

## Original Article

### Stress and Coping Status among Caregivers of Major Psychiatric Patients

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#### Abstract

*Caregivers play an important role for the treatment and wellbeing of the psychiatric patients. Constant caregiving role exert stress on the caregiver which is usually handled by them. This cross-sectional study aimed to assess the level of stress and coping status among conveniently selected 171 care givers of major psychiatric patients at National Institute of Mental Health (NIMH), Dhaka. Data was collected by the pre-tested semi-structure questionnaire blended with perceived stress and coping scale through face to face interview. Average coping status was found in most of the (70%) care givers; good coping status was found in more than one fifth (21%) of the caregivers and few (02%) caregivers had poor coping status. Stress and coping status was found ( $p < 0.05$ ) significantly related. This study finds the perceived stress among all the caregivers under study population; where high level of stress were perceived by more than three fourth of the caregivers and moderate to low level of stress were perceived by most of the caregivers. Caregiver-centric interventions, services and programs are recommended to plan and implement so that they should not compromise their caregiving work.*

**Keywords:** Stress, coping status, caregiver, psychiatric patient.

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#### INTRODUCTION

Mental disorder accounts for 13% global burden of disease.<sup>1</sup> About 1 in 17 people worldwide suffers from a serious mental illness.<sup>2</sup> Depression, psychosis, schizophrenia and bipolar disorder are the four out of six leading causes for the years lived with disability.<sup>3</sup> According to the World Health Organization (WHO), mental illness is found in at least one member of any one of the four families which results in family members providing care towards their sick member as a primary caregiver.<sup>3</sup> Although there is no valid data about the number of people suffering from the major psychiatric condition, the prevalence of mental disorder is varied from 6.5% to 31% and 13.4% to 22.9% respectively among adults and children in Bangladesh.<sup>1</sup> Bangladesh has been trying to provide institutionalized based health-care services to the mentally ill population since its independence. Of these, establishment of National Institute of Mental Health (NIMH) in 2000, and adoption of a mental health policy, strategy and plan in 2006 is significant. Although it was well known that appropriate medication is the principal element for optimizing a patient's function, it is also the case that the quality of care provided by family caregivers is important.<sup>4</sup>

A family caregiver may be a family member, a parent, a spouse, a son, a daughter, or other relatives or friends.<sup>5</sup> The caregiver not only stays with the patients but also allocates time to take proper care of them.<sup>6</sup> Uninterrupted caregiving can cause caregivers to create stress or strain, and lower levels of physical and mental well-being, and limit the caregivers' ability to perform their caregiving tasks. It is evident that moderate to severe stress is developed among caregivers of psychiatric patients.<sup>2</sup> Consequently, stress can lead to deterioration of physical and mental health. Mant et al (2005) state that caregivers are at high risk in developing physical and mental illness because of having excessive depression and stress resulting from performing psychiatric patients' daily activities.<sup>7</sup> Prior studies have shown that the development of depression among caregivers is a very common mental illness.<sup>8,9</sup> In addition to this, anxiety and stress symptoms are also experienced by the caregivers.<sup>10</sup> Lack of motivation, less or nil financial support and social isolation have been described as the most problematic area for caregivers.<sup>11</sup> Because of the deficiency of social, psychological and financial support, the quality of life of caregivers can be negatively affected; as a result, their effectiveness as caregivers is disrupted which can result in deterioration of the health of the sick family member.

Coping is understood as the process of managing demands (external or internal) that are appraised as taxing or exceeding the resources of the person which is seen as a process involving at least two stages: Primary appraisal (is this something to bother about?), and secondary appraisal (what can I do about it?).<sup>12</sup> It is proposed to serve two distinct purposes: To do away with the problem (i.e., problem-focused coping), and to regulate emotional reactions (emotion-focused coping).<sup>13</sup> Previous studies have not used the same assessment scale to identify coping strategies; as a result, it is difficult to compare their results with each other. A study using family coping questions found that more than half of caregivers adopted information, positive communication, patient social involvement, and resignation as their coping strategies.<sup>14</sup> Social involvement of the patient and positive communication as coping strategies were most frequently reported by both key relatives and other relatives in another study based on the family coping questionnaire.<sup>15</sup> On the other hand, a study used a combination of three coping frameworks namely cognitive or behavioral, social or non-social, problem-centered or emotion-centered suggesting that relatives often use behavioral coping responses more than cognitive, more socially than non-social and more emotionally than problem-focused coping strategy.<sup>16</sup> Other studies have reported most frequent use of problem focused coping.<sup>17</sup> self-controlling, positive reappraisal and escape-avoidance coping.<sup>18</sup> In Bangladesh, no studies have been conducted so far in regards to the coping status and strategies among the caregivers of psychiatric patients.

