

## Original Article

# Perceived Social Support and Mental Health among Caregivers of Patients with Chronic Illnesses in Pediatric Departments: An Observational Study

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### Abstract

**Objective:** The objective of the study was to assess the perceived social support and mental health of care givers of children suffering from chronic medical conditions.

**Methodology:** The research design of current study was cross-sectional in nature. Data was collected from Pediatric Departments of one public and one private sector hospitals. Sampling technique was purposive sampling comprising of 151 mothers of children with chronic medical conditions. For assessment purpose demographic form, Depression Anxiety Stress Scale (DASS-21) for evaluation of general mental health and Multidimensional Scale of Perceived Social Support Scale (MSPSS) for assessment of perceived social support were used. P value  $\leq 0.05$  was considered as significant.

**Results:** Regression analysis showed social support measured by MSPSS to be a significant predictor of stress ( $p < 0.000$ ), anxiety ( $p < 0.000$ ) and depression ( $p < 0.000$ ) in mothers of children with chronic illnesses which were inpatients in pediatric departments.

**Conclusion:** In conclusion, the mental health of mothers taking care of their children who were suffering from chronic illnesses in the pediatric departments was influenced by various factors, with perceived social support playing a pivotal role in the current study.

**Keywords:** caregivers, social support, mental health, pediatric department.

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### Introduction

Chronic illness is a condition that affect daily functioning of an individual for at least three months in a year and that illness will necessitate hospitalization for some individuals for at least one month in a year.

Chronic diseases seen in children and adolescents comprised of prevalent medical conditions like cerebral palsy, blood diseases like thalassemia, leukemia, epilepsy, chronic renal diseases, diabetes mellitus, chronic respiratory diseases, hemophilia, tetralogy of fallot, cancers etc.<sup>1-3</sup> Nearly 10% to 30 % children in early and middle childhood category face any type of chronic illness or minor health problems at one point in their lives.<sup>4</sup> Adjustment to the life with a severe illness and its management for a protracted period of time becomes a daily challenge for these

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children and for their care givers. Having children suffering from chronic diseases which are long-term in nature are reason for constant stress for care givers and effective use of coping strategies.<sup>5</sup> Social support is the essential factor which caregivers of children suffering from any chronic diseases need for effective handling of these children.<sup>6</sup>

Caregivers of patients with dependent needs, especially in the pediatric department, often face immense physical, emotional, and psychological stress. This stress can lead to mental health issues such as burn-out, anxiety and depression. Perceived social support refers to the belief that one has access to assistance from family, friends, and other individuals. Relevant research literature highlighted the shielding role of social support against the negative impacts of caregiving stress and burden. When the child in the family is suffering from any chronic disease, it increases the hospital visits, hospitalization, more demand of intensive care and sometimes there is a restructuring of roles within the family.<sup>7</sup> Additionally parental perception about all this situation and way of dealing with it, might be one of potential factor that that plays a crucial role in child's relationship with parents and also influences the child's functioning in daily life. Literature supports this aspect that caregivers of children with dependable needs better social support system to assist them in coping up with the complications come across throughout all phases of their child's disease.<sup>8,9,11</sup>

National Survey held by Children's Health in 2011-2012 reported that nearly 62 % fathers and 56.7% of mothers were in good physical as well as mental health. These results highlighted that in case of parents of children with chronic medical conditions, these percentages may be even lower. Caregiver physical and mental health in turn may have adverse effect on the eminence of care provided to sick child.<sup>10</sup> Family functioning is subsequently affected by presence of child with a chronic illness. Consequently,

it is crucial need to explore the potential risk factors of caregiver encumbrance and further interventions in this aspect.

Recent literature review highlighted crucial role of mothers in care and management of children suffering from various chronic illnesses.<sup>11</sup> Essential proclamations relay on this circumstance that mothers who are caregivers of children with serious medical conditions faced additional burden besides daily routine responsibilities of household and also other motherhood responsibilities of healthy children as well in the family. Burden as caregiver sometimes responsible for physical and mental health issues with financial difficulties, lack of libido in marital relationship and self-incrimination in mothers as caregivers.<sup>12</sup> This burden on caregiver's has an objective aspect that it effects physical and mental health and subjective aspect when it is relevant to the negative feeling which the intensive care incites in the caregiver of children with serious diseases.<sup>13</sup>

The severity of the child's health condition plays a substantial role in determining maternal mental health. Mothers of children with more severe health issues may experience higher levels of distress. The interplay between the child's condition, caregiving demands, and available social support can have a complex effect on maternal well-being.<sup>14</sup> Literature revealed the significant role of social support to mental health. Mothers who perceive higher levels of support tend to exhibit less depression, anxiety, and stress. Social support plays a role of buffer against the negative effects of stress and can enhance coping mechanisms.<sup>15</sup> This study aims to capture the clear picture of mental health of care givers and also explore that their perception of availability of social support which effect their mental health.

