

Mental Health Status of the Parents of Pediatric Cancer Patients

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ABSTRACT

Cancer remains a major health dilemma worldwide. The diagnosis of cancer in children imposes a great amount of stress on the family and particularly parents, affecting their mental health. General health of parents plays an important role in continuation of care for the sick child. This study sought to assess the mental health status of the parents of pediatric cancer patients. This descriptive cross-sectional study was conducted on 127 pediatric cancer patients hospitalized in Mofid and Imam Hossein Hospitals in Tehran (92 mothers and 35 fathers). Data were collected using the General Health Questionnaire-28 (GHQ-28) and analyzed with SPSS version 19. The results and the cut-off point of 24 showed that cancer in children affected the mental health of parents in physical symptoms, anxiety, depression and social function subscales. The mental health status of the mothers in physical symptoms, anxiety and depression subscales was significantly worse than that of the fathers ($P < 0.05$). The diagnosis of cancer in children significantly affects the mental health of parents and their ability to care for the sick child. Interventional strategies and counseling services for the parents can effectively promote their mental health and consequently improve the quality of care for their children.

Keywords: Pediatric cancer, Parental distress, Mental health, GHQ-28.

INTRODUCTION

Cancer is a major cause of morbidity and mortality worldwide. Although not common in children, cancer is an important cause of death in children younger than 14 years¹. The diagnosis of cancer in children imposes high levels of stress on the family and particularly parents and adversely affects their mental health status. Young age of patient, long treatment course and high cost of treatment can further add to the parental distress. General health of parents plays an important role in continuation of care for the sick child and the treatment follow up.

Grootenhuis et al, in their review study evaluated 83 articles since 1980 and concluded

that several factors such as child's age, distance from the hospital to the place of residence, financial status of the family and the husband and wife relationship significantly affected the stress of parents following the diagnosis of cancer in their children². Dockerty et al. evaluated 397 parents of children with cancer using GHQ-12 and compared their health status with that of the parents of healthy children. They concluded that the mental health level of parents of children with cancer was lower than that of the parents of healthy children³.

Anne et al. assessed 171 parents of pediatric cancer patients using Post Traumatic Stress Disorder Reaction Index (PTSD-RI) and showed that the diagnosis of cancer in children can result in development of PTSD symptoms in

parents and compromise their mental health⁴. Melanie et al. evaluated 23 fathers of children with cancer in comparison to a control group and showed that occurrence of cancer in children can impair the psychosocial function of fathers⁵. Vrijmoet-Wier Sma et al. reviewed 67 articles from 1997 to 2007 and concluded that the diagnosis of cancer in children causes great stress in parents. Some studies have reported higher level of stress in mothers than fathers⁶.

McCarthy et al. evaluated 143 parents of children with cancer using PAT 2.0 questionnaire and indicated that the diagnosis of cancer in children can cause great stress in parents⁷. Rosenberg et al. assessed 104 parents and reported psychological distress in a minimum of 50% of the parents of children with cancer. They used Kessler Scale-6 questionnaire⁸. Klassen et al. assessed 411 parents of children with cancer in Canada using the Quality of Life QOL(SF-36) questionnaire and showed that the quality of life of these parents was lower than that of the general population⁹.

Since the mental health of parents plays an important role in the continuation of care and follow up of treatment of cancer patients, this study sought to assess the mental health status of the parents of pediatric cancer patients to take a step

forward in promoting the general health of the community.

MATERIALS AND METHODS

This descriptive cross-sectional study was conducted on 127 parents of pediatric cancer patients hospitalized in Mofid and Imam Hossein Hospitals. A total of 92 mothers and 35 fathers participated in this study. One parent (mother or father) of each child was enrolled. Subjects were selected using convenience sampling during a two-month period. In other words, parents of all children with cancer hospitalized in the afore-mentioned two hospitals during July and August were entered in the study if they were willing to do so. The researcher thoroughly explained the study protocol to subjects and obtained written informed consent from the participants. The parents were then asked to fill out the questionnaire. Those not willing to participate and subjects with level of education below middle school (since they were not able to fill out the questionnaire) were not included.

