Psychological Distress and Coping Patterns among Family Caregivers of Patients with Bipolar Disorder

Mennat allah Mohsen Zaki [1], Ghada Mohammed Mourad [2], Asmaa Hafez Afefe Barakat [3] Hoda Sayed Mohammed [4]

Assistant Lecturer of Psychiatric/Mental Health Nursing 1, Professor of Psychiatric/Mental Health Nursing 2, Professor of Psychiatric/Mental Health Nursing 3, Assistant Professor of Psychiatric/Mental Health Nursing 4 Faculty of Nursing Ain Shams University.

Abstract

Background Bipolar Disorder is a major psychotic disorder which causes considerable burden and limitations among the caregivers of the affected patients. Different coping methods are used that may have a buffering effect on level of psychological distress they experience. **Aim**: This study aimed to assess psychological distress and coping patterns among family caregivers of patients with bipolar disorder. **Design**: A descriptive cross-sectional analytical study design was utilized in this study. **Setting**: This study was carried out in the outpatient clinic of the Institute of Psychiatry affiliated to Ain Shams University. **Subjects**: this study was conducted on 50 family caregivers of patients with bipolar disorder. **Data collection tools**: 1) Interviewing questionnaire to assess: a) demographic data of caregivers, b) patient history of illness; 2) Kessler Psychological Distress Scale; and 3) Coping strategies inventory scale. **Results**: data analysis showed that 78%, 12% & 10% of the studied family caregivers had severe, moderate, and mild levels of psychological distress. Regarding their coping pattern, 76% of the studied family caregivers low problem focused engagement, while 54% & 58% of them had high problem focused disengagement and emotional focused disengagement. **Conclusion**: This study concluded that, more than three quarters of the studied caregivers had severe level of psychological distress, more than two thirds of them had low engagement coping and three fifths of them had high disengagement coping. **Recommendations**: Development of psycho-educational supportive program for family caregivers of patients with BD to reduce their psychological distress and improve coping patterns. Establishment of counseling clinics for caregivers of patients with mental illness including BD to enhance their resilience, coping skills and quality of life.

Key words: Psychological distress, Coping Patterns, Family caregivers, Bipolar disorder

Introduction

Bipolar disorder (BD) (formerly called manic-depressive illness) is a chronic mental disorder that causes unusual shifts in mood, energy, activity levels, concentration, and the ability to carry out day-to-day tasks. BD is a periodic and long-standing psychiatric disorder not only affects the patient's mental health but also affects the psychological well-being and coping patterns of their families **(Barakat & Ibrahim, 2020; Institute of Health Metrics and Evaluation, 2022).**

Also, the caregiving process often requires additional physical, emotional, social, and financial resources; this puts more strain on caregivers. Therefore, family caregivers of patients suffering from chronic diseases like BD constitute one of the vulnerable groups to alter relationships between family members, cause severe burden and develop psychological distress **(Koujalgi & Nayak, 2021)**

Psychological distress is defined as a state of emotional suffering characterized by symptoms of sadness, anger, anxiety, depression, tension, insomnia, confusion, obsessive thoughts, hopelessness, isolation, difficulty concentrating, lack of mental peace, irritability, frustration, and fearfulness as an outcome of caregiving on the long run. Psychological distress and burden, not only affect the quality of life and health of the caregivers, but also affect the individual's ability to cope with a particular set of circumstances and their ability to provide quality care for their patients **(Murkute &Veer, 2021)**.

Nurse interns are defined as As a result, family caregivers of patients with bipolar disorder experience a high level of burden and stress, which can put them at risk of using unhealthy coping strategies (including problem avoidance, self-criticism, wishful thinking and social withdrawal) that are associated with higher levels of depression and anxiety **(Au, et al., 2019)**.