Caregivers play a significant role in the treatment and wellbeing of the patient. When caregivers suffer from stress, it may be difficult for the patient to recover from illness. If the caregivers are not being able to cope with the stress, the situation becomes complicated. In our country almost, all psychiatric illness patients depend on the care provided by their family members. Every patient needs a compulsory all-time caregiver from their family during his or her hospital stay especially in public hospitals. This study has aimed to provide policy makers and healthcare providers with some essential information that will help planning programs and services to alleviate the suffering of caregivers and build support for them that will ultimately contribute to the recovery of mental patients.

## MATERIALS AND METHODS

This cross-sectional study was conducted among the caregivers of major psychiatric patients of National Institute of Mental Health (NIMH), Dhaka lasting from 1<sup>st</sup> of January to 31<sup>st</sup> of December, 2019. The inclusion criteria for psychiatric patients was the duration of disorder  $\geq$  6 months. Caregivers whose age was  $\geq$  18 years, and who spent at least 30 minutes a day and  $\geq$  2 months with a psychiatric patient were included in the

study. On the other hand, smokers, diabetic, psychiatric and physically ill, and unwilling caregivers were excluded from the study. In order to select the sample size of the study, a standard equation was used.<sup>19</sup> Although a total of 179 caregivers were scheduled to be interviewed, 171 were set as the final number due to the reluctance of caregivers to participate in the study. Data were collected through a semi-structured questionnaire blended with perceived stress and coping scale. This questionnaire contained four parts such as socio-demographic status of caregivers, caregiving and care recipient related questions, caregiver's stress and coping information. Caregiver stress related question by using perceived stress scale PSS 10 version scale used. PSS Scale 10 version comprises 10 Question. Here cut off point is 0 = never,

1=almost never,2=sometimes,3=Fairly often,4=very often Here 0-13= Low stress, 14-26= moderate stress, 27-40= High perceived stress. Caregiving coping related question by using coping scale. Coping scale 13 question. Each answer category was assigned a value from 4 to 1. The total score can be a sum or mean of all items .we used Z-score of the in our analyses. Higher score indicates higher levels of coping. Here 4= Mostly true about me, 3= somewhat true about me, 2= A little true about me, 1= Not true about me. Score 13-25 poor coping, 26-38 average, 39-52 good coping. Prior to the implementation of questionnaire, a pretest was carried out at the Dhaka Medical College to check the validity and credibility of the questionnaire. A face to face interview was taken from the caregivers of mentally sick patients at the ward or cabin of NIMH after the final modification of the questionnaires. After receiving written consent from the caregivers, the interview proceeded. The data were checked for consistency and completeness and inserted, cleaned and recorded in the SPSS version 20 before moving to analysis. Descriptive statistics of frequency, percentage, means, medians, mode, standard deviation, tables and graphs were used to summarize the data. Chi-square ( $\chi^2$ ) test was used to explore the association and correlation between variables. A P-value of  $<0.05$  was considered as significant. Before commencing the study, the necessary approval was taken from the ethical committee of the National Institute of Preventive and Social Medicine (NIPSOM). Further, permission was also sought from the authority of the NIMH before implementing the interview towards the caregivers of major psychiatric patients.

## RESULTS

Table I Shows illustrates the socio-demographic status of the caregiver. Among them, 90.6 % caregivers mentioned their religion as Islam. 28.7 % of caregivers were over 47 years, representing the higher age group of caregivers among other age groups. The Mean  $\pm$  SD of caregivers' age was 40.09( $\pm$ 13.31) years. Among the caregivers, the percentage of female and male was 74% and 26 % respectively. About

33% of caregivers identified them as illiterate, while only 4% caregivers had a master's degree. 57.9% of participants cited housewives as their occupation which was the highest among other occupations of caregivers. At the time of the interview, 77.2 percent of the participants were married and 65% were living as a nuclear family. Further, 43.9% of caregivers monthly family income was <=10,000.

