



CAREGIVER BURDEN AND IMPACT OF PSYCHOLOGICAL INTERVENTIONS ON CAREGIVERS OF PATIENTS WITH DEPRESSIVE DISORDERS

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ABSTRACT: Depression is the most common mental illness and is considered to be a chronic illness due to frequent recurrences, with sustained impairment in the functioning and need for longer duration of treatment. Caregivers of patients with psychiatric disorders suffer from high levels of burden. **METHODS:** caregiver burden was assessed using Montgomery Caregiver Burden Scale. Psychological interventions including psychoeducation and coping strategies were taught to the patients. Score were calculated at first and third visit. **RESULTS:** the study population showed higher proportion of subjective stress(70%),with objective burden(42%) and demand burden(15%) with significant decline following psychological interventions. **CONCLUSION:** caregiver burden predisposes caregivers to high levels of stress, anxiety or depressive symptoms. Timely psychological intervention can reduce caregiver burden, thus reducing the incidence of psychiatric illness in the caregivers.

KEYWORDS: *Caregiver burden, caregivers, depression*

INTRODUCTION

The global prevalence of psychiatric disorders is significant, with mental health conditions affecting large proportion of population. As per WHO survey, 1 in every 8 people, or 970 million people around the world are living with a mental disorder, with anxiety and depression being the most common. (Charlson



F. a., 2019) Depression is a “heterogeneous disorder characterized by loss of interest in previously enjoyable activities or pleasures and feeling persistent sadness, tiredness, helplessness, hopelessness, worthlessness, decreased concentration, sleep disturbances and abnormal appetite patterns. (Nestler, 2002) Individuals with Depression have a 20 fold higher risk of attempting suicide than general population. (Bostwick, 2000) Sustained impairment in functioning and a need for long term treatment results in significant deterioration of the overall physical, mental and social health of the individual causing huge impact on the daily activities like education, occupation, social relationships, etc, making it the second leading cause for Global Burden of Disease based on the years lived with disability (YLD), accounting for 37.3% of Disability adjusted Life years (DALYs). (Ferrari, 2013) (Andrews, 2001) Its chronic physical and psychological symptoms not only affect the quality of life of patient but also have an impact on the lives of their caregivers, resulting in caregiver burden.

Caregivers are individuals responsible for managing the physical, financial, and emotional needs of patients. Informal caregiving involves providing care without compensation for the time and resources spent, relying on an existing personal relationship between the caregiver and the patient. Research has consistently shown that caring for someone with a mental illness tends to cause higher stress levels compared to caring for someone with other chronic medical conditions that cause functional impairment. (Ampalam, 2012) Several studies suggest that the level of caregiver burden can vary significantly based on factors like age, gender, and education, but does not appear to be directly related to the duration of the illness. (Gerain, 2019) One study found that the severity of the patient’s condition and the lack of social support are major factors influencing the caregiver’s burden.

According to the Stress and Coping model by Haley et al., a caregiver’s ability to adapt to stress can be influenced by various factors, such as their assessment of the situation, coping strategies, and social support. Differences in how individuals respond to caregiving can be understood within a broader stress and coping framework. (Haley, 1987) Hoenig and Hamilton (1966) were the first to distinguish between subjective and objective caregiver burden. Subjective burden refers to how caregivers personally perceive their responsibilities and how much they feel overwhelmed, while objective burden pertains to the actual caregiving tasks and the negative effects the patient’s illness has on the household. Several factors can influence the caregiver’s burden, including how the family views mental illness, their level of



involvement, understanding of the illness, personality traits, and social connections. (Hoenig, 1966). Studies have shown a higher prevalence of burnouts leading to stress, fatigue, anxiety and depression among caregivers of patients with mental health conditions. (Gerain, 2019) Families, especially in India, play a crucial role in supporting mentally ill patients, showing remarkable resilience in caring for loved ones with depression. However, these families also face significant emotional, financial, and physical strain. (Avasthi, 2010)

Majority interventions focus on improving caregiver's ability to handle behavioral challenges and functional declines, often placing less emphasis on supporting the caregivers themselves. However, psychoeducational and psychotherapeutic programs have consistently proven effective in alleviating caregiver distress. Research highlights that therapeutic benefits often stem from enhanced coping skills, reduced dysfunctional thinking, and greater self-efficacy in managing distressing thoughts, emphasising primarily on strategies for alleviating caregiver burden (Cheng, 2019). However, there is limited evidence available on the extent of burden reduction achieved through these methods.

