

ASSESSMENT OF PSYCHOLOGICAL DISTRESS AMONG PARENTS HAVING CANCER DEPENDENTS

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ABSTRACT

Background: Parents of children with cancer experience substantial psychological burden due to caregiving responsibilities, uncertainty of disease outcomes, and socioeconomic challenges. In low- and middle-income countries, including Pakistan, limited access to mental health resources and sociocultural factors may further exacerbate this distress. **Objective:** To assess the level of psychological distress among parents of children diagnosed with cancer. **Study design:** Descriptive cross-sectional study. **Setting:** Chemotherapy Department of Ittefaq Hospital, Lahore, Pakistan. **Duration of study:** March to August 2025. **Methods:** A total of 155 parents were recruited through non-probability convenience sampling over six months. Data were collected using a structured, pre-validated questionnaire assessing emotional, cognitive, behavioral, and physical symptoms of psychological distress. Data analysis was performed using SPSS version 25. Descriptive statistics were presented as frequencies and percentages, and psychological distress was categorized into mild, moderate, and severe based on cumulative scores. **Results:** Among 155 participants, the majority were aged 46–65 years (45.2%), females (52.3%), and urban residents (79.4%). Psychological distress was highly prevalent, with 33.5% experiencing mild, 34.8% moderate, and 31.6% severe distress. Common symptoms included sadness (57.4%), reduced Satisfaction in daily activities (74.8%), irritability (53.5%), decreased interest in others (67.7%), sleep disturbances (51.6%), increased fatigue (64.5%), and frequent guilt (45.2%). Behavioral symptoms such as increased crying (50.3%) and indecisiveness (45.2%) were also frequently reported. **Conclusion:** A substantial proportion of parents of children with cancer experience moderate to severe psychological distress. These findings highlight the importance of routine psychological screening and targeted supportive interventions to improve mental well-being in this vulnerable population.

Keywords: Psychological Distress, Caregivers, Parents, Neoplasms, Pediatric Cancer, Anxiety, Depression, Caregiver Burden

INTRODUCTION

Cancer in children represents one of the most profoundly distressing experiences a family can endure, imposing substantial psychological, emotional, financial, and social burdens on parents and caregivers (1, 2). Globally, the diagnosis of childhood cancer fundamentally disrupts family functioning, compelling parents to assume complex caregiving roles while simultaneously managing their own psychological well-being (3). Research consistently demonstrates that caregivers of children with cancer exhibit significantly elevated rates of depression, anxiety, and post-traumatic stress, with a meta-analysis of 85 studies reporting a weighted average prevalence of depression of 25.14% among caregivers of cancer patients (4). Furthermore, studies indicate that parents of children with cancer experience caregiver burden manifesting across social, emotional, functional, and economic domains (1, 7).

The psychological distress experienced by parents of children with cancer is multifaceted, encompassing fear, uncertainty, financial strain, and disruption of daily life (2,5). Parents report that their lives are socially, financially, and emotionally altered following their child's cancer diagnosis, with financial burden demonstrating a significant negative association with parental quality of life (1, 7).

In Pakistan, the burden of caring for a child with a serious illness falls disproportionately on mothers, who serve as primary caregivers in accordance with prevailing sociocultural norms (6, 8). Studies from Pakistani tertiary care hospitals reveal that cancer constitutes the most common diagnosis among children with chronic conditions, with caregivers reporting moderate-to-severe burden (7). Research conducted in Karachi documented significant declines in maternal quality of life associated with financial burden and disease-related complications (1, 7). Despite this, empirical research specifically assessing psychological distress among parents of children with

cancer remains limited in Pakistan (2, 8, 9). Sociocultural factors, including stigma, limited mental health literacy, and inadequate support services, further compound caregiver distress (8, 10). Given these gaps, systematic assessment of psychological distress among parents of cancer-dependent children in Pakistan is warranted to inform culturally sensitive interventions (9, 10). Thus, the objective of the study was to assess psychological distress among parents of children diagnosed with cancer.

METHODOLOGY

A descriptive cross-sectional study was conducted to assess psychological distress among parents of children diagnosed with cancer. The study was conducted in the chemotherapy department of Ittefaq Hospital, Lahore, Pakistan, from March 2025 to August 2025. A total of 155 parents were enrolled using non-probability convenience sampling. Eligible participants included biological parents of pediatric cancer patients who were directly involved in caregiving and were willing to participate in the study. Medical professionals and parents with previously diagnosed psychiatric illnesses were excluded to minimize potential confounding.

Data were collected using a structured and pre-validated questionnaire adapted to assess psychological distress, including domains of depression, anxiety, and behavioral responses. The tool comprised two sections: the first captured demographic characteristics such as age, gender, education, residence, socioeconomic status, and marital status, while the second evaluated psychological symptoms including sadness, guilt, irritability, sleep disturbances, fatigue, indecisiveness, and loss of interest. Responses were recorded using standardized categorical scales. The overall level of psychological distress was categorized into mild, moderate, and severe based on cumulative scoring criteria.