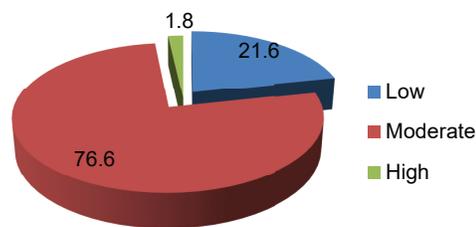
**Table I: Socio-demographic status of caregiver (n=171)**

Variables	Percentage (%)	
Age group (in years)	18-27	19.3
	28-37	24.6
	38-47	27.5
	>47	28.7
Mean ± SD 40.09(±13.31) years		
Gender	Male	26
	Female	74
Educational status	Illiterate	33
	Primary	22
	Secondary	24
	Higher Secondary	8
	Honor's	9
Occupation	Housewife	57.9
	Service holder	18.7
	Business	6.4
	Farmer	5.3
	Student	5.3
	others	6.4
Marital Status	Unmarried	14.6
	Married	77.2
	Separated	1.2
	Widow/Widower	7.0
Family type	Nuclear	65
	Joint	35
Family Income	<=10,000	43.9
	10,001-20,000	32.2
	20,001-30,000	14
	>30,001	9.9
Relationship with the patients	Husband/wife	18.7
	Son/daughter	49.7
	Son/daughter in law	2.9
	Siblings	19.9
	Brother/sister in law	3.5
	Other	5.3
Religious status	Muslim	90.6
	Hindu	9.4

Table II: Shows it is noticed that complete independence with no longer was identified by the participants of 53.8% in eating, 48.5% in daily activities and 64.3% in bowel/bladder, while at eating 4.7%, at daily activities 4.7% and at bowel/bladder management 5.3% of respondents had required minimal assistance with helper.

**Table II : Activities related to caregiver and care recipients**

Activities related to caregiver and care recipients	Percentage
<b>Eating</b>	
Total assistance with helper	7.0
Moderate assistance with helper	9.4
Minimal assistance with helper	4.7
Supervision with helper	25.1
Complete independence with no longer	53.8
<b>Daily activities</b>	
Total assistance with helper	6.4
Moderate assistance with helper	9.4
Minimal assistance with helper	4.7
Supervision with helper	31.0
Complete independence with no longer	48.5
<b>Bowel/bladder management</b>	
Total assistance with helper	3.5
Moderate assistance with helper	6.4
Minimal assistance with helper	5.3
Supervision with helper	20.5
Complete independence with no longer	64.3



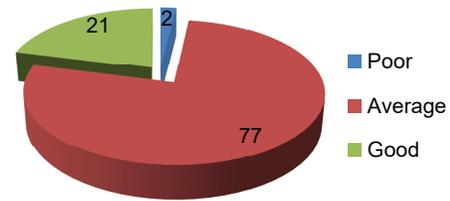
**Figure 1 : Stress percentage of different levels considered by the caregiver (n=171)**

Figure 1 illustrates the stress percentage of different levels considered by the caregiver. It is seen that low, moderate, and high levels of stress were perceived by 21.6%, 76.6%, and 1.8% of caregivers respectively.

Table III: Shows the caregivers previously employed were 20 (11.7%), had to leave the job 13 (7.6%) & took financial support 5 (2.9%). Mean duration of caregiving (months) 45.76 months ( $\pm$ SD 59.38) & Mean caregiving time was (hours/day) 18.56 ( $\pm$  SD 8.07).

**Table III: Distribution of caregiver their caregiving related information (n=171)**

Attributes	Frequency	Percentage
Caregiver employed previously	20	11.7
Caregiver had to leave the job	13	7.6
Financial support	5	2.9
Caregiving duration (months)	45.76 $\pm$ 59.38	
Caregiving time (hours/day)	18.56 $\pm$ 8.07	



**Figure 2 :** Percentage of caregivers coping status

The pie chart above presents the status of the caregiver in terms of coping as a percentage (Figure 2). Most of the participants' (77%) coping status was average followed by good (21%) and poor (2%).