MATERIAL AND METHODS:

The study employed a longitudinal cross-sectional design over six months, from May 2024 to October 2024. Participants included caregivers of patients diagnosed with depressive disorder (based on ICD-10 criteria), aged 18–59 years, with no physical comorbidities. Eligible caregivers had lived with the patients throughout their illness and provided consistent physical, psychological, and financial support. Caregivers who met the inclusion criteria and provided informed consent were enrolled in the study, which adhered to the ethical principles outlined in the Declaration of Helsinki.

Sociodemographic details of the caregivers, along with key information about the care recipients, were documented. Caregiver burden was evaluated using the Montgomery Borgatta Caregiving Burden Scale, and participants were also assessed for depressive disorder based on ICD-10 criteria. All participants attended counseling sessions. The first session, conducted on the day the diagnosis was made, focused primarily on psychoeducation about the illness. The second session took place one week later, during



the patient's first follow-up visit that involved teaching coping strategies. During the patient's next follow-up i.e., two weeks later, caregiver burden scores were assessed.

INSTRUMENTS USED:

Montgomery Borgatta Caregiving Burden Scale:

This 14-item self-administered questionnaire assesses three dimensions of caregiver burden:

- Objective burden: Refers to disruptions in the tangible aspects of a caregiver's life.
- Subjective demand burden: Reflects the perceived excessive demands of caregiving responsibilities.
- Subjective stress burden: Represents the emotional strain associated with caregiving tasks.

Each item is scored between 0–5, with cut-off scores of 23, 15, and 13.5, respectively, indicating high levels of burden. (Montgomery, 2002)

STATISTICAL ANALYSIS:

Data analysis was conducted using IBM SPSS Statistics for Windows, Version 21.0 (IBM Corp., 2012). Descriptive statistics were used to analyze the sociodemographic characteristics of the participants. The Chi-square test or Fisher's exact test (for small sample sizes) was used to examine associations between caregiver burden and sociodemographic variables or patient characteristics. Statistical significance was set at $P < 0.05$.

RESULTS

The present study found that the mean age of the study participants was 35 ± 10.12 years. Majority of the study participants were in age group 18-30 years. Females constituted 63.3% of the total study participants. Majority of the study participants were educated either Primary/middle/high school (48.3%). More than half of the study participants (56.7%) were unemployed and around 60% of the study participants belonged to lower SES. Around three fourth (75%) of the study participants belonged to rural areas and 68.3% of the study participants belonged to nuclear family. 76.7% of the study



participants were married. 80% of the study participants stayed with the patients, 66.7% of the study participants were first degree relatives of the patients and 71.7% of the patients had 7-18 months of illness. 85% of them had less than 2 times hospitalization. 30% of the caregivers had depression and 72.2% of them had mild depression as presented in table 1.

Table 1: Distribution of sociodemographic and clinical variables in the study participants

VARIABLES	FREQUENCY N (%)
Mean age	35±10.12
AGE GROUP	
18-30	24 (40.0)
31-40	19 (31.7)
41-50	9 (15.0)
51-60	8(13.3)
SEX	
Male	22 (36.7)
Female	38 (63.3)
EDUCATION	
Illiterate	11 (18.3)
Primary/middle/high school	29 (48.3)
Intermediate/degree/professional	20 (33.3)
OCCUPATION	
Professional/skilled/shopowner	6 (10.0)
Semi/Unskilled	20 (33.3)
Unemployed	34 (56.7)
SOCIOECONOMIC STATUS	
Upper	5 (8.3)
Middle	19 (31.7)
Lower	36 (60.0)



