



RESEARCH ARTICLE

KNOWLEDGE ON LEUKEMIA, THE STRESS AND COPING STRATEGIES OF MOTHERS WITH LEUKEMIC CHILDREN UNDERGOING TREATMENT IN A SELECTED CANCER INSTITUTE, INDIA

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ABSTRACT

Childhood Leukemia affects the entire family. It affects mainly the mothers. The mothers are facing various problems such as higher degree of anxiety, depression, feeling of guilty, Inferiority and social Isolation due to chronic illness of their children. The objectives are to assess the knowledge of mothers on Leukemia. To identify the stress experienced by the mothers with Leukemic children. To determine the coping strategies adapted by the mothers with Leukemic children. To relate the demographic characteristics with the stressors faced by the mothers with Leukemic children. To correlate the demographic characteristics with the coping strategies adapted by the mothers with Leukemic children. To compare the knowledge, stress and coping strategies of mother with Leukemic children.

Methodology Quantitative non- experimental descriptive survey was adapted, the study was conducted among 40 mothers of leukemic children in selected cancer institute, Adyar, Chennai. Probability Random Sampling Technique was used and data collected through a semi-structured interview schedule. The Study Findings shown, the mother's knowledge regarding leukemia was 43%. The stress faced by mothers with Leukemic children was 71.8% 60% of mothers were adapted coping strategies. No significant relationship between socio demographic variables with stress faced by the mothers. Significant relationship between coping strategies adapted by the mothers with socio demographic variables High degree of significant positive correlation existing between mothers knowledge with coping strategies adapted by the mothers. low degree of significant positive correlation existing between mothers knowledge and stress faced by the mothers.

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INTRODUCTION

Leukemia is primary malignancies of the bone and retains white blood cells. Because of the white blood cells are immature and non- functional, infection is a primary consequences. The childhood Leukemia affects the entire family. It affects mainly their mother.

They are the one completely fulfilling the needs of their children. Indian mother are the one who take care of their children and responsible for their health. In the case of Leukemia, the mothers experience increased level of stress. Mothers with Leukemic children are more prone to be emotionally affected and develop strips by death of Leukemic children.

More and more 21st century health problem have been linked with the effects of stress. It's estimated that many health complaints are stress related. Nursing today is graced towards the holistic approach where all aspects of care such as physical, emotional, social, spiritual are included. Nurses in the 21st century are coming up with the idea of extended role.

Need For The Study

The childhood Leukemia has remarkable that is 70% acute lymphoblastic Leukemia is curable in early stage. The outcome of childhood leukemia is not satisfactory so the misery of leukemia is a blow to every family, it touch with in a family can be the most difficult to handle. The confirmed diagnosis of leukemia can be very devastating and stressful. The hospitalization also represents a stressful event, particularly the mothers of children with leukemia are facing many psychological problems due to the painful treatment schedule for the children. The most productive way to tackle this problem is to motivate the mothers of leukemia children on providing supportive care to improve the survival rates & coping behavior can be used by the mothers to solve a problem or handle a stressful situation.

Investigator during her clinical experience in hematology unit of children is found that stress is experienced by the mothers of leukemic children. Nurses concentrate more on caring the children. Due to their busy schedule in ward routines, they tend to give less importance for psychological support to the parents

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of leukemic children especially the mothers who are the primary care giver of children. So, the investigator felt the need to assess, the knowledge on leukemia, the level of stress the mothers experience and the coping strategies she adapts to overcome stress with leukemic children.

Literature Survey; **N.Gokahget et al** Conducted a survey on parents current knowledge of treatment for acute lymphoblastic leukemia in university hospital Germany. The study was conducted by for 120 parents examined through the questionnaire. The study was found that 62% of parents had knowledge of chemotherapy and 36% of them had blood transfusion and radio therapy and only 4.6 % of parents know about the bone marrow transplantation.

K. Verma et al : Conducted a study on incidence of leukemia in capital of India. The study was conducted in all India institute of medical science , NewDelhi , India. A total of 20 patients were selected. The result reveals that 68% of the urban places had more incidence of Leukemia.

