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RESEARCH ARTICLE

EFFECTIVENESS OF AUDIOVISUAL DISTRACTION IN REDUCING ANXIETY AMONG HOSPITALIZED PRESCHOOL CHILDREN ADMITTED TO SELECTED TERTIARY CARE HOSPITAL IN, BELAGAVI CITY

Suvechhya Dewan, Nisha Thapa and Pooja Gauro

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Abstract

Background: Children between the ages of 3 and 6 years old are preschoolers. During the preschool phase, biological, psychosocial, emotional, moral, and social accomplishments are integrated. Preschoolers are pre-operational thinkers who believe in tangible presentation rather than concepts. Therefore, medical instruments and the hospital environment cause anxiety in them. Hospital admission is a traumatic event for both kids and adults, who unexpectedly have to abandon their comfortable residence and the people who are precious to them and avoid their enjoyable pastimes.

Aim: This study aims to assess the effectiveness of audiovisual distraction in reducing hospitalization anxiety.

Methods: This study used a pre-experimental (one group pretest-posttest) research design. Fifty preschoolers were selected using a non-probability convenient sampling technique. Anxiety was, evaluated using the Visual Analogue Scale for anxiety.

Results: During the pretest, 60% of children had severe anxiety, 40% had mild anxiety after the audiovisual distraction, 62% had no anxiety, and 38% had mild anxiety. The mean anxiety level in the pretest score was 6.88, and the post-test score was 3.14, and the P-value was <0.0001. Findings revealed that audiovisual distraction effectively reduces the level of anxiety among hospitalized preschoolers. History and duration of the previous hospitalization have a significant association with the level of anxiety.

Conclusions: Audiovisual distraction is effective in reducing anxiety among hospitalized preschoolers.

Introduction:-

Children naturally fear hospitalization. For children, a hospital stay may be a frightening and traumatic event. Children are oblivious of the causes and possible consequences of hospital stays, affecting children's emotional and mental state. Among these adverse effects, anxiety seems to be the most widely mentioned, and these may be detrimental to the psychophysiological health of the child. Intense pressure often hinders children's success in dealing with health care and raises their unresponsive actions and negative attitudes against health care providers. [1]

Corresponding Author:- Suvechhya Dewan

According to many reports, preschoolers get more inpatient worries than older kids because of their developmental process. [2–4] The preschooler cannot fully discern fact from the imagination, and the capacity of the child to convey and deal with their worries is minimal. [5]

Acute anxiety and depression for parents and children are triggered by separation from one's residence and entrance into the terrifying environment of a hospital. [6]When there is a highly lethal illness, these unpleasant emotions worsen. Fear of medical screening, discomfort, death, the terror of separation, anxiety, fear of diagnosis, confusion, lack of autonomy, and protection are vital factors of such emotions. [7,8]

Diversion has progressively become a widely accepted non-pharmacological pain relief approach in children's health care. In this context, distraction, often pointed to as accord or substitute target, refers to a reasonably basic but successful pain and anxiety treatment correlated with techniques that include directing focus to a pleasant deviation apart from the unpleasant emotion. [9]

Based on the child's stage of interaction, diversification can be outlined into active or passive categories. The dynamic methods involve the child's collaborative participation, either by making decisions engaging in discussion, or guiding the preferred distraction action. On the other hand, passive techniques may involve listening, watching videos, or other diversion techniques that require passive interaction to operate. There may be a limitless source of equipment included within both of these groups; however, some have been more extensively studied than others. [10]

Audiovisual diversion is the most efficient of the diversion techniques utilized during the school era. [11] Audiovisual diversion, such as cartoon diversion, is a short, laborsaving, easy-to-use intervention that eases child pain and anxiety as equitably and efficiently as traditional psychological therapy during stressful activities. [12]

One of the most traumatic experiences in a kid's life is being admitted to a hospital. There are various factors for children that they fear and cannot express. The level of anxiety and the disorder diagnosed during hospital admission have a strong relationship. Therefore, children undergoing medical treatment highly require emotional and mental support either through hospital facilitation or through medical professionals. As a result, this study aims to see how effective audiovisual distraction reduces anxiety in preschool children admitted to pediatric wards.

Materials and Methods:-

The Ethical Clearance Committee of the KAHER Institute of Nursing Sciences approved the study. The study design was a pre-experimental one-group pretest, post-test research design conducted in the pediatric wards of KLES Dr. Prabhakar Kore Charitable Hospital, Belagavi. The Non-probability convenient sampling technique enrolled a total of 50 hospitalized preschool children. Inclusion criteria were hospital admitted children of age 5 and 6 years and the participants who were agreeable to be part of the study. In contrast, children who were critically ill and had mental and physical disabilities were excluded from the study.

The aim and method of the study were explained to the parents of the participant. Verbal and written authorization was taken from the progenitor of each participant before data collection. None of the respondents was forced to participate in the study. In addition, the respondent's confusion was explained.