BACKGROUND	
Rural	45 (75.0)
Urban	15 (25.0)
FAMILY TYPE	
Nuclear	41 (68.3)
Joint	19 (31.7)
MARITAL STATUS	
Married	46 (76.7)
Unmarried/separated/divorced	14 (23.3)
DURATION OF ILLNESS IN CARE RECIPIENT (MONTHS)	
<6	10 (16.7)
7-18	43 (71.7)
>18	7 (11.7)
HOSPITALIZATION	
0-1	51 (85.0)
≥2	9 (15.0)
RELATIONSHIP WITH THE CARE RECIPIENT/PATIENT	
First degree relative	40 (66.7)
Spouse	20 (33.3)
CAREGIVERS HAVING DEPRESSION	
Yes	18 (30.0)
No	42 (70.0)
If yes, severity	
Mild	13 (72.2)
Moderate	5 (27.8)

The study found that subjective stress burden at first visit was statistically significantly associated with age group (more in 18-30 years), sex (females), relationship with the patient (first degree relative), and

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caregiver having depression where as in the second round it was statistically significantly associated with sex (female), background (equal in rural and urban), and caregiver having depression (equal in both) as presented in in table 2.

Table 2: Comparison of sociodemographic and clinical variables in caregivers with subjective stress burden at two time intervals

VARIABLES	SUBJECTIVE STRESS BURDEN_1				SUBJECTIVE STRESS BURDEN_2			
	Yes	No	χ^2 /fisher's exact test	P value	Yes	No	χ^2 /fisher's exact test	P value
AGE GROUP								
18-30	22	2	9.909	0.015 *	8	16	1.788	0.691
31-40	11	8			7	12		
41-50	5	4			2	7		
51-60	4	4			1	7		
SEX								
Male	7	15	24.115	0.000 *	3	19	4.429	0.044 *
Female	35	3			15	23		
EDUCATION								
Illiterate	10	1	6.279	0.056	4	7	4.603	0.087
Primary/middle/high school	16	13			5	24		
Intermediate/degree/professional	16	4			9	11		
OCCUPATION								
Professional/skilled/	3	3	3.529	0.169	2	4	1.438	0.499



shopowner								
Semi/Unskilled	12	8			4	16		
Unemployed	27	7			12	22		
SOCIO-ECONOMIC STATUS								
Upper	3	2	4.877	0.080	2	3	2.601	0.240
Middle	10	9			8	11		
Lower	29	7			8	28		
BACKGROUND								
Rural	29	16	2.646	0.192	9	36	8.571	0.003
Urban	13	2			9	6		
FAMILY TYPE								
Nuclear	30	11	.620	0.431	13	28	.180	0.672
Joint	12	7			5	14		
MARITAL STATUS								
Married	33	13	.284	0.594	11	35	3.478	0.062
Unmarried/separated/divorced	9	5			7	7		
DURATION OF ILLNESS IN CARE RECIPIENT (MONTHS)								
<6	10	0	5.325	0.052	4	6	1.300	0.544
7-18	28	15			13	30		
>18	4	3			1	6		
HOSPITALIZATION								
0-1	35	16	.305	0.710	15	36	.056	1.000
≥2	7	2			3	6		
RELATIONSHIP WITH THE CARE RECIPIENT								
First degree relative	23	17	8.929	0.003	9	31	3.214	0.073



Spouse	19	1		*	9	11		
CAREGIVERS HAVING DEPRESSION								
Yes	18	0	11.020	0.000 *	9	9	4.898	0.027 *
No	24	18			9	33		
IF YES, SEVERITY								
Mild	13	0			7	6	.277	1.000
Moderate	5	0			2	3		

P value <0.05= significant

The study found that Objective stress burden at first visit was statistically significantly associated with occupation (more in unemployed), family type (nuclear) and caregiver having depression where as in the second round it was statistically significantly associated with education (Primary/middle/high school) , family type (nuclear) and caregiver having depression (yes) as presented in in table 3.

