Effectiveness of Play Therapy on Reduction of Stress among the Leukemic Children between the Age Group of 8-18 Years in Selected Hospitals at Nagercoil, Tamil Nadu

Mr. Gopi S. S

M.Sc Nursing, Tn Dr. M. G. R. Medical University, Matha College of Nursing, Manamadurai, Tamil Nadu, India

ABSTRACT

A study to assess the effectiveness of play therapy on reduction of stress among the leukemic children between the age group of 8-18 years in selected hospitals at Nagercoil, Tamilnadu, was conducted in partial fulfillment of the requirement for award the degree in Master of Science in Nursing under the Tamilnadu Dr. M.G.R. Medical University, Chennai.

KEYWORDS: Effectiveness, Play therapy, stress, leukemic children

INTRODUCTION

Leukemia is a disease characterized by abnormal proliferation and maturation of bone marrow. The leukemia process in the bone marrow interfered with the production of normal red blood cells, white blood cells and platelets.

Leukemia is more common malignancy of children less than 15 years of age. The peak incidence is 4 years of age. The peak incidence among males is greater than that in females often leukemia and hospitalization are first crises in children and it will create more stress.

NEED OF STUDY

Leukemia is one of the malignant disorders. It leads severe stress and frustration to the child comparing the other children who having another illness. The leukemia children's are having more stress due to severe symptoms like bleeding, fever, pain, vomiting, fatigue, muscle wasting, weight loss, hepatomegaly, splenomegaly, lethargy and irritability.

Leukemia is classified into **acute** (rapidly developing) and **chronic** (slowly developing) forms. In children, about 98% of leukemia's are acute.

Approximately 60% of children have acute lymphoid leukemia (ALL), and about 38% have acute myelogenous leukemia (AML). Although slow-growing chronic myelogenous leukemia (CML) may also be seen in children.

STATEMENT:

"A study to assess the effectiveness of play therapy on reduction of stress among the leukemic children between the age group of 8-18 years in selected hospitals at Nagercoil."

OBJECTIVES:

➢ To assess the level of stress among the children before and after giving play therapy between the age group of 8-18 years with leukemia.

- ➤ To evaluate the effectiveness of play therapy on reduction of stress among the leukemic children.

- ➤ To find out the interrelationship between physical, psychological, social and spiritual level of stress.

- ➤ To find out the association between the level of stress and selected demographic variables such as age of the client, gender, educational status of the children, religion, type of family, family monthly income (in rupees), number of children in the family, type of leukemia, duration of illness, frequency of hospitalization, place of residence, method of food preparation, family history of cancer and habit of consuming Jung foods.

HYPOTHESIES:
- ➤ There will a be a significant reduction of stress in the post test score than in the pretest score.

- ➤ There will be a significant interrelationship between physical, psychological, social and spiritual level of stress.

- ➤ There will be a significant association between the level of stress and selected demographic variables such as age of the client, gender, educational status of the children, religion, type of family, family monthly income (in rupees), number of children in the family, type of leukemia, duration of illness, frequency of hospitalization, place of residence, method of food preparation, family history of cancer and habit of consuming Jung foods.

RESEARCH APPROACH
- ➤ The quantitative research approach was used to assess the effectiveness of play therapy.

RESEARCH DESIGN
- ➤ Pre experimental one group pretest and post test design was adopted for this study. It involves manipulation of experimental group and no control group in this study. In the experimental groups who have stress due to leukemia those were selected and given pretest, intervention and post test.

POPULATION
The population of this study was the leukemic children in the age group of 8 -18 years.

SAMPLE
Samples were in the age group of 8-18 years who were hospitalized in and around Nagercoil.

SAMPLE SIZE
60 samples were selected for this study who fulfills the inclusion criteria.

SAMPLING TECHNIQUE
Purposive sampling technique was used to select 60 samples.