Background demographic information was collected. Visual Analogue Scale performed a pretest for anxiety, and the researcher intervened with audiovisual distraction. The researcher demonstrated the cartoon named "Three little pigs," translated into the Kannada language, 11-12 min in length, and immediately applied the identical tool post-test. Data were collected in both morning and evening time.

Statistical Analysis

The collected data were analyzed by using descriptive and inferential statistics.

Results:-

Table 1 depicts the frequency and percentage distribution of demographic profile, disclosing that the maximum number of children, 34(68%), belongs to 5 years of age, and 16(32%) belongs to 6 years of age. Concerning gender, both male and female children distribution was parallel, i.e., 50% in each group. Concerning religion majority, 34(68%), follow Hinduism. The majority, 17(34%), were going to U.K.G standard, 15(30%) L.K.G, 14 (28%)

Nursery, and 4 (8%) didn't join the school. Uniform distribution was seen in the type of family, i.e., 25(50%) in nuclear and 25(50%) in joint. Concerning birth order maximum of 23(46%) were second-born. The majority, 31(62%), were admitted to the hospital for the first time, while 19 (38%) had a previous history of hospitalization. Regarding the duration of the previous hospitalization, 7(36.84%) were admitted for 7 to 14 days and above 15 days. A maximum of 33(66%) mothers attended to their children while a minimum of 4 (8%) were relatives.

Table 2 shows that 30(60%) of children had severe anxiety while 20(40%) of the children had mild anxiety. In addition, the standard deviation of 0.49487.

Table 3 projects the mean and standard deviation between pre and post-test anxiety levels. The mean anxiety level decreased significantly from 6.88 in the pretest to 3.14 in the post-test. The standard deviation in the post-test increased from 1.30 in the pretest to 1.50. The 'Z' value at 5.9683 is highly significant at $p<0.001$.

Table 4 shows that a history of previous hospitalization has a significant association with anxiety. Age, gender, religion, schooling, types of family, birth order, duration of prior hospitalization, and primary caretaker were not significantly associated with pretest level of anxiety.

Table 5 shows that the duration of the previous hospitalization has a significant association with the level of anxiety, while other demographic variables were not significantly associated with the post-test level of stress.

Table 1:- Demographic profile of hospitalized preschool children**.**n= 50.

Profile	Frequency	Percentage
Ages		
5yrs	34	68.00
6yrs	16	32.00
Sex		
Boys	25	50.00
Girls	25	50.00
Religion		
Hindu	34	68.00
Muslim	16	32.00
Schooling		
Not joined	4	8.00
Nursery	14	28.00
LKG	15	30.00
UKG	17	34.00
Type of family		
Nuclear	25	50.00
Joint	25	50.00
Birth order		
Firstborn	19	38.00
Second born	23	46.00
Above	8	16.00
History of the previous hospitalization		
Yes	19	38.00
No	31	62.00
Duration of the previous hospitalization		
1-7days	5	26.32
7-14days	7	36.84
>15days	7	36.84
Primary caretaker		
Mother	33	66.00
Father	13	26.00
Relatives	4	8.00

Total	50	100.00

Table 2:- Pretestanxiety level among hospitalized preschool childrenn= 50.

Pretest		Frequency	Percent	Mean	Median	S.D
Valid	Mild anxiety	20	40.0	2.6000	3.0000	0.49487
	Severe anxiety	30	60.0			
	Total	50	100.0			

Table 3:- Comparison of pretest and post-test levels of anxietyn= 50.

Anxiety	Mean	Median	SD	Q1	Q3	Change	% of change	Z-value	p-value
Pre-test	6.88	7.00	1.30	6.00	8.00				
Post-test	3.14	3.00	1.50	2.00	4.00	3.74	54.36	5.9683	<0.001

Table 4:- Association between pretest levels of anxiety with demographic variables.n= 50

Profile	Pretest levels of anxiety						χ^2	p-value
	Mild anxiety	%	Severe anxiety	%	Total	%		
Ages								
5yrs	14	41.18	20	58.82	34	68.00	0.0610	0.8040
6yrs	6	37.50	10	62.50	16	32.00		
Sex								
Boys	9	36.00	16	64.00	25	50.00	0.3330	0.5640
Girls	11	44.00	14	56.00	25	50.00		
Religion								
Hindu	14	41.18	20	58.82	34	68.00	0.0610	0.8040
Muslim	6	37.50	10	62.50	16	32.00		
Schooling								
No	2	50.00	2	50.00	4	8.00	3.2990	0.3480
Nursery	3	21.43	11	78.57	14	28.00		
LKG	8	53.33	7	46.67	15	30.00		
UKG	7	41.18	10	58.82	17	34.00		
Type of family								
Nuclear	11	44.00	14	56.00	25	50.00	0.3330	0.5640
Joint	9	36.00	16	64.00	25	50.00		
Birth order								
First born	4	21.05	15	78.95	19	38.00	4.5960	0.1000
Second born	12	52.17	11	47.83	23	46.00		
Above	4	50.00	4	50.00	8	16.00		
History of the previous hospitalization								
Yes	12	63.16	7	36.84	19	38.00	6.8480	0.0090*
No	8	25.81	23	74.19	31	62.00		
Duration of previous hospitalization								
1-7days	2	16.67	3	42.86	5	26.32	1.5640	0.4580
7-14days	5	41.67	2	28.57	7	36.84		
>15days	5	41.67	2	28.57	7	36.84		
Primary caretaker								
Mother	15	45.45	18	54.55	33	66.00	1.2460	0.5360
Father	4	30.77	9	69.23	13	26.00		
Relatives	1	25.00	3	75.00	4	8.00		
Total	20	40.00	30	60.00	50	100.00		