Table 3: Comparison of sociodemographic and clinical variables in caregivers with Objective stress burden at two time intervals

VARIABLES	OBJECTIVE BURDEN _1				OBJECTIVE BURDEN _2			
	Yes	No	χ^2 /fisher's exact test	P value	Yes	No	χ^2 /fisher's exact test	P value
AGE GROUP								
18-30	13	11	4.882	0.188	6	18	3.821	0.237
31-40	5	14			3	16		
41-50	5	4			0	9		
51-60	2	6			0	8		
SEX								



Male	6	16	2.961	0.085	3	19	.051	1.000
Female	19	19			6	32		
EDUCATION								
Illiterate	6	5	5.820	0.058	2	9	5.516	0.048
Primary/middle/highschool	15	14			7	22		
Intermediate/degree/professional	4	16			0	20		
OCCUPATION								
Professional/skilled/shopowner	2	4	6.861	0.026*	0	6	4.567	0.118
Semi/Unskilled	4	16			1	19		
Unemployed	19	15			8	26		
SOCIO ECONOMIC STATUS								
Upper	2	3	2.876	0.282	0	5	1.738	0.537
Middle	5	14			2	17		
Lower	18	18			7	29		
BACKGROUND								
Rural	19	26	.023	0.880	9	36	3.529	0.095
Urban	6	9			0	15		
FAMILY TYPE								
Nuclear	25	16	19.861	0.000*	9	32	4.907	0.046*
Joint	0	19			0	19		
MARITAL STATUS								
Married	18	28	.522	0.470	8	38	.884	0.671
Unmarried/separated/divorced	7	7			1	13		
DURATION OF ILLNESS IN CARE RECIPIENT (MONTHS)								
<6	3	7	1.469	0.539	1	9	1.870	0.718
7-18	20	23			8	35		
>18	2	5			0	7		



HOSPITALIZATION								
0-1	22	29	.303	0.722	7	44	.433	0.612
≥2	3	6			2	7		
RELATIONSHIP WITH THE CARE RECIPIENT/PATIENT								
First degree relative	15	25	.857	0.355	5	35	.588	0.464
Spouse	10	10			4	16		
CAREGIVERS HAVING DEPRESSION								
Yes	16	2	23.592	0.000*	6	12	6.779	0.016
No	9	33			3	39		
If yes, severity								
Mild	11	2	.865	1.000	6	7	3.462	0.114
Moderate	5	0			0	5		

P value <0.05= significant

The study found that Subjective demand burden in first round was statistically significantly associated with relationship with the patients (spouse) and severity of depression (moderate) among caregivers where as in the second round there was no statistically significant relationship with any of the independent variables as presented in table 4.

Table 4: Comparison of sociodemographic and clinical variables in caregivers with subjective demand burden at two time intervals

VARIABLES	SUBJECTIVE DEMAND BURDEN_1				SUBJECTIVE DEMAND BURDEN_2			
	Yes	No	χ ² /fisher's exact test	P value	Yes	No	χ ² /fisher's exact test	P value
AGE GROUP								



18-30	6	18	0.578	0.968	1	23	3.117	0.354
31-40	4	15			2	17		
41-50	2	7			2	7		
51-60	1	7			0	8		
SEX								
Male	2	20	3.237	0.106	2	20	.026	1.000
Female	11	27			3	35		
EDUCATION								
Illiterate	5	6	5.288	0.080	0	11	2.423	0.570
Primary/middle/highschool	6	23			4	25		
Intermediate/degree/ professional	2	18			1	19		
OCCUPATION								
Professional/skilled/shopowner	2	4	2.547	0.299	2	4	5.467	0.112
Semi/Unskilled	2	18			1	19		
Unemployed	9	25			2	32		
SOCIO ECONOMIC STATUS								
Upper	0	5	2.588	0.347	0	5	2.201	0.447
Middle	6	13			3	16		
Lower	7	29			2	34		
BACKGROUND								
Rural	12	33	2.651	0.153	4	41	.073	1.000
Urban	1	14			1	14		
FAMILY TYPE								
Nuclear	9	32	.006	1.000	2	39	2.024	0.314
Joint	4	15			3	16		
MARITAL STATUS								
Married	12	34	2.270	0.264	4	42	.034 ^a	1.000

