

Anxiety, social dysfunction and coping strategies among mothers of children with cancer

Hind Tasjeel Abass, Ph.D* Salma. K. Jihad**

ABSTRACT

Background: Mothers of children with cancer often experience heightened levels of anxiety due to the emotional distress and uncertainty associated with their child's illness.

Objective: The study investigate the association between anxiety, social dysfunction and coping strategies among mothers of children with cancer.

Materials and Methods: A Correlational study was undertaken at the Middle Euphrates Cancer Center in Al-Najaf Al Ashraf Governorate from July 31th, 2022, to September 28th, 2023. The questionnaire's validity was ensured through expert consultation, and its reliability was established through a preliminary pilot study. Data were collected by structured interviews using the questionnaire and subjected to thorough analysis employing both descriptive and inferential statistical methods.

Results: A study found that the mothers with children diagnosed with cancer face psychological challenges. About 70.6% experience high anxiety, 65.7% have social difficulties, and 58.8% use ineffective coping strategies. The study also showed a significant association between coping effectiveness and reduced anxiety ($r = -.466$; $p < 0.001$) and better social functioning ($r = -.681$; $p < 0.001$).

Conclusions: The study shows that the mothers of children with cancer face anxiety, struggle socially, and use ineffective coping methods. Using effective coping methods can reduce anxiety and improve social well-being. To help these mothers, targeted interventions and support services are necessary, emphasizing the importance of coping strategies.

Keywords: Anxiety, Coping Strategies, Mothers, Children with Cancer.

INTRODUCTION

Childhood cancer is a devastating diagnosis that profoundly affects not only the afflicted child but also their immediate family, particularly mothers who often assume the role of primary caregivers⁽¹⁾. This emotional and practical burden can lead to significant psychological distress among mothers of children with cancer⁽²⁾. Anxiety is a prevalent emotional response among mothers facing the distressing circumstances of a child's cancer diagnosis. Studies demonstrated elevated levels of anxiety in mothers of pediatric cancer patients⁽³⁾. The uncertainty of the disease trajectory, the burden of medical appointments and treatments, and the fear of adverse outcomes all contribute to heightened anxiety levels among these mothers. As a result, maternal anxiety is often a central concern in pediatric oncology, impacting the mental health and overall functioning of mothers⁽⁴⁾.

Social dysfunction, or impaired social functioning, is another critical aspect of maternal experiences in the context of childhood cancer. Mothers of children with cancer often face disruptions in their social relationships and roles⁽⁵⁾. Research indicated that these mothers may withdraw from social activities and experience strained relationships due to the all-consuming demands of caregiving and the emotional distress related to their child's condition. Such social dysfunction can further exacerbate feelings of isolation and distress, contributing to a cycle of heightened anxiety⁽⁶⁾.

Coping strategies represent a critical mediator in the relationship between anxiety and social dysfunction among mothers of children with cancer. Mothers employ various coping mechanisms to manage the emotional challenges associated with their child's diagnosis⁽⁷⁾. The effectiveness of these coping strategies can influence both maternal anxiety and social functioning. Adaptive coping strategies, such as seeking social support and problem-solving, are associated with reduced anxiety and better social functioning. In contrast, maladaptive coping strategies, like avoidance or denial, can exacerbate anxiety and hinder social interactions^(8,9). The intersection of anxiety, social dysfunction, and coping strategies in mothers of children with cancer underscores the need for comprehensive psychosocial support within pediatric oncology care. By understanding these interrelated factors, healthcare professionals, psychologists, and support organizations can develop targeted interventions to help mothers navigate the emotional challenges, enhance their social connections, and promote adaptive coping strategies. Such interventions are crucial in improving the overall well-being of mothers and, by extension, the resilience and recovery of children facing the ordeal of cancer. In this context, this paper explores the intricate association between anxiety, social dysfunction, and coping strategies among mothers of children with cancer, shedding light on the factors that contribute to their psychological well-being and offering insights into potential interventions for enhanced support and care.

* Family and Community Nursing Department
Ministry of Health/ Babylon Health Directorate, Iraq.
E-mail: hindalfatlawy@gmail.com

** Community Nursing Department, College of Nursing
University of Babylon, Iraq.
E-mail: nur.salma.kadhim@uobabylon.edu.iq

MATERIALS AND METHODS

Study Design: This descriptive correlational study was conducted at the Middle Euphrates Cancer Center in Al-Najaf Al Ashraf Governorate between July 31th, 2022, to September 28th, 2023. A non-probability sampling approach was employed, resulting in a total sample size of 102 mothers with cancer child's who attended the Middle Euphrates Cancer Center.