CRITERIA FOR SELECTION OF SAMPLE
Inclusion criteria
- ➤ Children in the age group of 8-18 years.
- ➤ Children those who were willing to participate in this study.
- ➤ Both male and female children were included.
- ➤ Children' diagnosed with leukemia for a minimum period of one year.
- ➤ Children who were residing in Nagercoil.

Exclusion criteria:
- ➤ Children who were not willing to participate in this study.
- ➤ Children in the age group of below 8 years and above 18 years.
- ➤ Children with newly diagnosed leukemia.

DESCRIPTION OF TOOL
Section –I
It deals with the demographic variables of samples such as the age of the client, gender, educational status of the children, religion, type of family, family monthly income (in rupees), number of children in the family, type of leukemia, duration of illness, frequency of hospitalization, place of residence, method of food preparation, family history of cancer and habit of consuming Jung foods.

Section- II
Modified perceived stress assessment scale was used to assess the level of stress in leukemic children.

SCORING PROCEDURE
Section – I
The demographic variables were not scored but used for descriptive analysis.

Section- II
Modified Perceived Stress assessment scale was used to assess the level of stress. The total items are 25. This tool was a four point scale with response **never, sometimes, rarely and always.** The scale consisted of both positively items no 8,11,12,13,15,16,20,21,22,23,24,25 and negatively worded items no 1,2,3,4,5,6,7,9,10,14,17,18,19. The score given for the responses were 1, 2, 3 and 4 respectively for the positive items and a reverse scoring for the negative items. The stress of cancer patients was graded into **mild, moderate and severe** depending on the total score. Maximum score was 100 and minimum score was 25 and total score was 100.

RESULT

Figure – 1 Comparison between the pre test and post test for the Level of Stress

N=60
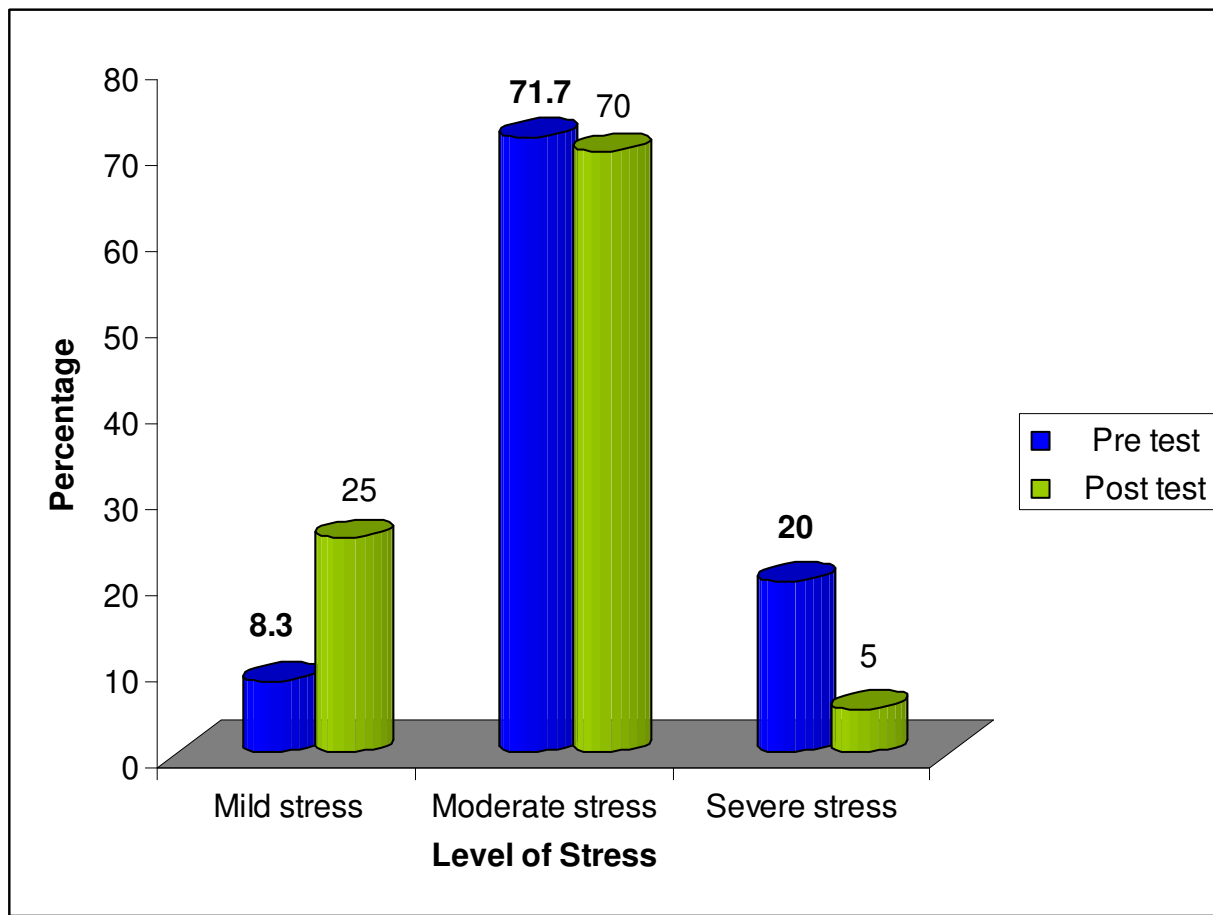
SECTION III Effectiveness of play therapy on reduction of stress