Table IV: Shows the p-value for age was (0.241) followed by the marital status (0.241), educational status (0.122) and income level (0.044). Since income level's p-value was less than 0.05, representing it is as statistically significant. Therefore, income level has an association with the stress.

**Table IV: Association between socio-demographic status and perceived stress of caregiver (n=171)**

Variables	Low stress	Moderate Stress	High stress	$\chi^2$ Value	P-value
Age groups (years)	N (%)	N (%)	N (%)		
18-27	6 (16.2)	25(19.1)	2(66.7)		
28-37	8(21.6)	33(25.2)	1(33.3)	6.907	0.241
38-47	8(21.6)	39(29.8)	0(0.0)		
>47	15(40.6)	34(26.0)	0(0.0)		
Educational status					
Illiterate	9 (24.3)	49 (37.4)	0 (0.0)		
Primary	8 (21.6)	27 (20.6)	0 (0.0)		
SSC	7 (18.9)	28 (21.4)	1 (33.3)	13.2	0.122
HSC	4 (10.8)	11 (8.4)	1 (33.3)		
Graduation	5 (13.5)	12 (9.2)	0 (0.0)		
Post graduation	4 (10.8)	4 (3.1)	1 (33.3)		
Monthly Income (BDT)					
<10,000	14(37.8)	61(46.6)	0(0.0)		
10,001-20,000	10(27.0)	44(33.6)	1(33.3)	10.685	0.044
20,001-30,000	8(21.6)	16(12.2)	0(0.0)		
>30,000	5(13.5)	10(7.6)	2(66.6)		

Table V shows the association between socio-demographic and coping status. The p-value for educational status, profession, income level, and type of family was 0.235, 0.070, and 0.085 respectively. As none of the variables' p-value was lower than 0.05, therefore, there is no association between these with the coping status.

**Table V: Association between socio-demographic and coping status (n=171)**

Variables	Poor Coping	Average Coping	Good Coping	$\chi^2$ Value	P-value
	N (%)	N (%)	N (%)		
Educational status					
Illiterate	1 (50.0)	45 (33.3)	12 (35.3)		
Primary	0 (0.0)	28 (20.7)	7 (20.6)		
SSC	0 (0.0)	25 (18.5)	11 (32.4)	11.57 *	0.235
HSC	0 (0.0)	15 (11.1)	1 (2.9)		
Graduation	0 (0.0)	14 (10.4)	3 (8.8)		
Post graduation	1 (50.0)	8 (5.9)	0 (0.0)		
Monthly Income (BDT)					
<10,000	0 (0.0)	60 (44.4)	15 (44.1)	9.996	0.070
10,001-20,000	0 (0.0)	43 (31.9)	12 (35.3)		
20,001-30,000	0 (0.0)	18 (13.3)	6 (17.6)		
>30,000	2 (100.0)	14 (10.4)	1 (2.9)		
Family Type					
Nuclear	2 (100.0)	91 (67.4)	18 (52.9)	3.174	0.085
Joint	0 (0.0)	44 (32.6)	16 (47.1)		

Table VI shows 50% (n=1) had poor coping, 23.7 % (32) had average coping and 11.8% (4) had good coping status among the respondents having low stress. In contrast, 0.0% (0), 74.8% (101) and 88.2% (30) moderately stressed respondents had represented poor; average and good coping status respectively. Respondents having high perceived stress had 50% (1) poor coping, 1.5% (2) had average coping and 0.0% (0) had good coping status. This difference was statistically significant (p value: 0.009). So there was an association between level of stress and coping status

**Table VI: Relationship between stress and coping status (n=171)**

Stress Level	Coping			$\chi^2$ Value	p-value
	Poor	Average	Good		
Low stress	1 (50.0)	32 (23.7)	4 (11.8)	12.669	0.009*
Moderate stress	0 (0.0)	101 (74.8)	30 (88.2)		
High perceived stress	1 (50.0)	2 (1.5)	0 (0.0)		

## DISCUSSION

Current study found that 49 (28.7%) of caregivers aged over 47 years followed by 47(27.5%), 42 (24.6%), and 33 (19.3%) within the age group 38-47years, 28-37 years, and 18-27 years respectively. Unlike this finding, 45.9% of participants were between 18-30 years of age group, and 30.6% and 13.8% were between 31-40 years and 41-50 years age group respectively in a study conducted by Karim et al (2011).<sup>20</sup> Differences in the results of the two studies have been observed due to the different criteria of inclusion for the study and the lack of a universal scale for age-based group selection. Therefore, it is important to introduce a standard scale for selecting the participants based on the age-based group.

