Level of Depression among the Mothers of Children with Leukaemia Admitted in Gauhati Medical College and Hospital, Guwahati, Assam

* Dhanjita Deka

Abstract

A diagnosis of childhood cancer represents challenges for patients and family members. Mothers of children with cancer represent a group prone to high levels of emotional distress, and the period following their child's diagnosis and the initiation of treatment may be predominantly stressful and disturbing leading them to depression. The present study was carried out to assess the level of depression among the mothers of children with leukaemia admitted in Gauhati Medical College and Hospital, Guwahati, Assam. In this descriptive research study, 50 mothers of children with leukaemia were selected using convenient sampling technique and they were asked to take part in a structured interview schedule and their depression's score was measured using the Beck Depression Inventory (BDI-II). In the present study data were analysed using both descriptive and inferential statistics. The result of this study showed that majority 36% mothers of children with leukaemia have severe depression. There is no significant association between the level of depression and the demographic variables.

Key words: depression, leukaemia

Background

Currently depression is the leading cause of disability in the world and is predicted to become the second largest killer after heart disease by the year 2020 **(WHO, 2012)[1].** 80% of individual with depression report functional impairment while 27% report serious difficulties at work and home life **(CDC, NCHS, 2012)[2].** According to a study, conducted in 2011, India has the highest rate of depression (36%) and in low income countries with women being affected twice more than men **(Bromet E et al. 2011)[3].**

Any chronic illness might cause a heavy impact on family members. Several studies have shown that depressive disorders are more common among the parents of children with chronic disease than normal population.**(Raymond K M et al 1999; Rona RJ et al. 1998).[4]**

Need of the study and Literature Review

Cancer in children and adolescents is rare and biologically very different from cancer in adults **(Magrath I, 2013)[5].** In India, cancer is the 9th common cause of deaths among children between 5 to 14 years of age (Summary- Report on Causes of Death, 2013). The proportion of childhood cancers reported by Indian Cancer Registries varied from 0.8% to 5.8% in boys and from 0.5% to 3.4% in girls **(PBCR, 2013)[6]**

It has been long recognized that in the early months after diagnosis, the parents of children with cancer often suffer a variety of psychosocial symptoms. As a primary care provider mother's responsibility increases substantially starting a vicious cycle of anxiety and socio-economic uncertainty leading her to depression much more than the father.

In a similar study conducted in Turkey reported that 88% mothers were depressed. Mild depression was reported in 22.7 % and major depression in 61.5% **(Erkan S, 2009)[7]**

Ghufran et al (2014)[8] in a study in Pakistan reported that

* Vice Principal, CPMS School of Nursing, Guwahati, Assam. Mobile No. 08822233140. Email id: dekadhanjita123@gmail.co

the prevalence of depression in mothers was as high as 78%. Mild depression was seen in 69% of mothers, moderate in 25%, severe in 5% while 1% had very severe depression.

In a study conducted by **Dolgin et al. (2007)**[9] reported that 68% of mothers had moderate depression scores 6 months after their child's cancer diagnosis. Although not stated, this would be close to the beginning of the maintenance phase of treatment in many treatment centres. 50% of the children had either leukaemia or lymphoma.

Gogoi RR, Kumar R, Deuri SP in Assam in a study conclusively found out that the mothers of children with ID were having higher anxiety and depression than mothers with healthy children. The anxiety and depression had negative correlation with QOL of mothers of children with ID.[16]

There is importance of incorporating mothers into the treatment process during the diagnosis and treatment of their children with leukaemia. While caring for the child many a time the mother cannot cope with the distress related to the diagnosis and various treatment procedure of the child and become depressed. The investigator being in nursing profession felt the need to assess the level of depression of the mother caring for the sick child with leukaemia. Nursing personnel in the hospital setup can give the psychological support to the depressed mother to improve the quality of life of care giver.

Objectives

To assess the level of depression among the mothers of children with leukaemia admitted in Gauhati Medical College and Hospital, Guwahati, Assam.

To find out the association between the level of depression and the demographic variables.

Hypotheses

H01- There is no significant association between depression of the mothers and the demographic variables.

Research Methodology

Research approach and design: Descriptive research approach with survey design was adopted for the study as it was found to be most suitable for studying the problem under study.

Setting: The study was conducted in the haematology ward of Gauhati Medical College and Hospital, Guwahati, Assam after obtaining approval from the Institutional Ethical Committee.

Study population: The population considered for the study was- all the mothers of children with leukaemia between the ages of 3 to 15 years admitted in the haematology ward of Gauhati Medical College and Hospital, Guwahati, Assam.

Sample size: The sample size considered for the present study was 50 mothers and convenient sampling technique was used for selecting the sample from the study population.

Description of the tool: The instrument/tool for the present study consists of two parts Part I and Part II and administered at the same time.