Boesenecker U et al – conducted a clinical study of the psychosocial status of parents of childhood Leukemia, in kinderlink Tubingen. The result of this study was as chronic life threatening disease- Leukemia in children generates an extreme situation for the 93% of the family involved that can go on for years.

Title of the study:

“The knowledge on leukemia, the stress and coping strategies of mothers with leukemic children undergoing treatment in a selected cancer institute, india”

The objectives of the study are

1. To assess the knowledge of mothers on Leukemia.
2. To identify the stress experienced by the mothers with Leukemic children.
3. To determine the coping strategies adapted by the mothers with Leukemic children.
4. To relate the demographic characteristics with the stressors faced by the mothers with Leukemic children.
5. To correlate the demographic characteristics with the coping strategies adapted by the mothers with Leukemic children.
6. To compare the knowledge, stress and coping strategies of mother with Leukemic children.

A review on related literature enabled the investigator to develop the conceptual frame work. The conceptual framework adapted for the study was based on Roy’s adaption model.

METHODS AND MATERIALS

The study was quantitative, non-experimental descriptive survey in nature was carried out in cancer Institute, Adyar, Chennai. The target population of the study include mothers who have children with leukemia admitted in the cancer institute for treatment. The sample consisted of 40 mothers

with their Leukemic children those attended inpatient department in the hospital, Random Sampling was used to select the samples.

A semi-structured interview schedule was developed to collect data from samples. It had 4 sections. Section-A consist of two parts. Part-I-deals with demographic variables of children with leukemic and part-II-deals with demographic variables of mothers with leukemic children. Section-B-deals with knowledge of mothers with leukemic children. Section-C-deals with the level of stress of mothers with leukemic children. Section-D-deals with coping strategies adopted by the mothers of leukemic children.

Collected data was analyzed using descriptive and inferential statistics in terms of frequencies, percentages, mean, standard deviation, correlation-coefficient and chi-square analysis.

Data Analysis

The data collected through semi-structured interview schedule were analyzed by using descriptive and inferential statistics, which are necessary to provide a substantive summary of results in relation to the following specified objectives

Presentation Of Data

The data is organized and presented under the following sections

Section I : Description of demographic variables of leukemic children and socio –demographic variable of mother with leukemic children using percentage analysis.

Section II: Descriptive analysis on knowledge of mothers on leukemia were described through measures of mean, median , standard deviation and mean score percentage.

Section III: Descriptive analysis on the stress faced by mothers with leukemic children was through mean, median, standard deviation and means score percentage.

Section IV: Descriptive analysis regarding the coping strategies adapted by the mothers with leukemic children were carried out through the application of mean, median, standard deviation and mean score percentage.

Section V: Inferential statistics, especially Chi-square test is employed to bring out the association between the selected socio demographic variable such as age, education, occupation, income, number of children with the stress factors faced by mothers with leukemic children.

Section VI: Inferential statistics, especially Chi-square test is employed to bring out the association between the selected socio demographic variables such as age, education, occupation, income , number of children with the coping strategies adapted by the mothers with leukemic children.

Section VII: Compare the knowledge of mothers on leukemia with stress faced by the mothers and coping strategies adapted by the mothers with leukemic children.

RESULT

Assessment of the mothers knowledge regarding leukemia

Knowledge of mothers regarding leukemia was assessed by with semi-structured interview schedule. Each correct answer was given a score of one.

Table 1 Mean, Median, standard deviation and means score percentage of overall knowledge of mothers on leukemia

Variables	Maximum score	Mean	Median	SD	Mean score %
Knowledge	46	19.8	20	4.86	43

Table 1, depicts the overall mean knowledge score of mothers with Leukemic children regarding leukemia was 19.8 median was 20 with standard deviation of 25.31. the mean score percentage of mothers on leukemia is 43% with the maximum possible score 46.

Assessment on stress factors faced by mothers with leukemic children

Table2 Mean, median, standard deviation and mean score percentage of overall stressors faced by mothers with leukemic children.

Variables	Maximum possible score	Mean score	Median	Standard Deviation	Mean score %
Stress	102	73.32	73.5	6.01	71.8

Tabel 2, depicts that overall mean score of stress faced by the mothers with leukemic children was 73.32, median was 73.5 with standard deviation of 20.02 and the mean score percentage of stress faced by the mothers with leukemic children is 71.8 % with maximum possible score 102.