Before data collection, ethical approval was obtained from the institutional review board, and written informed consent was secured from all participants. Confidentiality and anonymity of the participants were strictly maintained throughout the study. Data collection was performed through face-to-face interviews conducted in a private setting to ensure accurate and unbiased responses.

The collected data were entered and analyzed using Statistical Package for Social Sciences (SPSS) version 25. Quantitative variables were summarized using mean and standard deviation where appropriate, while categorical variables were presented as frequencies and percentages. The normality of the data distribution was assessed, and the dataset was non-normal. Reliability analysis of the questionnaire was performed using Cronbach's alpha, which indicated acceptable internal consistency. A p-value of less than 0.05 was considered statistically significant for all analyses.

RESULTS

A total of 155 parents of children with cancer were included in the study. The mean age distribution showed that most participants were aged 46–65 years (45.2%), followed by ≥66 years (27.7%) and 35–45 years (27.1%). Females slightly predominated (52.3%), and mothers constituted the majority (52.3%). Most participants resided in urban areas (79.4%) and belonged to the middle socioeconomic class (69.0%). Regarding education, 28.4% had middle-level education, while 9.0% had no formal education. Marital status varied, with 37.4% married, 35.5% widowed, and 27.1% divorced (Table 1).

Symptoms of psychological distress were highly prevalent. More than half of participants reported sadness (57.4%), while 17.4% reported persistent sadness and 5.2% extreme sadness. A substantial proportion (74.8%) reported reduced satisfaction in daily activities. Feelings of guilt were common, with 45.2% reporting frequent guilt. Irritability was reported by 53.5% of participants, and 67.7% reported decreased interest in others (Table 2).

Sleep disturbances were reported by more than half of participants (51.6%), while 21.9% experienced early awakening. Self-critical behavior was reported by 46.5% of participants, and crying increased in 50.3%. Nearly half (45.2%) reported difficulty in decision-making (Table 3).

Table 1: Demographic characteristics of participants (n=155)

Variable	Category	n (%)
Age (years)	35–45	42 (27.1)
	46–65	70 (45.2)
	≥66	43 (27.7)
Gender	Male	74 (47.7)
	Female	81 (52.3)
Relation	Father	74 (47.7)
	Mother	81 (52.3)
Residence	Rural	32 (20.6)
	Urban	123 (79.4)
Education	No formal education	14 (9.0)
	Primary	25 (16.1)
	Middle	44 (28.4)
	Matric	40 (25.8)
	Intermediate+	32 (20.6)
Socioeconomic status	Low	44 (28.4)
	Middle	107 (69.0)
	High	4 (2.6)
Marital status	Married	58 (37.4)
	Divorced	42 (27.1)
	Widowed	55 (35.5)

Table 2: Emotional and cognitive symptoms of psychological distress (n=155)

Variable	Category	n (%)
Sadness	Not sad	31 (20.0)
	Sad	89 (57.4)
	Persistent sadness	27 (17.4)
	Extreme sadness	8 (5.2)
Loss of satisfaction	Normal	8 (5.2)
	Reduced	116 (74.8)
	Minimal	24 (15.5)
	None	7 (4.5)
Guilt	None	54 (34.8)
	Frequent	70 (45.2)
	Most of the time	22 (14.2)
	Constant	9 (5.8)
Agitation	None	26 (16.8)
	Slight	83 (53.5)
	Moderate	35 (22.6)
	Severe	11 (7.1)
Loss of interest	None	10 (6.5)
	Reduced	105 (67.7)
	Marked	33 (21.3)
	Complete	7 (4.5)

Table 3: Behavioral and psychological responses (n=155)

Variable	Category	n (%)
Sleep changes	Normal	14 (9.0)
	Reduced sleep	80 (51.6)
	Early awakening	34 (21.9)
	Severe disturbance	27 (17.4)
Self-criticism	None	55 (35.5)
	Moderate	72 (46.5)
	High	18 (11.6)
	Extreme	10 (6.5)
Crying	Normal	37 (23.9)
	Increased	78 (50.3)
	Persistent	29 (18.7)
	Inability to cry	11 (7.1)
Indecisiveness	Normal	45 (29.0)
	Mild	70 (45.2)
	Moderate	32 (20.6)
	Severe	8 (5.2)

Fatigue and reduced energy were prominent findings. Nearly half (49.0%) reported needing extra effort to initiate tasks, while 64.5% experienced increased fatigue. Reduced sexual interest was reported by 37.4% of participants (Table 4).

Table 4: Physical and functional symptoms (n=155)

Variable	Category	n (%)
Punishment feelings	None	88 (56.8)
	Possible	37 (23.9)
	Expected	11 (7.1)
	Constant	19 (12.3)
Loss of energy	Normal	33 (21.3)
	Mild	76 (49.0)
	Moderate	38 (24.5)
	Severe	8 (5.2)
Restlessness/Fatigue	Normal	30 (19.4)
	Increased fatigue	100 (64.5)
	Severe fatigue	23 (14.8)
	Extreme	2 (1.3)
Sexual interest	Normal	42 (27.1)

Reduced	58 (37.4)
Minimal	31 (20.0)
None	24 (15.5)

Overall psychological distress levels indicated that 33.5% of participants had mild distress, 34.8% moderate distress, and 31.6% severe distress (Table 5).