Table 5:- Association between post-test levels of anxiety with demographic characteristics.n= 50

Profile	Posttest levels of anxiety						χ^2	p-value
	No anxiety	%	Mild anxiety	%	Total	%		
Ages								

5yrs	21	61.76	13	38.24	34	68.00	0.0020	0.9600
6yrs	10	62.50	6	37.50	16	32.00		
Sex								
Boys	18	72.00	7	28.00	25	50.00	2.1220	0.1450
Girls	13	52.00	12	48.00	25	50.00		
Religion								
Hindu	18	52.94	16	47.06	34	68.00	3.7010	0.0540
Muslim	13	81.25	3	18.75	16	32.00		
Schooling								
No	3	75.00	1	25.00	4	8.00	0.5050	0.9180
Nursery	8	57.14	6	42.86	14	28.00		
LKG	9	60.00	6	40.00	15	30.00		
UKG	11	64.71	6	35.29	17	34.00		
Type of family								
Nuclear	15	60.00	10	40.00	25	50.00	0.0850	0.7710
Joint	16	64.00	9	36.00	25	50.00		
Birth order								
First born	12	63.16	7	36.84	19	38.00	0.0240	0.9880
Second born	14	60.87	9	39.13	23	46.00		
Above	5	62.50	3	37.50	8	16.00		
History of previous hospitalization								
Yes	9	47.37	10	52.63	19	38.00	2.7850	0.0950
No	22	70.97	9	29.03	31	62.00		
Duration of previous hospitalization								
1-7days	5	55.56	2	20.00	7	36.84	6.3940	0.0410*
7-14days	2	22.22	3	30.00	5	26.32		
>=15days	2	22.22	0	0.00	2	10.53		
Primarycare taker								
Mother	20	60.61	13	39.39	33	66.00	0.3150	0.8540
Father	8	61.54	5	38.46	13	26.00		
Relatives	3	75.00	1	25.00	4	8.00		

Discussion:-

The frequency and percentage distribution of demographic profile disclose that a maximum number of children, 34(68%), belong to 5 years of age, and 16(32%) belong to 6 years of age. Concerning gender, both male and female children distribution was parallel, i.e., 50% in each group. Regarding the religious majority, 34(68%) follow Hinduism. The majority, 17(34%), were going to U.K.G standard, 15(30%) L.K.G, 14 (28%) Nursery, and 4 (8%) didn't join the school. Uniform distribution was seen in the type of family, i.e., 25(50%) in nuclear and 25(50%) in joint. Concerning birth order maximum of 23(46%) were second-born. The majority, 31(62%), were admitted to the hospital for the first time, while 19 (38%) had a previous history of hospitalization. Regarding the duration of prior hospitalization, 7(36.84%) were, admitted for 7 to 14 days and above 15 days. A maximum of 33(66%) mothers attended to their children while a minimum of 4 (8%) were relatives.

The findings show that 30(60%) children had severe anxiety, while 20(40%) had mild anxiety. M. Bharathi supports these study findings. [13] The pretest result reveals that 50% had severe anxiety levels and 15% had mild anxiety before applying play therapy. The Wilcoxon matched-pairs test was applied to assess the effectiveness of audiovisual distraction. There was a marked decrease in the mean value from 6.88 in the pretest to 3.14 in the post-test. The findings reveal that hospitalized preschool children's stress levels decreased after the implementation of audiovisual distraction. D. Khandelwal assists these study findings, N. Kalra, R.Tyagi et al. [14] The mean and standard deviation of $1.89 \pm 1.11 \downarrow$ shows that a decrease in the level of anxiety by use of audiovisual distraction. The association was discovered using the λ^2 test. The result shows that history of the previous hospitalization has a significant association with the level of anxiety while age, gender, religion, schooling, types of family, birth order, duration of the previous hospitalization, and primary caretaker were not significantly associated with pretest level of anxiety.

Association of the post-test level of anxiety with demographic profiles shows that the duration of the previous hospitalization has a significant association with stress level. In contrast, other demographic variables were not significantly associated with the post-test level of anxiety.

A. Malathi supported this study. [15] The researcher's findings conclude that duration of hospitalization was significantly associated with pretest and post-test levels of anxiety.

Conclusion:-

Audiovisual distraction is effective in reducing the level of anxiety among hospitalized preschoolers. Nurses must be mindful of the anxiety that children in hospitals are feeling. Nurses can use distraction techniques to help children cope with anxiety. A playroom with facilities for audiovisual distraction in a hospital setting can be created to familiarize children with the hospital environment.

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