Table 3 Assessment of Coping Strategies adapted by the mothers with leukemic Children

S.No	Variables	Maximum Possible Score	Mean Score	Median	Standard Deviation	Mean Score%
1.	Coping strategies	34	20.4	20	2.68	60

Table 3, shows that overall mean score of coping strategies adapted by the mother with leukemic children was 20 with standard deviation of 2.68. The mean score percentage of coping strategies adapted by the mothers with leukemic children is 60% with maximum possible score. It was revealed that the mothers with leukemic children are having better coping strategies on meeting the stress about leukemia.

Table 4 Relationship between Knowledge, Stress and coping strategies of the mother with leukemic children

	Knowledge	Stress	coping strategies
Knowledge	1	0.19	0.99*
Stress	0.19	1	0.19
Coping	0.99**	0.19	1

Table 4 shows that there is significant relationship between knowledge and coping strategies. The higher the knowledge better will be cope up the child's condition. It is significant at P<0.05 level.

Major Findings Of The Study Are Summarized Below

Result of the study revealed that the mean score percentage of mothers knowledge regarding leukemic is 43%. Most of the mother had knowledge about treatment of leukemia.

Identification of specific stress faced by mother with leukemic children were physiological, psychological, sociological, economical, feeling of rejection and family related stress. The mean score percentage of stress faced by mothers with Leukemic children is 71.8%. The highest level of stress was economical stress.

Identification of coping strategies adapted by the mothers with leukemic children included physiological measures, problem solving measures, spiritual measures, relaxation techniques, exploration of moral support and economical measures. The mean score percentage of coping strategies adapted by the mothers with leukemic children is 60%. Reaction during the stress was the most common coping strategy used by the mothers with leukemic children.

Chi-square analysis shows that there is no significant relationship between socio demographic variables with stress faced by the mothers. And significant relationship between coping strategies adapted by the mothers with socio demographic variables such as mothers educational status, occupation and type of family.

There is high degree of significant positive correlation existing between mothers knowledge with coping strategies adapted by the mothers with leukemic children. And, there is low degree of significant positive correlation existing between mothers' knowledge and stress faced by the mothers.

DISCUSSION

In this study, the researcher had made an attempt to assess the mothers knowledge on leukemia, identify the stress faced by mothers and coping strategies adapted by the mothers with leukemic children. The findings of the study have been discussed under the following sections with reference to the objectives.

Section I - Socio demographic variables of mothers

Among the study group nearly half of them 47.5% are from the age group of 26-30 yrs , 30% are from the age group of 21-25 yrs. Majority of the subjects 72.5% are Hindus and 17.5% are Christians . Nearly half of the respondents 47.5% are illerates, 22.5% of the subjects have primary school education. Most of the respondents 70% are house wives, 17.5% are daily wages. Majority 57.5% of their family income is between Rs 3001-4000, 27.5% of their family income is above Rs.4001. A major proportion of 55% are from joint family, and among the subjects 52.5% them have two children.

Demographic variables of children

In the study group, 55% are from the age group of 3-5 years. Among the study group 62.5% are male children. Nearly half

of the children did not enter the school and 47.5% are above 3 months of hospitalization.

Section II: knowledge of mothers with Leukemic children regarding leukemia

The mean score percentage of knowledge of mothers with leukemic children regarding leukemia is 43%, this shows that most of the mothers knowledge is below the average score.

This evidentially support to conclude that mothers had less knowledge on leukemia. So this study highlights the scope for nurses to pay attention in providing knowledge to the mothers with leukemic children regarding leukemia.

This is supported by [patustea E.et al \(2003\)](#) study “parents knowledge about their child’s leukemia” where she identified that many parents had lack of knowledge about leukemia, but they have a high interest in learning more about it.

Section III. stress faced by the mothers with leukemic children

The mean score percentage, of stress faced by the mothers is 71.8% this shows most of the mothers stress level is above the average score.

This is supported by [A.E. Kazak’s \(1997\)](#) study on preventing stress during hospitalization of children, where it was found that 74% of parents had stress during their child’s hospitalization.