Significance of the study

Bipolar disorder is a prevalent and chronic disease that affects the lives of patients, and relatives and has a negative impact on society. 60 million people around the world, including 2.8% of the U.S. population, have bipolar disorder. In Egypt, through the General Secretariat of Mental Health and Addiction Treatment; 25% of the studied population (31.639) of psychiatric patients, the most common disorders are mood disorders and the prevalence of bipolar disorder was 2.70 (**Rabie, et al., 2017).**

Family members assume the major responsibility for those patients, in addition to their responsibilities. In the developing world the care of the mentally ill is carried out by the family with minimal assistance from the health care system. So, caring for patients with BD can negatively affect the family caregiver's physical, psychological, financial, social life, family functioning, and marital relationship, and cause psychological distress. Also, the type of coping strategies used by caregivers appears to influence the impact of the stress of the role **(Udoh, et al., 2021).**

Aim of the study

This study aimed to assess psychological distress and coping patterns among family caregivers of patients with bipolar disorder.

Research Questions:

1.What is the psychological distress experienced by family caregivers of patients with bipolar disorder?

2.What are the coping patterns adopted by family caregivers of patients with bipolar disorder?

3.What are the relationship between psychological distress and coping patterns among caregivers of patients with bipolar disorder?

Subject and Methods

Research Design: A descriptive cross-sectional analytical design has been utilized to fulfill the aim of the study and answer the research questions.

Setting of the Study: This study was conducted in the outpatient clinic of the Institute of Psychiatry affiliated to Ain Shams University hospitals.

Subjects: A purposive sample of 50 family caregivers of patients with bipolar disorder who agreed to participate in the study and fulfilled the following inclusion criteria:

Inclusion criteria for patients with bipolar disorder:

- Age: above 18 years old.
- Including both sex
- Patient who was diagnosed with bipolar disorder for at least one year ago.
- Free from a co-morbid psychiatric disorder.

Inclusion criteria for family caregivers of patients with bipolar disorder:

- Family members who give direct care to the patient for at least one year ago.
- Sex: Both sex (males and females).
- Free from psychiatric disorders.
- Willing to participate in the study.

Data Collection tools:

Data were collected using the following tools:

1- Interviewing questionnaire to assess:

a) Socio-Demographic data of studied caregivers:

It included age, gender, relation to patient, marital status, residence etc

b) Patient`s History of illness regarding BD:

It included duration of illness, duration of treatment, etc.

2-Kessler Psychological Distress Scale (K 10):

It was developed by ***Kessler (2003),*** to yield a global measure of psychological distress based on questions about anxiety and depressive symptoms. It consists of a 10-item questionnaire.

Scoring System:

K 10 questionnaire rated on a 5-point Likert scale in which none of the time = 1, most of the time = 2, some of the time = 3, a little of the time = 4 and all of the time = 5. Scores of the 10 items are then summed, yielding a minimum score of 10 and a maximum score of 50. Low scores indicate low levels of psychological distress, and high scores indicate high levels of psychological distress.

K 10 scale	Score
Mild psychological distress	Less than 25
Moderate psychological distress	25-34
Severe psychological distress	35-50

3- Coping strategies inventory (CSI):

It was developed by ***David L. Tobin, (2001),*** and adapted by the researcher; it was designed to assess the thoughts and behaviors of the people used to handling the internal or external demands of a specific stressful event. The CSI contains 72 items, the final total of items after the researcher adaptation 26 items.

Scoring System:

Based on the original scale the tool classified in to 14 subscales including:

2 Tertiary subscales	4 Secondary subscales	8 Primary subscales	point likert scale
Engagement coping	Problem focused engagement	Problem solving (3 items)	always = 3, sometimes = 2, and rare= 1, except for item No.3 in emotional expression is reversed in score.
		Cognitive restructuring (2 items)	
	Emotional focused engagement	Emotional expression (4 items)	
		Social support. (5 items)	
Disengagement coping	Problem focused disengagement	Problem avoidance (3 items)	Reversed in scoring in which rare =3, sometimes =2 and always =1.
		Wishful thinking (3 items)	
	Emotional focused disengagement	Self-criticism (2 items)	
		Social withdrawal (4 items)	

Tertiary subscales	Low	High
Engagement	14-30.8	30.9-42
Disengagement	12-26.4	26.5-36

Operational Design:

This design includes an elaboration of the preparatory phase, pilot study and fieldwork.