### Methodology

The research design was cross-sectional. Ethical Ref (479/ERC/CMH/LMC) The non-probability sampling

technique, purposive sampling technique was used. The sample size was based on the declaration developed by Kline (2013) that specified the ratio of sample must be at least 3:1.<sup>16</sup>

In inclusion criteria only mothers of inpatient children with chronic illnesses were approached, other care givers like grandmothers or fathers were excluded. In caregivers only mothers were included. Children with chronic illnesses including categories of disorders of nervous system (CNS), kidney disorders, genital-urinary disorders, structural anomaly, cardiovascular disorders, gastrointestinal disorders, endocrine disorders. Cerebral palsy, epilepsy, thalassemia, Tetralogy of Fallot (TOF) were prevalent ones in the current sample. In the sample 53 % were male and 47% were female children. A self-administered questionnaire was developed which covered all basic demographic factors like age of child and mother, gender, education year, birth order, number of siblings, family system, family members, and monthly income etc. The DASS is a clinical assessment instrument that assesses the three states of depression, anxiety and stress. It has total 21 items and takes only about 3 minutes in application. It has 4 point likert scale ranging from 0 to 3, the 0 means that the item “did not apply to me at all” and for 3 means that item “applied to me very much, or most of the time”.<sup>17</sup> This scale has good psychometrics. The cronbach's alpha values for the subscales of depression, anxiety and stress were 0.81, 0.89 and 0.78 respectively.

The Multidimensional Scale of Perceived Social Support Scale (MSPSS) was established for the assessment of an individual’s perception of social support from family, friends and a significant other. This tool is comprised of 12 items and has good psychometric properties.<sup>18</sup> The 151 caregivers of children who were inpatients (80 male & 71 female children) with chronic illnesses in pediatric departments of both public and private sectors were approached. Ethical per-

mission from the Ethical Review Board (ERB) of institute was obtained then further ethical permission from the respective hospitals administration was obtained before collection of data. Individual consent from the mothers was secured before administration of demographic form and further standardized questionnaires which were used to measure perceived social support and mental health issues after briefing them. Data collection was completed from May to December 2023. Descriptive statistics was used for a clear picture of all demographic factors, mental health characteristics and perceived social support. Inferential statistics Pearson correlation and regression analysis was used for the assessment of relationships and predictive relationship between perceived social support and DASS subscales of stress, anxiety and

**Table I:** Descriptive Statistics

Variables	M	SD
Stress	21.70	12.29
Anxiety	18.49	12.49
Depression	20.13	12.59
Significant other	5.23	1.34
Family	5.24	1.49
Friends	4.55	1.91
MSPSS	15.03	4.08

**Table II:** Summary of Correlations of MSPSS with DASS subscales (Stress, Anxiety and Depression)

Variables	SO	Family	Friends	TOT MSPSS
Stress	-0.272**	-0.419**	-0.466**	-0.462**
Anxiety	-0.263**	-0.354**	-0.316**	-0.364**
Depression	-0.312**	-0.439**	-0.410**	-0.456**

Note: \*\* correlation is significant at .01 level, SO=Significant other

depression.

Table I showed the mean and standard deviation of all variables of research and Table II revealed highly significant correlations of stress, anxiety depression with the total scores of MSPSS and also with the its three subscales (Significant other, Family and Friends). These results demonstrated a strong negative corre-

lation between perceived social support and mental health issues in caregivers. This implies that caregivers who perceive higher levels of social support

**Table III:** Summary of Regression Analyses with MSPSS as Predictor of Stress, Anxiety and Depression

Variables	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	R <sup>2</sup> Change	F	P	Durbin Watson
Stress	0.462	0.213	0.208	0.213	40.324	0.000	1.64
Anxiety	0.364	0.133	0.127	0.133	22.806	0.000	1.56
Depression	0.456	0.208	0.202	0.208	39.062	0.000	1.58

Note:  $p < 0.001$ , MSPSS appears as significant predictor of stress, anxiety and depression among mothers of patients with dependent needs in pediatric department

**Table IV:** Coefficients of Linear Regression with Stress, Anxiety and Depression as Dependent Variable and MSPSS as Predictor

Dependent Variable	Model	Unstandardized Coefficients		Standardized Coefficients		P
		B	SE	B	t	
Stress	Constant	42.561	3.404	-0.462	12.502	0.000
	(MSPSS)	-1.388	0.218		-6.35	
Anxiety	Constant	35.219	3.630	-0.364	9.703	0.000
	(MSPSS)	-1.113	0.233		-4.776	
Depression	Constant	41.236	3.498	-0.456	11.787	0.000
	(MSPSS)	-1.404	0.225		-6.250	

are less likely to experience mental health issues.

