means of 'playing out' material in a way that is restorative and healing[2].

In the hospital context, play is often used for role play and conflicts, promoting catharsis, which signifies relief and purification of the individual. Its curative function is therefore evident, as it allows the child to elaborate her conflicts and relieve her anxiety. After all, expression through play is the most natural form of self-therapy at the child's disposal[3].Removal from one's home and entry to the intimidating environment of a hospital cause acute anxiety and stress both to the child and to the child's family. These negative feelings are intensified whenever there is a chronic or severe and life-threatening disease. The main causes of such feelings seem to include fear of medical examinations, pain, death, fear of separation from the parents, and fear of diagnosis, uncertainty, loss of control and safety[4].

The hospitalisation process is stressful and traumatic for children because it removes them from their daily, family environment and places them in an unknown location that is permeated by fear, a confrontation with pain, physical limitation, and passivity. The anxiety and fear that children feel during procedures triggers a response of intense emotional distress that, in turn, leads to regression, separation anxiety, apathy, fear and sleep disturbances. Children must be emotionally prepared for these moments through special and distinctive care that can acknowledge and meet their needs. Hospitalised children should be viewed as active and participating subjects of the hospitalisation process. In addition to meeting physical needs, the provided care should consider emotional and social needs and include techniques that enable communication and bonding, such as the use of play[5].

HYPOTHESIS

H_1: There will be significant pain distraction during therapeutic play intervention among under five children admitted in hospital.

MATERIAL & METHODS

The researcher has adopted quantitative, pre experimental one group pre-test post test research design to carry out the present study. Samples were under five children admitted in selected pediatric hospital and recruited by non probability convenience sampling technique. 50 under five children were selected based on inclusion and exclusion sampling criteria. The Data was collected through interview schedule. A semi structured questionnaire was planned to collect the demographic variables. Standardised FLACC behavioural pain assessment scale was used to assess the pain level of under five children. The tool was validated by the experts for its feasibility and convenience. A semi structured questionnaire was planned to collect the demographic variables, which includes 5 variables. They are Age of the child, gender, ordinal position in the family, length of hospital stay and previous hospitalization of under five children.At the onset demographic characteristics of the respondents was recorded and administered FLACC pain assessment scale. The score was interpreted as 0 – Relaxed and comfortable, 1 -3 = Mild pain, 4 – 6 = Moderate pain, 7 – 10 = Severe pain. After obtaining formal administrative approval from the concerned authorities and informed consent from the parents the investigator

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personally collected the demographic data. After which data was collected in three phases; Pre-test, Administration of therapeutic play intervention and Post test.

2. FINDINGS

Frequency and percentage distribution of the samples in terms of demographic data were analysed at the onset. Out of 50 samples 46% were aged between 13 months to 24 months. Majority 28 children (56%) were female children, among all, 24 children (48%) were first born child, and 18 children (36%) stay in hospital was 1-3 days, 14 children (28%) stay was between 4-6 days, 14 children (28%) stay was between 7-9 days and 4 children (8%) stay was more than 10 days. 38 children (76%) had no experience of previous hospitalisation and 12 children (24%) had the experience of previous hospitalisation.
During pre-test assessment of pain, 6 children (12%) had mild discomfort and 20 children (40%) had moderate pain and 24 children (48%) had severe pain and none of them was free from pain.

n = 50

Pre-Test –Flacc Pain Score		
Criteria	**Frequency**	**Percentage**
Relaxed & comfortable = 0	0	0
Mild discomfort = 1 – 3	6	12%
Moderate pain = 4 – 6	20	40%
Severe pain = 7 – 10	24	48%

The post test pain assessment revealed that, 34 under five children (68%) were relaxed & comfortable, 16 children (32%) were having mild discomfort.

n = 50

Post-Test- Flaccpain Score		
Criteria	**Frequency**	**Percentage**
Relaxed & comfortable = 0	34	68%
Mild discomfort = 1 – 3	16	32%
Moderate pain = 4 – 6	0	0
Severe pain = 7 – 10	0	0

To find the significant difference between the mean pre- test and post- test level of pain, paired "t" test was used. In order to test the significant statistical difference between the mean pre- test and post-test pain score.