Preparatory phase:

It included reviewing past, current, local, and international related literature, and theoretical knowledge of various aspects of bipolar disorder, caregiver's psychological distress and coping using books, articles, internet, periodicals, and journals.

Tools validity and reliability

To achieve the criteria of trustworthiness of the tools of data collection in this study, the tools were tested and evaluated for their face and content validity, and reliability 5 experts at the Faculty of Nursing, Ain Shams University with different academic categories, i.e., professors and assistant professors' specialties in the field of nursing including Psychiatric/Mental Health Nursing.

The reliability of the tools was assessed using the developed questionnaires and reassessment was done after (7) days on the same subjects. The results were the same each time. Measuring internal consistency by determining Cronbach alpha coefficient, proved to be high as indicated in the following table:

Reliability of Kessler psychological distress and coping strategies inventory scale: -

Scale	No. of items	Reliability
Kessler psychological distress	10	0.916
Coping strategies inventory	26	0.923

Pilot study

The Pilot study was carried out for 10% of the sample (6 family caregivers of patients with bipolar disorder) in the outpatient clinic to test the reliability, clarity of questions, applicability of the tools, and the time needed to complete. Based on the findings of the pilot study, there was no modification. Subjects who were shared in the pilot study were excluded from the main study sample.

Field work

The study consumed six months during the period from the beginning of May 2023 to the end of October 2023. Before starting the data collection, the nature and the purpose of the study were explained to:

1. Medical director of Institute of Psychiatry to get an official permission.

2. The head nurse and nursing staff in outpatient clinics to gain their cooperation.

Data were collected 2 days per week (Wednesday - Thursday) during the morning shift at the working time of The Specialized Out-patient Clinics in The Institute of Psychiatry Ain Shams University from (8.00 Am to 2.00 Pm) in the clinic of psychiatric patients. For 25-30 minutes for each case. The researchers met with each caregiver individually, the purpose and nature of the study were explained; and the confidentiality of data was ensured. Caregivers were asked if they were interested and agreed to participate in the study. After that, the researchers interviewed the participants individually.

Ethical considerations:

The ethical research considerations in this study included the following: Ethical approval was obtained from the Scientific and Ethical Committee of the Nursing Faculty of Ain Shams University, The researcher clarified the aim of the study to the family caregivers and obtained written consent from the family caregivers included in the study, Anonymity and confidentiality of the data were assured and maintained. Family caregivers were informed that they were allowed to participate or not in the study and that they had the right to withdraw from the study at any time, and the researcher clarified that all information would be used for scientific research and the benefit of the family caregivers.

Ethical code : 24.02.226

Administrative Design

An official letter was issued from the Faculty of Nursing-Ain Shams University to the director of Institute of Psychiatry, explaining the aim of the study and requesting their permission for data collection. Oral and written consent was obtained from every participant who included in the study.

Statistical Design

Data collected from the studied sample was revised, coded, and entered using a Personal Computer (PC). Computerized data entry and statistical analysis were fulfilled using the Statistical Package for Social Sciences (SPSS) version 22. Data were presented using descriptive statistics in the form of frequencies, percentages, and Mean SD. A correlation coefficient "Pearson correlation" is a numerical measure of some type of correlation, meaning a statistical relationship between two variables. Chi-square (χ^2) is a statistical test used to determine the relationship between categorical variables and R- test to the correlation between the study variables. Degrees of significance of results were:

Significant (HS)

- P-value > 0.05 Not significant (NS)
- P-value ≤ 0.05 Significant (S)
- P-value ≤ 0.001 Highly Significant (HS).