Table: 3 Mean post test score which was significantly lower than mean pre test score.

(N=60)

Sl. no	Level of stress	Mean	Standard Deviation	t-value	Table Value
1.	Before intervention	63.1333	4.20841	7.962*	2.000
2.	After intervention	58.8333	3.64141		

*- Significant at 0.05 level

The above table depicts Mean posttest score on the level of stress was 58.8333 which was significantly lower than the pretest score 63.1333 and the computed value of 't' was 7.962 is more than the table value [2.000] at df [59] which was statistically significant at 0.05 levels. This data showed that play therapy was effective in reduction of level stress.

SECTION IV

Table: 4 Interrelationship between physical, psychological, social and spiritual level of stress after intervention.

(N=60)

S. No	Variables	Physical (r)	Psychological (r)	Social (r)	Spiritual (r)
1.	Physical (r)	1	0.209	0.044	0.130
2.	Psychological (r)	0.209	1	-0.210	-0.259*
3.	Social (r)	0.044	-0.210	1	0.067
4.	Spiritual (r)	0.130	-0.259*	0.067	1

*-correlation is significant at the level at the 0.05 level (2 tailed).

Table 4 illustrated that interrelationship between physical, psychological, social and spiritual level of stress. The physical level of stress was positively correlated with psychological, social and spiritual level of stress [r=0. 209, 0.044, 0.130]. Psychological level of stress was negatively correlated with Social and spiritual level of stress [r=-0.210, -0.259*] and the level of social stress was positively correlated with the level of spiritual stress [r=0. 067].

SECTION V

Table: 5 Associations between level of stress and demographic variables.

[N=60]