Variables		**Mean**	**Mean Difference**	**Sd**	**Se**	**T-Value**	**S Significance**
Stress score	Pre-test	6.28	4.88	51	21	2 8.11*	S
	Post-test	1.04					

t (0.05, 49) = 2.000

This table Depicts mean, standard deviation of pre-test and post-test with the mean difference, SD, SE, paired't' value, df value of pre-test and post test pain scores. It indicates that there is significant

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difference between pre and post therapeutic play intervention on pain distraction among under five children. To test the hypothesis, paired't' test was used. The outputs were depicted in the above table. The table reveals that there is significant difference between pre therapeutic play interventional test pain score and post interventional test pain test score with 0.05 level of significant at df = 49. Calculated't' (28.11) is greater than the tabulated' value (2.000) hence H_1 is accepted and the therapeutic play intervention is found effective.
The researcher also found the association between pretest score with selected demographic variables of the participants. The obtained χ^2 value = 23.42 of length of stay in hospital of under five children is greater than the table value of χ^2= 12.59 at 0.05 level of significance with df = 6. Hence the obtained χ^2 value is found significant. It is concluded that there is no significant association between other demographic variables like age group of children, gender, ordinal position in the family, previous hospitalisation with pretest pain scores.

DISCUSSION

The study results coincide with a randomized controlled trial employed by Ho Cheung William (2008) among Children (7–12 years of age; n = 203) admitted for surgery. The results support the effectiveness and appropriateness of using therapeutic play in preparing children for surgery and the study results promote awareness in nurses and parents that play is a very important part of children's lives, and heighten the importance of integrating therapeutic play as an essential component of holistic and quality nursing care to prepare children for surgery[6].

Similar study conducted by LI W.H.C, to evaluate the effectiveness of therapeutic play using virtual reality games revealed that, the children in the experimental group reported statistically significant fewer depressive symptoms than children in the control group on day 7.The study provides empirical evidence to support the effectiveness, feasibility and acceptability of using virtual reality computer games in the psychological preparation of children hospitalized with cancer[7].

Another study conducted by Malathi .A, among hospitalized children aged between 3-6 years regarding effectiveness of therapeutic play to reduce anxiety also revealed that there was marked decrease in the mean value from 43.93 in the pre test level to 31.86 in the post test level of anxiety. The standard deviation is increased from 7.57 in pre test to 17.71 in post test. The't' value at 18.47 is highly significant at $p<0.001$ level. So there was significant decrease in the post test level of anxiety among hospitalized children between 3-6 yrs. Therefore therapeutic play can be used as a safe and effective tool, which helps in reducing anxiety[8].

Hong Hu He, conducted a study to examine if therapeutic play intervention could reduce perioperative anxiety, negative emotional manifestation and postoperative pain in children undergoing inpatient elective surgery. Therapeutic play intervention is effective in reducing negative emotional manifestations before anaesthesia induction and in reducing postoperative pain in children undergoing inpatient elective surgery. These results suggest that it is useful to give children with therapeutic play intervention prior to inpatient elective surgery[9].

Most studies have found positive results from implementing therapeutic play including study conducted on cancer patients A field research conducted by Michelle Badista, among the children found that 53.8% demonstrated their pain as 1 in a scale of 0 to 5 prior to therapeutic play and 23.1% expressed

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their pain as 0 after therapeutic play. The changes observed in relation to pain behaviours are solid indications that therapeutic play is an effective strategy for pain management in hospitalized children.[10]

3. CONCLUSION

Therapeutic play is considered as a tool for children to communicate with others during hospitalization. It provides a unique experience to children in terms of recreation, distraction from pain and reduces stress and depression. Health care providers have to ensure the facilities for recreation at paediatric hospital and staffs must be trained in engaging them with therapeutic play during invasive and painful procedures. A further, experimental study has to be conducted on this arena for innovative pain distractive measures especially for children.

ETHICAL CLEARANCE

The study was conducted after obtaining written consent from the participants and formal approval from the institutional ethics committee.

CONFLICT OF INTEREST

The author declares that there is no conflict of interest to disclose.

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The researcher didn't receive any funding from other sources and declares that this is a researcher's self funded project.

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