Study Instrument include Patient Characteristics: This section collected information on mothers age, social status, education level, occupation, monthly income, family type, residents and number of children, Anxiety and social function scale: After a thorough review of psychological literature and previous research, we decided to adopt and adapt the General Health Questionnaire to assess various dimensions of psychological well-being⁽¹⁰⁾. The questionnaire demonstrated high reliability, with a Cronbach's Alpha coefficient of 0.83 and Coping Strategies: the development of a modified scale based on a review of existing literature and prior research. The modified scale is called the Coping Health Inventory for Parents (CHIP Scale). The questionnaire demonstrated high reliability, with a Cronbach's Alpha coefficient of 0.91. The researcher conducted individual interviews with participants, providing clear instructions and addressing any questions or concerns. Participants were encouraged to participate and thanked for their cooperation. Each interview lasted approximately 20-25 minutes, following a structured approach tailored to the study design. IBM SPSS 20.0 was employed for data analysis. Categorical variables were summarized using numbers and percentages, while continuous variables were described using mean and standard deviation. The Shapiro-Wilk test was used to assess data normality. To investigate the correlation between study variables, Person's correlation were employed. Statistical significance was defined as a two-tailed p-value of less than 0.05.

Ethical Approval

The study was conducted in accordance with the ethical principles that have their origin in the Declaration of Helsinki. It was carried out with patients verbal and analytical approval before sample was taken. The study protocol and the subject information and consent form were reviewed and approved by a local ethics committee according to the document number 511 (June 11th, 2023) to get this approval.

RESULTS

Table 1. Distribution of Studied Sample related to their Socio-demographic Data

Socio-demographic data	Classification	n	%
Age/years	Min.- Max.= 25-47 years Mean± SD= 37.24 ± 5.53		
Marital status			
Married		89	87.3
Divorced		8	7.8
Widowed		1	1.0
Separated		4	3.9
Education level			
Primary school		30	29.4
Middle school		25	24.5
Secondary school		19	18.6
Institute		23	22.5

College and above	5	4.9
Occupation		
Employee	24	23.5
Self-employ	22	21.6
Housewife	56	54.9
Monthly income		
Enough	10	9.8
Some limit enough	40	39.2
Mot enough	52	51.0
Family type		
Nuclear	57	55.9
Extended	45	44.1
Residents		
Urban	56	54.9
Rural	46	45.1
Number of children		
1 child	18	17.6
2 children	24	23.5
>2 children	60	58.8

n. Number; %= Percentage

Table (1) summarizes socio-demographic characteristics of mothers caring for children with cancer. There were 102 participants in the study, with ages ranging from 25 to 47 years and an average age of 37.24 ± 5.53. Most mothers (87.3%) were married and living with their husbands. About 29.4% had only completed primary school education. A majority (54.9%) identified as housewives, and 51.0% reported inadequate monthly income. Family types were primarily nuclear (55.9%) versus extended (44.1%), and urban residents accounted for 54.9%, while rural residents made up 45.1%. Additionally, 58.8% of the mothers had more than two children.

Table 2. Overall anxiety ,social dysfunction among Mothers of Cancer Children

	Min.	Max.	M	SD	Score	n	%
Anxiety (7 Q)	8	21	17.74	3.94	Low (7-11.66)	10	9.8
					Moderate (11.67-16.33)	20	19.6
					High (16.34-21)	72	70.6
Social Dysfunction (7 Q)	10	20	17.46	3.41	Low (7-11.66)	10	9.8
					Moderate (11.67-16.33)	25	24.5
					High (16.34-21)	67	65.7
Overall Coping Strategies (41 Q)	48	115	67.58	19.38	Low (41-68.33)	60	58.8
					Moderate (68.34-95.66)	30	29.4
					High (95.67-123)	12	11.8

Table (2) indicate that a significant portion of these mothers are experiencing various psychological challenges. Specifically, 70.6% of mothers expressed a heightened level of anxiety, as indicated by their average scores (17.74±3.94). Additionally, in terms of social functioning, 65.7% of mothers reported a high level of dysfunction, with average scores of (17.46±3.41). Overall, 58.8% of mothers with children battling cancer reported employing coping strategies with a relatively low level of effectiveness, as evidenced by their average scores (67.58±19.38).