Results mentioned in the Table III and IV presents the summary of regression analysis which showed social support measured by MSPSS to be a significant predictor of stress ( $p < 0.000$ ), anxiety ( $p < 0.000$ ) and depression ( $p < 0.000$ ) in mothers as caregivers.

### Discussion

Children with lingering medical conditions have a medical schedule to follow that most commonly includes managing frequent hospital visits and appointments, medications, procedures such as injections, dialysis etc. Caregiving may negatively affect the caregiving individual's health and well-being. Because of patient's continuous needs, the

caregiver may suffer from physical problems such as fatigue and exhaustion. Physical exhaustion and caregiver's breakdown may increase depression and anxiety. Primary caregivers, who undertake providing care to the patient, face a lot of difficulties in physical, emotional, social, financial, and professional matters.

It is known fact that mothers play a central role in caregiving of the children who are suffering from chronic diseases and more dependable for their needs on their mothers as compared to their fathers as evidenced by relevant literature and it is aligned with the Pakistani culture which is collectivistic culture where it is assumed that mostly physical needs must be fulfilled by mother and father figure is generally responsible for financial needs. The sample of this study mostly comprised of middle and lower socio-economic classes. In this context these children with dependable needs mostly depend on mothers as caregivers for intensive care and supervision in daily life activities. Lot of previous literature revealed this fact that mothers of children with chronic diseases faced immense physical and mental exertion which leads to issues like effect on the quality of sleep, conflicts within family, mental health issues, financial crises and deterioration in quality of life of caregiver.<sup>19-25</sup>

The core finding of current study highlighted the need of social support by the mothers as buffer against their mental health issues which emerged due to burden of intense care taking. Social support by spouse, family members and close friends played pivotal role in the life of mother and saved her against stress, anxiety and depression. This aligns with existing literature that highlighted the buffering effect of social support on mental health stressors. In this context we can also include additional social support of healthcare professionals by providing appropriate information care and training to mothers as caregivers regarding disease, symptoms, and expected symptoms with disease progression, treatment, financial

burden and available resources in this aspect. All this support by health providers can serve as a protective factor against the emotional burden associated with caregiving.<sup>24-28,15</sup>

Perceived social support has been consistently linked to better mental health outcomes. Mothers who perceive higher levels of support tend to exhibit lower levels of depression, anxiety, and stress. So, in the nutshell, social support not only acts as a buffer against the negative effects of stress but it can also enhance coping mechanisms.<sup>15</sup> Another study revealed the relationship of social support with resilience in caregivers of patients suffering from schizophrenia.<sup>28</sup> However, on the contrary there is also research literature which showed no significant relation of strain with social support in caregivers as one of research on caregivers of children with cerebral palsy, showed outcomes that the degree of strain in caregivers with significant impact on their quality of life but no significant relation with the perceived social support.<sup>29</sup>

Furthermore, the research highlighted the importance of interventions aimed at enhancing perceived social support for caregivers in the pediatric department. Implementing support programs that focus on building a strong social network and providing resources for caregivers could contribute to improved mental health outcomes. Collaboration between healthcare professionals, support system within family and social circle, and one step further community organizations can play a crucial role in creating an environment that fosters social support for caregivers.

The current study has some limitations. First, in this research project mental health issues and perceived social support were assessed, no psychotherapeutic intervention like cognitive behavioral therapy etc. depending on the psychological requirement of the caregivers was implemented, it is recommended that in future research projects intervention approach must be used by using ABA design. Other limitation

was that only mothers were part of sample so future researchers can also include fathers or other significant others like grandmothers, and aunts etc.

### Conclusion

The conclusion based on the findings which highlighted the significance of social support as a protective factor against caregiver stress and mental health challenges. Recognizing and addressing the specific dimensions of social support from family, friends and significant others, can guide targeted interventions to improve the well-being of caregivers. Healthcare providers in pediatric departments should prioritize the implementation of support programs that facilitate the development of robust social networks for caregivers.

**Conflict of Interest:** None

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#### Authors Contribution

**IM, ZA:** Conceptualization and design of Project, literature search, Drafting and Revision.

**ZA, SA, HJ & MA:** Literature Search, Data Collection and Statistical Analysis.

**RA, MA:** Writing of Manuscript, Drafting, Revision and approval of the final draft.

Authors agree to be accountable for all aspects of work in ensuring that questions related to the accuracy or integrity of any part of the manuscript are appropriately investigated and resolved.