S. No	Demographic variables	level of stress						Table value	chi-square value (χ2)
		Mild		Moderate		Severe			
		F	%	F	%	f	%		
1.	Age ➢ 8-10 years ➢ 11-13years ➢ 14-16years ➢ 17-18 and above	0 2 10 3	0 3.3 16.6 5	2 17 13 10	3.3 28.3 21.6 16.6	0 1 1 1	0 1.6 1.6 1.6	12.59	**7.064#**
2.	Gender ➢ Male ➢ Female	5 10	8.3 16.6	22 20	36.6 33.3	2 1	3.3 1.6	5.99	**2.031#**
3.	Educational status ➢ Primary ➢ secondary ➢ higher secondary	1 11 3	1.6 18.3 5	6 29 7	10 48.3 11.6	0 3 0	0 5 0	9.49	**1.900#**
4.	Religion ➢ Hindu ➢ Christian ➢ Muslim ➢ others	7 5 2 1	11.6 8.3 3.3 1.6	17 19 4 2	28.3 31.6 6.6 3.3	2 1 0 0	3.3 1.6 0 0	12.59	**1.637#**
5.	Type of family ➢ Nuclear family ➢ Joint family	15 0	25 0	38 4	63.3 6.6	3 0	5 0	5.99	**1.837#**
6.	Monthly income ➢ Below Rs1,000 ➢ Rs 1,001-3,000 ➢ Rs 3,001-5,001 ➢ Rs 5001 -7000 ➢ Rs7,001and above	1 1 4 7 1	1.6 1.6 6.6 11.6 1.6	1 4 19 13 5	1.6 6.6 31.6 21.6 8.3	0 1 0 2 0	0 1.6 0 3.3 0	15.51	**6.636#**
7.	No of children's in the family ➢ One ➢ Two ➢ Three ➢ Four and above	5 6 3 1	8.3 10 5 1.6	21 9 7 5	35 15 11.6 8.3	1 1 1 0	1.6 1.6 1.6 0	12.59	**3.334#**
8.	Type of leukemia ➢ ALL ➢ AML ➢ CML ➢ CLL	11 1 3 0	18.3 1.6 5 0	27 8 5 2	45 13.3 8.3 3.3	3 0 0 0	5 0 0 0	12.59	**4.020#**
9.	Duration of illness ➢ 1-2 years ➢ 2-3 years ➢ 3-4 years	13 2 0	21.6 3.3 0	27 13 2	45 21.6 3.3	1 2 0	1.6 3.3 0	9.49	**5.082#**
10	Frequency of hospitalization ➢ Always ➢ Alternative days ➢ Every week once ➢ Every monthly once	4 2 4 5	6.6 3.3 6.6 8.3	9 9 12 12	15 15 20 20	1 0 1 1	1.6 0 1.6 1.6	12.59	**1.377#**
11	Place of residence ➢ Urban ➢ Rural	10 5	16.6 8.3	18 24	30 40	3 0	5 0	5.99	**5.463#**

12	Method of food preparation								
	➤ Gas stove	12	20	38	63.3	3	5	15.51	**7.281#**
	➤ Fire wood	1	1.6	2	3.3	0	0		
	➤ Microwave	0	0	2	3.3	0	0		
	➤ Induction stove	1	1.6	0	0	0	0		
	➤ Kerosene stove	1	1.6	0	0	0	0		
13	previous history of cancer in the family								
	➤ Brothers and sisters	2	3.3	0	0	0	0	9.49	**8.053#**
	➤ Grandparents	2	3.3	2	3.3	0	0		
	➤ None	11	18.3	40	66.6	3	5		
14	Habit of taking Jung foods.								
	➤ Never	13	21.6	39	65	1	1.6	9.49	**16.472***
	➤ Occasionally	2	3.3	1	1.6	2	3.3		
	➤ Frequently	0	0	2	3.3	0	0		

#- not significant
* - significant at 0.05 levels

The hypothesis stated that there will be a significant association between levels of stress and demographic variables. The same result was statistically proved. Above table depicts that the demographic variable like, habit of taking Jung food had **highly significant association at 0.05 level** and the demographic variable such as age of the client, gender, educational status of the children, religion, type of family, family monthly income (in rupees), number of children in the family, type of leukemia, duration of illness, frequency of hospitalization, place of residence, method of food preparation and family history of cancer were not having association with level of stress.

CONCLUSION:
The following conclusions were made based on the above finding Most of the subjects were in moderate and mild level of stress after the intervention so the play therapy was effective in reducing the level of stress. The study was encouraging to all the age groups of children to reduce their stress. This was free of cost and done easily. It can be integrated into clinical practice and health education in order to enhance the life span of young children. A play therapy should focus on modifying the behavior and improving flexibility and recovering from stress. By working closely with the hospitalized children, the nurse can determine which plan will work for the person, based on the individual's needs and preferences.