Table 3. Association between anxiety, social dysfunction and coping strategies

		Coping Strategies	Anxiety	Social function
Coping Strategies	Pearson Correlation	1	-.466**	-.681**
	Sig. (2-tailed)		.000	.000
Anxiety	Pearson Correlation	-.466**	1	.544**
	Sig. (2-tailed)	.000		.000
Social function	Pearson Correlation	-.681**	.544**	1
	Sig. (2-tailed)	.000	.000	

** . Correlation is significant at the 0.01 level (2-tailed).

The findings clearly reveal a statistically significant (inverse) correlation between the coping strategies employed by mothers of children diagnosed with cancer and their levels of anxiety ($r = -.466$; $p < 0.001$) as well as their social functioning ($r = -.681$; $p < 0.001$).

DISCUSSION

The findings presented suggest that a considerable proportion of mothers with children battling cancer are grappling with various psychological challenges. These challenges manifest in the form of heightened anxiety, impaired social functioning, and the use of relatively ineffective coping strategies.

1. Heightened Anxiety:

The study reports that a substantial 70.6% of the mothers in the sample expressed elevated levels of anxiety, with an average score of 17.74 ± 3.94 . This finding underscores the emotional toll that a child's cancer diagnosis can take on mothers. The result aligns with existing research studies that highlights the prevalence of anxiety among parents of children with chronic illnesses [11-13]. This heightened anxiety is not surprising, as caring for a child with a severe medical condition can be emotionally distressing and overwhelming.

2. Impaired Social Functioning:

In terms of social functioning, 65.7% of the mothers reported a high level of dysfunction, with average scores of 17.46 ± 3.41 . This outcome emphasizes the significant impact that a child's illness can have on a mother's ability to engage in social activities and maintain a healthy social life. The findings are consistent with research studies that has demonstrated the social isolation and strain experienced by parents of children with cancer [14, 15]. The stressors associated with caregiving may lead to social withdrawal and an inability to maintain relationships, which is reflected in these results.

3. Ineffective Coping Strategies:

The study further reveals that 58.8% of mothers reported employing coping strategies with a relatively low level of effectiveness, as evidenced by their average scores of 67.58 ± 19.38 . This finding suggests that many mothers may not be effectively managing the stress and challenges associated with their child's cancer diagnosis. Ineffective coping strategies may lead to increased psychological distress and can have long-term consequences for the mother's well-being. This is consistent with research studies that highlights the importance of effective coping strategies for parents of children with chronic illnesses [16, 17]. Inadequate coping mechanisms can contribute to increased anxiety and reduced overall quality of life.

The presented findings indicate that a significant number of mothers of children with cancer are experiencing heightened anxiety, impaired social functioning, and are employing ineffective coping strategies. These results highlight the need for targeted interventions and support services to help these mothers better cope with the emotional and social challenges they face in the context of their child's illness.

4. Coping Strategies and Anxiety:

The reported correlation coefficient ($r = -.466$; $p < 0.001$) suggests a significant negative relationship between the coping strategies adopted by mothers and their anxiety levels. This is consistent with existing literature on coping and psychological well-being. Coping strategies are often used by individuals to manage stress, and their effectiveness can influence anxiety levels. For instance, a recent studies find that negative correlation between coping strategies adopted by mothers and their anxiety levels and emphasizes the importance of problem-focused coping strategies in reducing anxiety [18, 19].

5. Coping Strategies and Social Functioning:

The second correlation you've mentioned ($r = -.681$; $p < 0.001$) reveals a stronger negative association between coping strategies and social functioning. This implies that as mothers use more effective coping strategies, their social functioning tends to improve. This finding aligns with the broader literature on the impact of coping strategies on social well-being. It is noted that effective coping can lead to better interpersonal relationships and social adaptation [20, 21].

6. Significance of the Inverse Correlation:

The negative correlation, in both cases, signifies that as the mothers' coping strategies become more effective, their anxiety levels decrease, and their social functioning improves. This is a crucial finding, especially in the context of mothers dealing with the stress and emotional challenges of having a child diagnosed with cancer. It underscores the importance of developing and implementing effective coping strategies to support the well-being of these mothers. Understanding the relationship between coping strategies, anxiety, and social functioning in mothers of children with cancer has significant implications for healthcare professionals and support organizations. It suggests that interventions aimed at enhancing coping skills, such as problem-solving, emotional expression, or seeking social support, could potentially lead to a reduction in anxiety and an improvement in social functioning. This could positively impact not only the mothers but also their families as a whole.

CONCLUSION

The study highlights that a significant number of mothers of children with cancer experience heightened anxiety, impaired social functioning, and employ ineffective coping strategies, with coping strategies showing a significant negative relationship with anxiety levels and social functioning. To address these challenges, it is essential to implement targeted interventions and support services to help these mothers better manage the emotional and social aspects of their child's illness, emphasizing the importance of effective coping strategies in reducing anxiety and improving social functioning.

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