To classify gender-based caregivers, one piece of research proves that there were more women than men as caregivers.<sup>21</sup> which support the current study. As a result, women are more at risk of developing mental illness than men. In addition, the study reveals the normal state of culture in Bangladesh, especially marital and religious status, as most caregivers expressed themselves as Muslims (90.6%) and married (77.2 %). Further, this study also presents that parental bonding is stronger in Bangladesh like other studies<sup>22</sup> since 49.7 % of caregivers were found as the parents of the patients. Despite this study being carried out in a tertiary hospital situated in the capital of Bangladesh, most of the participants' occupational and educational status were identified as housewife (57.9%) and illiterate (33.9 %). These findings are different from the prior studies conducted in the same country.<sup>23</sup> Differences in study methods and locations may be responsible for this difference.

Psychiatric patients cared for by participants were found to be suffering from schizophrenia, bipolar disorder, anxiety, psychosis, and depression. This finding upholds another study conducted in Bangladesh which implies that a mentally ill person in this country usually suffers from the above mentioned major mental illnesses.<sup>22</sup> Thus, the training and awareness raising program focusing only on the mentioned disorders would be cost effective and time non-consuming and will be able to retain the caregiver on certain issues. On the other hand, the present study reveals some important information about hospitalization and medications of mentally ill persons, and activities of caregivers and care-recipients that will give other researchers some insight into conducting studies on this topic.

This study presents that most of the caregivers were experiencing moderate level of stress. No participants were found to be unstressed. This implies that the role of caregivers exerts pressure on caregivers. In regards to

coping status, it is found that maximum participants had average levels of this condition. Although how caregivers approach for coping were not under investigation in this study; thus, research on coping strategies and its significance is recommended to carry out. In addition, stress reduction intervention may help to reduce stress and cope up with their conditions. The present study looked for a link separately between the socio-demographic status and stress or coping status. Except for income levels, none of the aspects of the socio-demography had found to be associated with the stress or coping status of caregivers. Since money plays a direct role in getting people access to various public and private services, there can be a direct relationship between income and stress or coping with it. Further study is recommended to understand in depth how income regulates the stress and coping position of caregivers.

In order to examine the psychological status and its relationship with coping styles among the caregivers of individuals with intellectual disability and psychiatric illness, Panicker and Ramesh (2019) conducted a study and found that use of positive reinterpretation and growth was associated with lower levels of depression and stress symptoms.<sup>24</sup> The current study supports this finding as an association was found between the stresses and coping status among the caregivers. In addition, it is evident that caregivers with low stress do not seek enough coping style. Similarly, Kaur (2015) concluded that caregivers with low stress level had poor coping style.<sup>25</sup> This study suggests the health professional to focus on the care giving situation to provide better support to them and also suggests that it shall be advisable to provide equivalent services for caregivers. Failure to find timely coping styles can lead to increased levels of stress later among caregivers which can ultimately have a detrimental effect on the proper care of mental patients.

## CONCLUSIONS

In Bangladesh, major psychiatric conditions usually refer to schizophrenia, bipolar disorder, anxiety, psychosis, and depression. Person suffering from these conditions is labeled as a major psychiatric patient and the person who is cared for by these patients is regarded as a caregiver. In this country, parents play as the caregiver for most ill people. Caregivers of major psychiatric patients can experience low, moderate and high levels of stress because of their constant care giving role. On the other hand, poor, average and high coping conditions are found among the caregivers of mentally sick people. Except for income levels, none of the aspects of the socio-demography had found to be associated with the stress or coping status of caregivers. But caregivers stress and coping status are found

to be interrelated. The Caregivers who experienced low stress showed poor coping status. Failure to plan and implement the proper intervention, services and program for the caregiver may negatively affect their care giving performance which can deteriorate the wellbeing of major psychiatric patients.

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