Part- is the demographic data sheet that consists of a structured interview schedule comprising of 7 variables (i.e. age of the child, sex of the child, no. of children, education of the mother, occupation of the mother, family income and place of residence).

Part- I: To assess mothers' depressive symptoms the Beck Depression Inventory-II (BDI) was used. Beck Depression Inventory is the most frequently used screening instrument in research on depression. Beck Depression Inventory was first developed by A. T. Beck in 1961. The inventory was re-evaluated and revised in 1978 as a second form. The BDI total score correlates significantly with diagnoses of clinical depression (Shay NL, 2008; Archer RP, 2000)[10] and it has well-established psychometric properties in both psychiatric and non-psychiatric samples (Beck A. T 1996)[11].

Beck Depression Inventory is a quadruple likert-type scale consisting of 21 questions to measure the severity of symptoms associated with depression. Each question
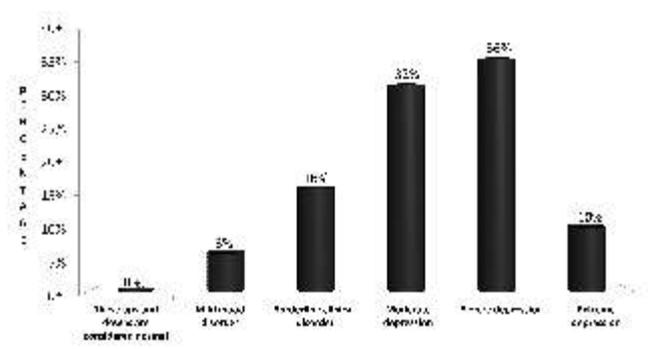
is scored between 0 and 3, and the total score range from 0 to 63. The cut-off score of the scale was determined as 17 in the Persian validity and reliability study. The scale was classified as follows: a score of 0-10 denoted these ups and down are considered normal, a score of 11-16 denoted mild mood disturbances, a score of 17-20 signified borderline clinical depression a score of 21 30 indicated moderate depression, a score of 31 40 denoted severe depression and a score of over 40 denoted extreme depression. The BDI has had high internal consistency, with alpha coefficients of 0.86 and 0.81 for psychiatric and non-psychiatric populations, respectively. **(Beck AT, 1961)**[12]

Findings

Section 1: Socio demographic data of the mothers:

The demographic information of mothers showed that most of the mothers (44%) have child from the age group of 9 to 15 years, majority of the mothers (66%) have male child having leukaemia, majority (46%) have 3 or more than 3 no. of children, most of the mothers (34%) educational level is high school pass, Majority of the mothers (96%) were house wife, majorities (64%) family income was < 10,000 per month and most of the mothers (86%) were from rural place of residence.

Section 2: Assessment of level of depression among the mothers of children with leukaemia

Fig. 01: Bar Diagram Showing level of depression among the mothers of children

The figure depicts that most of the mothers 18 (36%) of children with leukaemia have severe depression, 16 (32%) have moderate depression, 8 (16%) have borderline depression, 5 (10%) have extreme depression

and 3 (6%) have mild mood disorder.

Section 3: In the present study, the null hypothesis is rejected as no significant association was found between the level of depression and selected demographic variables of the sample.

Discussion

The diagnosis and subsequent treatment of childhood leukaemia is undeniably stressful for any family. A parent's ability to manage his or her distress during treatment of the child is vital as there may be potential impact on the well-being and long-term psychological adjustment of both parents and child.

Various studies have shown that mothers display symptoms such as hopelessness, despair, anger, stress, anxiety, and depression **(Elcigil A, Conk Z. (2010), Iqbal A, Siddiqui KS.2002)**[1314]

In the present study, most of the mothers (36%) of children with leukaemia have severe depression, (32%) have moderate depression, (16%) have borderline depression, (10%) have extreme depression and (6%) have mild mood disorder.

Similar findings was seen in a study conducted by **Ghufran et al 2014**[8] in Pakistan reported that the prevalence of depression in mothers was as high as 78%. Mild depression was seen in 69% of mothers, moderate in 25%, severe in 5% while 1% had very severe depression.

In another study in Pakistan, **Iqbal et al (2002)**[14] have reported more than 65% of mothers of children with leukemia were found to be depressed.

In the present study, there was no significant association between mother's depression level and demographic variables. Similarly, **(Erkan et al 2009)**[15] in a study examined to determine association between the level of depression and demographic information, but no significant association was found.

Conclusion

There is importance of incorporating mothers into the treatment process during the diagnosis and treatment of their children with leukaemia. This study concludes that a

majority of attending mothers of children with leukemia suffers from severe depression. This study results may be useful for health care professionals as part of the initial consultation when diagnosing childhood leukemia so as to prevent any potential negative impact of maternal depressive symptoms on child health outcomes. However, further well-designed study need to conduct on a large number of mothers or both parents in order to make any logical conclusions, and finding socioeconomic and related factors on mother's depression level.

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