The present study is also supported by the study conducted by [Sharan P et al\(1995\)](#) “parental stress regarding their leukemic children” where among the samples studied , most of the subjects (83%) had emotional stress as the main problem for the mothers with leukemic children.

Section IV: coping strategies adapted by the mothers with leukemic children

The mean score percentage of coping strategies adapted by mothers is 60%, this shows that most of the mothers level of coping strategies is above the average level.

This is supported by the following studies, where [Kupst MJ .et al \(1995\)](#) in his study “parental coping with pediatric leukemia” stated that 86% of the parents had coped up well in childhood leukemia.

[Yeh CH.et al. \(2000\)](#) in his study “Adaptation process of parents with leukemic children” found that most of the mothers (89.9%) adapt to their child’s leukemia by a dynamic process. This study, the coping strategies influenced by mothers occupation, education and their type of family.

Section V: Association of stress with selected socio demographic variables

Chi-square analysis was applied to determine the association of stressful factors faced by mothers with selected socio

demographic variables such as age, education, occupation, number of children, type of family and income of the family. This study reveals that father’s educational status was significant over the stressors faced by the mothers with leukemic children.

Section VI: Association of coping strategies with selected socio demographic variables

Chi-square was applied to determine the relationship of the coping strategies adapted by the mothers with selected socio demographic variables. The study reveals that there is significant association between coping strategies adapted by the mothers and selected socio demographic variables. Mothers education, occupation and type of family are the significant over the coping strategies adapted by the mothers.

Section VII; Relationship between knowledge, Stress and coping strategies

Corelation coefficient was applied to determine the relationship of the knowledge, stress and coping strategies adapted by the mothers with leukemic children. The study shows there is significant association between mothers knowledge on leukemia and coping strategies adapted by the mothers.

CONCLUSION

Children are inheritance from god and they are most vulnerable group in the society, certain disease affect them and resulting increase morbidity and mortality. Mothers are usually the care providers to children especially the Indian mothers. Psychosocial problems faced by the mothers of children with any sort of illness. Especially the chronic illness. So, they need to adapt coping mechanism. The results indicate that the knowledge on leukemia is low, the mothers are having more stress during chronic illness of their children. There is a need to provide health education on leukemia and coping strategies for adapting the stressors faced by mothers with leukemic children.

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Reference

1. Betz sowden 2003 , “Pediatric nursing reference” 4th edition , Harcourt health science company , Missouri Pp.322-337
2. Darothy R morlow,*et al* 2004, “Text book of pediatric Nursing ”, 6 th edition ; W.B.Saunders’s company , Philadelphia; Pp.982-985
3. Dutta Tirthankar, 2005“ Principle of Pediatrics” Ist edition , New central book agency pvt.ltd , Calcutta, Pp;164-169

4. John Lilleyman 2002, Jan Hann and victor, "Pediatric Hematology" 2nd edition , churchil Livingston , Sydney ;P.p: 537-555
5. Mahajan.B.K. 2005 "Methods in Biostatistics" 5th edition , J.P Brothers , New Delhi , Pp:165-166
6. Polit D.F *et al* 2000 " Nursing Research" 5th edition , J.B.Lippincott company , Philadelphia, Pp:262-269
2. Agarwal B, *et al.*(2000) , "The challenge of childhood acute lymphoblastic leukemia" *Indian journal of hematology and blood transfusion* , Pp: 33-34.
3. Bevila Cana.G *et al.*(1985) Bone marrow necrosis and acute Lymphoid Leukemia" *American journal of Pediatric hematological oncology-* Pp:228-233.
4. Brown RT, *et al* (1992) "Psychiatric and family functioning in children with leukemia and their parents", *Journal of American Academic child adolescent psychiatry.* Pp:27-31
5. Holbrook CT *et al* (1978), Acute leukemia" *Journal of pediatrics*, Pp;126-128.

Journals

1. AbramvitZ, L.Z *et al* (1995) "Pediatric bone marrow transplantation UPDATE" *Oncology Nursing forum* 22(1), Pp:107 105.
5. Holbrook CT *et al* (1978), Acute leukemia" *Journal of pediatrics*, Pp;126-128.

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