Result

Table (1) shows that, the mean age of the studied family caregivers was 46.14±3.65 years, and 46% of them age ranged from 36≤50 years. Also, 74% of them were female and 80% of them were married. In relation to the educational level 50% of them were intermediate education and 52% of them were mother. Regarding the family caregivers occupation, it was found that 62% of them were not working and 84% of them having insufficient monthly income. Furthermore, about 76% of the studied caregivers were residing in urban areas and 78% of them did not suffer from any chronic disease.

Table (2): demonstrates that, 52% of the studied patients their onset of the disease ranged from 8 ≤ 10 years, with mean 8.16±1.03. Also, 50% of them began treatment ranged from 8 ≤ 10 years, with mean 8.75±1.08. As regard to types of treatment, 100% of them were taking pharmacological treatment, 90% of them received electroconvulsive therapy and 46% of them undergo psychotherapy. In relation to the daily activity 76% of them needed assistant to carry out the activities of daily living. Moreover, 66% of them the number of hospital admission ranged from 4 ≤ 6, with mean 5.78±0.84 and 60% of them the current episodes were mania.

Figure (1): shows that, 78% of the studied family caregivers had severe level of total psychological distress. Also, 12% of the studied family caregivers had moderate level of total psychological distress, While 10% of them had mild level of total psychological distress.

Table (3): reveals that, 76% & 62% of the studied caregivers used low problem focused engagement and emotional focused engagement, while 54% & 58% of them, used high problem focused disengagement and emotional focused disengagement.

Figure (2): showed that, 70% of the studied caregivers used low engagement coping. While 30% of them used high engagement coping. This figure also indicated 60% of the studied caregivers used high disengagement coping. While 40% of them used low disengagement coping.

Table (4) shows that, there was strong statistically negative correlation between psychological distress and engagement coping among family caregivers, in which r= -.525 at p=.001**. While, there was mild statistically positive correlation between psychological distress and disengagement coping, in which r= .357 at p=.012*.

Table (1): Frequency distribution of the studied family caregivers according to their socio-demographic data (n=50).

Socio-demographic data	**N**	**%**
Age		
20 ≤ 35	8	16.0
36 ≤ 50	23	**46.0**
>50	19	38.0
Mean± SD	**46.14±3.65**	
Sex		
Male	13	26.0
Female	37	**74.0**
Relation to patient		
Father	10	20.0
Mother	26	**52.0**
Bother	1	2.0
Sister	6	12.0
Husband	2	4.0
Wife	5	10.0
Marital status		
Single	3	6.0
Married	40	**80.0**
Widowed	3	6.0
Divorced	4	8.0
Residence		
Rural	12	24.0
Urban	38	**76.0**
Educational level		
Primary education	14	28.0
Intermediate education	25	**50.0**
University education	11	22.0
Occupation		
Work	19	38.0
Not work	31	**62.0**
Monthly income		
Sufficient	8	16.0
Insufficient	42	**84.0**
Suffer from any chronic diseases		
Yes	11	22.0
No	39	**78.0**
If yes type of chronic diseases n=11		
Diabetes	7	63.6
Hypertension	4	36.4
Heart disease	0	0

Table (2): Frequency distribution of the studied patients according to their health history regarding BD (n=50).

Items	**N**	**%**
Onset of the disease		
1 ≤ 4 years	5	10.0
5 ≤ 7 years	9	18.0
8 ≤ 10 years	26	**52.0**
More than 10 years	10	20.0
Mean ±SD	**8.16±1.03**	
Beginning of treatment		
1 ≤ 4 years	3	6.0
5 ≤ 7 years	12	24.0
8 ≤ 10 years	25	**50.0**
More than 10 years	10	20.0
Mean ±SD	**8.75±1.08**	
***Types of treatment**		
Pharmacological treatment	50	**100.0**
Electro-compulsive therapy	23	46.0
Psychotherapy	45	**90.0**
Daily activities		
No help needed	8	16.0
Depends on himself but needs help	38	**76.0**
Completely dependent on others	4	8.0
Number of hospital admissions		
1≤ 3	2	4.0
4 ≤ 6	33	**66.0**
7 ≤ 10	15	30.0
Mean ±SD	**5.78±0.84**	
Current episodes		
Depression4	20	40.0
Mania	30	**60.0**