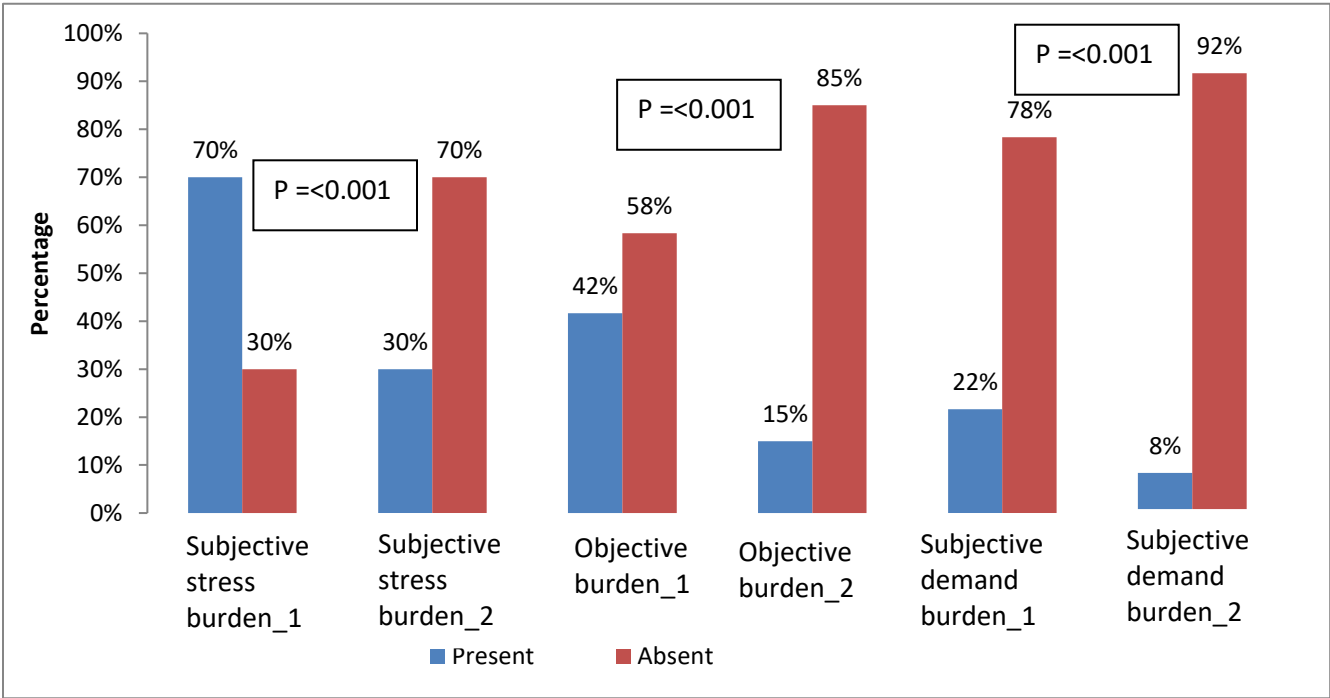


Unmarried/separated/divorced	1	13			1	13		
DURATION OF ILLNESS IN CARE RECIPIENT (MONTHS)								
<6	1	9	1.063	0.688	1	9	4.553	0.080
7-18	10	33			2	41		
>18	2	5			2	5		
HOSPITALIZATION								
0-1	13	38	2.929	0.184	5	46	.963	1.000
≥2	0	9			0	9		
RELATIONSHIP WITH THE CARE RECIPIENT/PATIENT								
First degree relative	5	35	5.941	0.015*	2	38	1.745	0.322
Spouse	8	12			3	17		
CAREGIVERS HAVING DEPRESSION								
Yes	6	12	2.062	0.151	2	16	.260	0.631
No	7	35			3	39		
If yes, severity								
Mild	2	11	6.785	0.022*	0	13	5.850	0.065
Moderate	4	1			2	3		

P value <0.05= significant

The present study found that there was statistically significant reduction in the percentage of study participants in subjective stress domain (40%, $p<0.001$), objective burden domain (27%, $p<0.01$) and objective demand burden domain (14%, $p<0.01$) as presented in figure 1.