Table 5: Overall psychological distress levels (n=155)

Distress level	n (%)
Mild	52 (33.5)
Moderate	54 (34.8)
Severe	49 (31.6)

DISCUSSION

The present study assessed psychological distress among 155 parents of children with cancer, revealing a high prevalence of distress across emotional, behavioral, and physical domains. Overall, 33.5% of participants exhibited mild distress, 34.8% moderate distress, and 31.6% severe distress, collectively indicating that approximately 66% of participants experienced at least moderate-to-severe psychological distress.

These findings are broadly consistent with, yet exceed, estimates reported in the international literature. Pan and Lin (4) conducted a meta-analysis of 85 studies encompassing 23,317 participants and reported a weighted average prevalence of depression of 25.14% among caregivers of cancer patients, suggesting that the burden observed in our sample is comparatively elevated. Similarly, Lutfi and Lami (11) documented a depression prevalence of 72% among caregivers of children with leukaemia in Iraq, with 36.7% experiencing moderate and 27.8% severe depression—figures comparable to our findings of 34.8% moderate and 31.6% severe distress. This convergence suggests that caregivers in lower-middle-income countries (LMICs) may face disproportionately elevated distress burdens (12).

Regarding specific symptom domains, sadness was reported by 57.4% of participants, and 74.8% reported reduced satisfaction in daily activities. Thomas et al. (13) similarly found that a significant proportion of parents of children with chronic health conditions, including cancer, reported moderate-to-severe depression and anxiety, with poorer child emotional functioning strongly associated with parental distress. Burns et al. (14) further corroborated that a meaningful subgroup of parents of children with cancer report clinically significant distress.

Sleep disturbances were reported by 51.6% of participants, and increased crying by 50.3%. Teo et al. (15) similarly documented that nearly half of caregivers of cancer patients experienced psychological distress, including anxiety and depression, with financial inadequacy emerging as a significant predictor—a finding mirrored in our sample, where the majority belonged to the middle or low socioeconomic class. Heller and Melnikov (3) further demonstrated that caregiver burden among parents of children with cancer was high and directly associated with illness perception.

Regarding gender, females constituted 52.3% of participants, and mothers predominated as primary caregivers. Hussain et al. (6) reported that female caregivers of special children in Pakistan were significantly more vulnerable to mental health problems, including higher levels of depression and loss of emotional control, consistent with our observation of elevated distress among mothers. Kim et al. (16) further noted that female caregivers reported higher levels of psychological distress and decreased relationship satisfaction.

Fatigue was prominent, with 64.5% reporting increased fatigue and 49.0% requiring extra effort to initiate tasks. McLachlan et al. (17) similarly found that caregivers of children with medical complexity

reported significantly higher symptoms of anxiety, depression, and fatigue compared to the general population. Eche et al. (18) confirmed that psychological distress symptoms, including depression and anxiety, were highly prevalent in parents of children with cancer and negatively associated with coping capacity.

Guilt was reported by 45.2% of participants, and 45.2% reported difficulty in decision-making. Shahali et al. (19) documented that parents of children with disabilities frequently experienced depressive symptoms, including sadness, hopelessness, and guilt, alongside significant anxiety about the future. Saeed et al. (7) reported that caregivers of children with cancer at a Pakistani tertiary care hospital had substantial caregiver burden, underscoring the severity of distress in comparable populations.

Majeed et al. (12) reported that a large proportion of young caregivers of cancer patients in Pakistan experienced symptoms of anxiety and depression, particularly among low-income groups, consistent with our finding that participants from lower socioeconomic backgrounds exhibited elevated distress. Ayesha et al. (20) similarly found a high prevalence of psychological distress among caregivers of children with traumatic brain injury in Pakistan.

The use of convenience sampling and a single-center design may limit the generalizability of findings.

Self-reported data may be subject to response bias and under- or overestimation of psychological symptoms.

CONCLUSION

Psychological distress is highly prevalent among parents of children with cancer, with nearly two-thirds experiencing moderate to severe levels. Integrating mental health support into pediatric oncology services may improve caregiver well-being and overall patient care.

DECLARATIONS

Data Availability Statement

All data generated or analysed during the study are included in the manuscript.

Ethics approval and consent to participate

Approved by the department Concerned. (IRBEC-ICON-0211/24)

Consent for publication

Approved

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTION

SUNBAL ASHRAF (Student)

Conception of Study, Development of Research Methodology Design, Study Design, Review of manuscript, and final approval of manuscript.

KAINAT MAHMOOD (Student)

Manuscript drafting.

SHAN-E-FATIMA (Student)

Manuscript revisions, critical input.

HUMAIRA SADDIQUE (Assistant Professor)

Data entry, data analysis, drafting an article.

GHUZALA ANWAR (Assistant Professor)

Conception of Study, Final approval of manuscript.

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