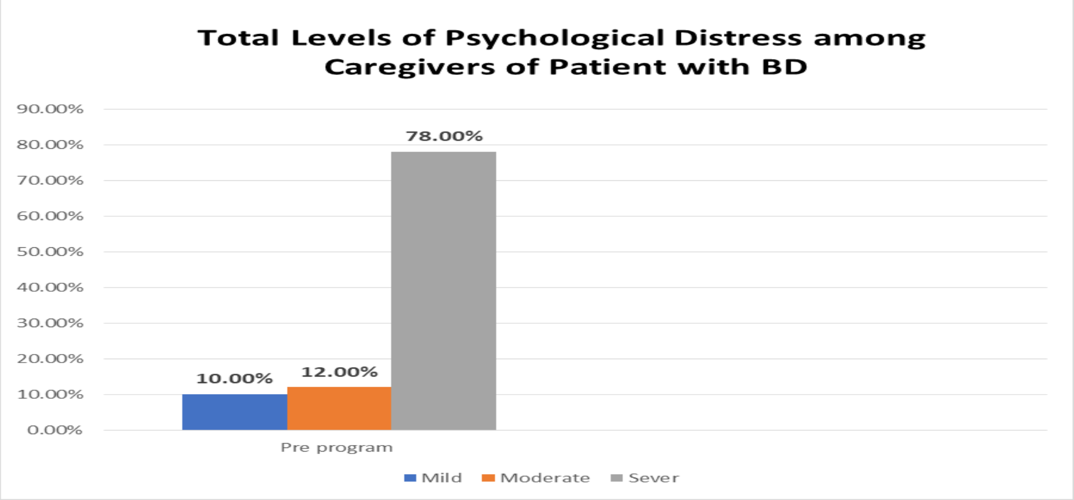

Figure (1): Frequency distribution of the studied family caregivers regarding their total level psychological distress (n=50).

Table (3): Frequency distribution of the studied family caregivers regarding their total coping patterns subscales (n=50).

Items	**(n=50)**				**X^2 p-value**
	High		**Low**		
	No	**%**	**No**	**%**	
Problem focused engagement coping	12	24.0	38	76.0	9.416 .000**
Emotional focused engagement coping	19	38.0	31	62.0	4.300 .010*
Problem focused disengagement	27	54.0	23	46.0	4.859 .012*
Emotional focused disengagement	29	58.0	21	42.0	8.963 .000**