The pediatric cancer patients were between one and 14 years and were diagnosed with cancer by a pediatric oncologist. The sick children were hospitalized in the ward when the questionnaire was filled out by the parents. Data were collected using a questionnaire. The first part

Table 1: Mental health status of the mothers in four subscales of GHQ-28

Status	Depression		Social function		Somatic symptoms		Anxiety	
	Num ber	Perce ntage	Num ber	Perce ntage	Num ber	Perce ntage	Num ber	Perce ntage
Acceptable	84	91	91	98.9	83	90.2	70	76.1
Unacceptable	8	9	1	1.1	9	9.8	22	23.9

Table 2: Mental health status of fathers in four subscales of GHQ-28

Status	Depression		Social function		Somatic symptoms		Anxiety	
	Num ber	Perce ntage	Num ber	Perce ntage	Num ber	Perce ntage	Num ber	Perce ntage
Acceptable	35	100	34	97.1	34	97.1	29	82.9
Unacceptable	0	0	1	2.9	1	2.9	6	17.1

of the questionnaire asked for sociodemographic information of subjects. The second part included General Health Questionnaire – 28 items(GHQ-28)questions, which are used for assessment of the mental health status of the parents of children with cancer. The GHQ-28 was designed by Goldberg in 1972;itassesses physical symptoms, anxiety, depression and social function domains. This questionnaire is available in 12-, 28-, 30- and 60-question forms. The 28-question form is more commonly used and has a sensitivity of 84 and specificity of 82 according to a previous study(10). Scoring of this questionnaire can be done by four methods:

1. C-GHQ scoring
2. Modified Likert
3. Likert scoring
4. GHQ scoring

In the current study, 0-3 point Likert scale was used. The highest score obtained was 84. Lower scores indicated better health. The cut-off point using this questionnaire was found to be 24 in a study by Noorbala et al, on the Iranian subjects over 15 years using the Likert scale¹¹. The collected data were analyzed using SPSS version 19. The results were double-checked and Pd^o0.05 was considered statistically significant.

RESULTS

A total of 127 parents including 92 (72.5%) mothers and 35 (27.5%) fathers were evaluated. The mean age was 31.9 years in mothers and 39.2 years in fathers. In 43.3%, the sick child was the only child of the family. Considering the cut-off point of 24, participants were assessed in four subscales

Table 3: Frequency distribution of the mental health scores of the mothers and fathers

	Presence of mental health disorder	Absence of mental health disorder
Mothers	47.8%	52.2%
Fathers	25.7%	74.3%
Total	41.7%	58.3%

P=0.04

of physical symptoms, anxiety, depression and social function. For each subscale, scores of 24 and higher indicated mental health disorders. Mental health status of the parents with respect to the GHQ-28 subscales is shown in Tables 1 and 2.

As seen, mental health status of the mothers in three subscales of anxiety, somatic symptoms and depression was worse than that of the fathers. In assessment of the general mental health status of the parents considering the cut-off point of 24, 41.7% of the parents were found to have impaired mental health. The frequency distribution of the mental health scores of the mothers and fathers is presented in Table 3.

DISCUSSION

In our study, the mental health status of the mothers in anxiety, depression and somatic symptom subscales was worse than that of the fathers. A study conducted on 300 couples in Jordan having children with cancer reported results similar to ours and showed that the level of stress in mothers of children with cancer was higher than that in fathers. The afore-mentioned study had a control group and used QOL questionnaire to assess the level of stress¹². However, in a study by Reinfjell et al, on parents of 40 children with cancer, the mental health status of the fathers in anxiety and depression subscales was found to be worse than that of the mothers, which is different from our findings. They used GHQ to collect data in their study¹³.

Despite all the above, a consensus has been reached that cancer in children impairs the mental health of parents and this impairment can adversely affect the quality of care provided by parents. Availability of mental health counseling services can improve the mental health status of the parents and consequently the quality of care for their children.

Lichtenthal et al. assessed 120 parents of children with cancer after six months and six years of the death of their children and showed that mental health counseling services and easy accessibility of such services significantly decreased the level of stress of parents¹⁴. The authors concluded that

mental health services for the parents must be provided as part of the treatment package for children with cancer. These services should be preferably provided in the oncology wards. Future

studies are recommended to propose psychological interventions and counseling strategies for parents of children with cancer.

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