Figure 1: Prevalence of different types of caregiver burden among study participants at two different time intervals



P value <0.05= significant

DISCUSSION:

The majority of previous studies have focused on caregivers of patients with schizophrenia and bipolar disorder, as these conditions are considered chronic and associated with greater functional impairment compared to unipolar depression. (Flyckt, 2013) Our study found a significant caregiver burden even among those caring for patients with depression. This aligns with a study conducted in five major European countries, which reported a higher caregiver burden among caregivers of individuals with unipolar depression compared to those caring for patients with other mental illnesses and the general population (Balkaran, 2021). Even though depression is the most prevelant psychiatric disorder, there are significantly lesser number of studies on psychological interventions in caregivers of depressive



patients. This current study reports significant decline in caregiver burden following psychological interventions. As reported in the study on caregivers of dementia patients, psychological interventions help in reducing stress which further declines the incidence in depression in the caregivers. (Cheng, 2019)

While some studies have reported conflicting results across different age groups, with majority indicating a higher caregiver burden among younger individuals. (Baronet, 1999) Our study supports this trend, showing greater stress burden in the younger age group with no statistically significant differences in terms of objective and demand burden. This may be due to younger individuals experiencing greater fear and stigma associated with mental illness, as well as concerns about the possibility of themselves or other family members developing a similar condition.

A study by El-Bilsha showed 90% of the caregivers for depressive patients were females whereas in the current study females constituted 63%. Females tend to spend more timing in caregiving compared to men and their higher psychological vulnerability makes them prone to higher incidence of caregiver burden. (El-Bilsha, 2019) These finding were consistent in our study also, indicating higher subjective stress burden in females and there was significant decline in burden following psychological interventions.

For individuals with mental illness, the family unit plays a particularly vital role. Mental health disorders have been linked to various social and psychological dynamics within one's family of origin. However objective burden was found to be significantly higher in caregivers belonging to nuclear families and these individuals benefited from Psychological interventions, showing significant reduction in burden. This could be attributed to the fact that joint families act as a buffer and individuals living in the joint families already have better coping strategies and higher problem solving skills. (Saunders, 1999)

Other sociodemographics variables like education level, socio economic status, occupation have shown to have significant correlation with the presence of caregiver burden. The current study stating unemployed participants showed higher objective burden. (Sun, 2019)



A review by Baronet indicated that there was no association with the presence of caregiver burden based on the relationship with the patients. However, current study indicates that demand burden was significantly higher in spouses. This could be related to the expectation of mutual support and sharing responsibilities among spouses which could result in higher distress in their relationship.(Baronet 1999)

Our study did not find a significant association between caregiver burden and the duration of illness and number of hospitalizations, which contrasts with previous research suggesting that longer illness duration leads to increased distress. For example, a study conducted in Nigeria on caregivers of patients with depression found that caregiver burden severity was directly proportional to both the severity and duration of the illness. (Olawale, 2014)However, the differing results in our study may be explained by existing literature, which suggests that caregivers of patients who receive appropriate mental health care and maintain a strong collaborative relationship with their treating physician experience lower psychological burden. (Greenberg, 1997)

Caregiver burden is a potential predictor of depression among those caring for patients with various medical and psychiatric conditions. Consistent with our findings, previous studies have reported a higher prevalence of depressive symptoms among caregivers experiencing both subjective and objective burden. This suggests that psychological distress and the inability to allocate time for oneself due to caregiving responsibilities may contribute to depression. In patients with psychosis, 54% of the informal caregivers reported some or a lot of problems with their own mental health and over 50% reported relational problems with the care recipient. (Flyckt, 2013) Factors associated with caregiver's depression mainly include behavioral problems in care recipients, caregivers' sociodemographic factors, lack of social support and greater care burden. Additionally, a study on interventions for caregivers of patients with depressive disorders found an increased incidence of stress, depression, and anxiety symptoms among caregivers. Psychological interventions have resulted in decline in number of caregivers having depressive symptoms, with significant decline in symptoms in caregivers having subjective stress burden. (Hatch, 2014)



The primary strength of this study is that it focuses on patients with unipolar depression in contrast to the previous studies focusing on various other psychiatric illness or medical illness. This was a longitudinal study giving the evidence of reduction in burden following psychological interventions.

The main limitation was limited sample size, and compliance to medication was not included.

CONCLUSION:

As caregivers play a crucial role in the treatment and progression of illness, addressing caregiver burden is essential. Moreover caregiver burden can be a major contributing factor for the onset of depression among caregivers, timely interventions as reported in the study would help reducing stress to significant proportions

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