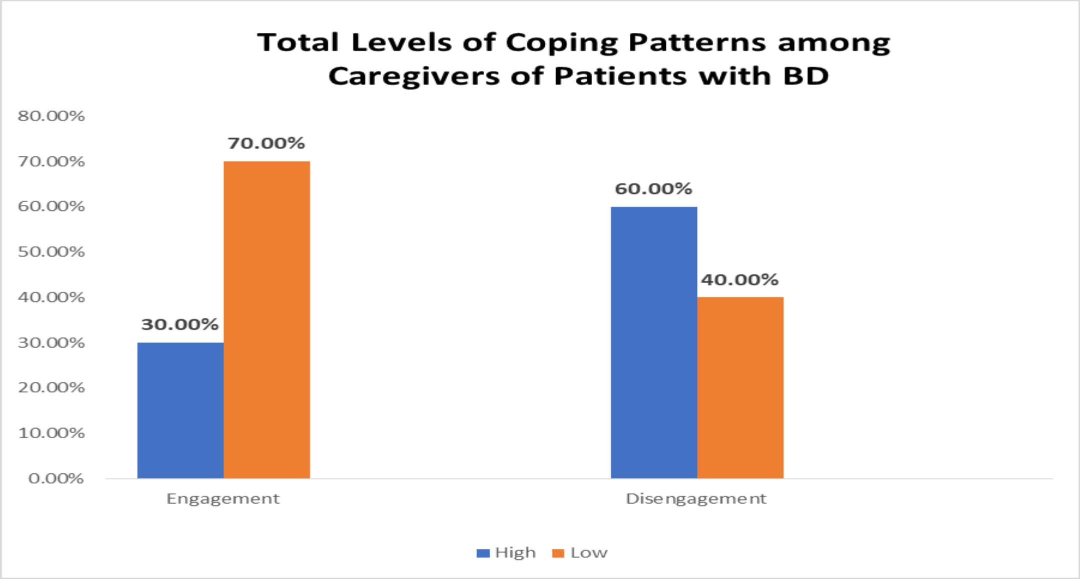

Figure (2): Frequency distribution of the studied family caregivers according to total levels coping patterns (n=50).

Table (4): Correlation between psychological distress and coping patterns among caregivers of patients with bipolar disorder (n=50).

Items		Psychological distress
Caregivers Psychological distress	**r** **p**	
Coping patterns		
Caregivers engagement coping	**r** **p**	-.525 .001**
Caregivers disengagement coping	**r** **p**	.357 .012*

Discussion

Bipolar disorder is mood disorder and one of the leading causes of disability worldwide and is associated with high rates of mortality from both suicide and medical comorbidities. Caregiving to patients with bipolar affective disorder is a stressful process and caregivers occasionally need professional support **(Speirs, et al., (2023).**

Therefore, this study was carried out to assess psychological distress and coping patterns among family caregivers of patients with bipolar disorder.

According to the characteristics of the studied family caregivers, our study results stated that the mean age of the studied family caregivers was 46.14±3.65 years, and less than half of them age ranged from 36≤50 years, This can be attributed to that the highest percentage of the studied caregivers were in middle-age. Most of family caregivers were mothers and wives (more than half were mother and generally about three-quarters were female) indicating that the role of caregiving for patients was culturally predominantly part of the female role. In addition, women by nature of their position and characteristics are taking the major responsibility of caring for their ill people in the family as a part of their daily household chores.

These results are similar to the results of a study performed by **Gelaye & Andualem, (2022)** who found that half of family caregivers their age were above 40 years old, slightly more than half of them were females and the majority of them were married.

Regarding working condition, more than three fifth of studied family caregivers not working and the majority of them were insufficient with their monthly income. This may be due to the fact that most of the family caregivers were female (about three quarters) and more than half of them were mothers. Furthermore, the current study findings found that about three-quarters of the studied family caregivers were residing in urban areas. This indicates that the study primarily focused on caregivers living in urban settings.

These results is in accordance with **Phillips, et al., (2023),** who carried out a study to assess the impact of caring for family members with mental illnesses on the caregiver and mentioned nearly three quarters of them were unemployed.

According to Patients' health history regarding BD, their onset of the disease ranged from 8≤10 years, with mean 8.16±1.03 years. Also, half of the studied patients began the treatment within 8≤10 years, with mean 8.75±1.08 years from the onset of the disease. As regards the types of treatment, all studied patients were taking medication and the most of them received electroconvulsive therapy (ECT). In relation to the daily activity of the patients under the study, it was found that, more than three quarters of them needed assistant to carry out the activities of daily living.

These results may be due to both medication and ECT the first line of treatment and as a part of hospital protocol. Also, Patients with bipolar disorder often experience disability in terms of cognitive impairments and activity limitations, leading to potential interference with a person's ability to accomplish the ADLs. So, they needed help to carry out the activities of daily living. Cham

These results are in agreement with the study achieved by **Cham, et al., (2022),** and entitled "Caregiver burden among caregivers of individuals with severe mental illness" and mentioned that all the studied patients were taking medication; the majority of them received ECT.

Psychological distress among family caregivers of patients with BD, the results showed that more than three quarters of the studied family caregivers had severe psychological distress. This elevated level of psychological distress might be owing to the physical and emotional drain, exhaustion of caregiving process, the stress of coping with disruptive behavior, disruption of family routines, the stigma they face, and the restriction of social activities to economic hardship.

Also, threats, annoyances, time spent with the patients, limited social life and leisure activities are also predictors of psychological distress. It could also be attributed to the facts that patient with bipolar disorder demands longer period of care and would not allow the caregivers explore other areas of life during the care period.

This result was compatible with a study in Nigeria conducted by **Stanley et al. (2022)** indicates that caregivers of individuals with bipolar affective disorder face high rates of psychological distress, with severe distress observed among this group.

Coping patterns among caregivers of patients with BD, the results showed that about three quarters of the studied family caregivers used low problem focused engagement coping. Also, more than three fifth of them low emotional focused engagement coping. This result might be due to increased dependency on caregivers, more hours of caring would be expected from them, which would exhaust their capacity to manage care demands with problem solving style. Evidenced by their frequent use of problem and emotional focused disengagement coping. **Abbaslou, et al., (2023)**

These results agree with the study by **Abbaslou, et al., (2023),** who stated that less than three quarters of the caregivers under study had less use of problem focused engagement.

As regards emotional focused engagement coping, more than three fifths of the studied family caregivers used low emotional focused engagement coping. This result might be due to the chronicity of the patients' disorder (more than half of them had the disorder for more than five years), lead to the experience of severe level of burden at external support factors among the caregivers. These results disagree with the study done by **Mohmed, et al., (2019),** who found that, the most frequently used strategy by caregivers was emotion focused engagement.

Regarding problem focused disengagement coping, more than half of the studied family caregivers used high problem focused disengagement coping. In the present study frequent use of problem focused disengagement was related significantly among caregivers who were less than 36 years old and had not enough income. The financial problems can induce a lot of stress on family caregivers and result in maladaptive coping strategies because they had less resource to meet the caring demands.

These results are supported with the study done by **Tabas, et al., (2023)** and reported that greater use of problem focused and seeking support coping strategies were associated with higher positive personal caregiving experience.

Regarding emotional focused disengagement coping, less than three fifths of the studied family caregivers used high emotional focused disengagement coping. These results could be due to the patient's abusive or violent behavior and the social stigma they face related to having a close relative with a mental illness sometimes prevents them from having leisure and social activity or even getting married.

These results are supported with the study done by **Mehra, et al., (2020)** who found that the highest mean scores of coping strategies utilized by them were related to self-criticism and social withdrawal.

The present study revealed that, there was strong statistically negative correlation between psychological distress and engagement coping among family caregivers. While, there was mild statistically positive correlation between psychological distress and disengagement coping. It means that the studied family caregivers who experienced use engagement coping strategies have been found to experience less psychological distress (anxiety and depression) compared to those use disengagement coping strategies.

Similarly**, García-Alberca et al. (2021)** mentioned that there was significant positive correlation between caregivers' disengagement coping and their psychological distress.

Conclusion

On the light of the current study results, it can be concluded that more than three quarters of the studied family caregivers of patients with BD had sever levels of psychological distress and more than two thirds of them had low engagement coping. As well as there were a strong statistically negative correlation between psychological distress and engagement coping among family caregivers.

Recommendations

Based upon the results of the current study, the following recommendations were suggested:

- Establishment of counseling program for patients with mental illness and their caregivers including bipolar disorder (BD) to improve their psychological well-being.
- Developing psycho-educational program for psychiatric mental health nurse to provide psychosocial support throughout their routine work at health care setting.
- Development of rehabilitation program to provide primary, secondary, and tertiary rehabilitation in order to enhance resilience, coping skills and quality of life for patients of BD and their caregivers.
- Future studies to assess factors that may influence role of care giving and different challenges faced by family caregivers of patients with BD.

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