

Effect of Psychosocial Nursing Intervention on Expressed Emotions and Responses to the Patient Illness among Family Caregivers of Patients with Bipolar Disorder

Rania.A. Zaki⁽¹⁾, Hanaa Ezz El-Din Prince⁽²⁾

(1) Assistant Professor, and (2) lecturer of (Psychiatric/Mental Health Nursing, Faculty of Nursing Ain Shams University).

Abstract

Background: Bipolar disorder is a lifelong illness that disrupts the patient's life and familial equilibrium that makes the role of caregivers very demanding and distressing, especially when the caregivers have not received enough information, and support. Expressed emotion (EE) refers to the quality of the family environment reflected in the comments, attitudes and communication style that can seriously affect the lives of patients and their families. **Aim:** This study aimed to investigate the effect of psychosocial nursing intervention on expressed emotion and response to the patient illness among family caregivers of patients with bipolar disorder. **Research design:** A quasi-experimental designed on one group pre/post assessment was utilized on (40) family caregivers' of patients with bipolar disorder, at outpatient clinics in Al- Abassia Mental Health Hospital. . **Tools of data collection:** The data was collected using an Interviewing questionnaire to assess the Demographic data of family caregivers and their patients with bipolar disorder, The expressed emotions scale EES and Family Interview questionnaire. This questionnaire was applied before and after the psychosocial nursing intervention. **Results:** The current study revealed that: there were highly statistically significant differences between before and after application of the psychosocial nursing intervention program regarding to family caregivers' level of expressed emotion and family care givers response to the patient illness. **Conclusion:** The study concluded that, this reduction in caregivers' expressed emotions and enhancement caregivers' response to patient illness justified the research hypothesis and reflected the positive effect of the psychosocial nursing intervention program. **Recommendation:** Development of psycho-educational supportive program for family caregivers of patients with BD to reduce their levels of expressed emotion.

Keywords: bipolar disorder - Caregivers' expressed emotion-- family response – psychosocial nursing intervention

Introduction

Bipolar disorder is a recurrent and sometimes long-term mental illness that can seriously affect the lives of patients and their families. It was characterized by repeated episodes of elevation of mood and increased energy and activity (mania or hypomania), and on other of a lowering of mood and decreased energy and activity (depression). It considered a significant public health problem often associated with impaired family and peer relationships, high rates of chronic mood symptoms, psychosis, disruptive behavior disorders, suicide attempts and completions. Therefore, BD has higher behavioral health costs and greater utilization of medical services **Hower, Lee, Jones, Birmaher, Strober, Goldstein& Yen (2019).**

Expressed emotion (EE) refers to the quality of the family environment reflected in the comments, attitudes and communication style of a relative about an individual. It might also be used as a means of examining the emotional climate that is likely to be experienced by family members. It contains five components includes critical comments, hostility, emotional over involvement, positive remarks, and warmth. The main component of EE are critical comments, which are related to negative judgment of patient conduct; hostility, related to the negative concept of the patient as a person; and emotional over involvement, which refers to feelings or attitudes, to despair, to self-sacrifice and to overprotection of the patient on the part of the family members. **(Hegazy, Mourad, & Zaki. (2021).**

Important aspects of EE are criticism, hostility, and emotional over-involvement. These emotions are highly correlated with the worsening of symptoms and the need for hospitalization (Mohamed, Abdelsalam, Mahmoud and Al- Momen 2017). During the care of patients with bipolar disorder, caregivers have reported the communication with these patients being very difficult. The family has one of the most important and major support systems for the patient, and the role of the family cannot be disregarded (Sazvar, Nouri., Saei and Hatami, 2017).

Patients' family environments have focused on expressed emotion (EE), that is, individual attitudes or predispositions that facilitate or interfere with interpersonal relationships and constitute a relational process between patients and their relatives. (Yadav , Parija, Yadav and Patel, 2018)

Family caregivers of people with bipolar disorder are classified as high- or low expressed emotion based on the presence of criticism, hostility or emotional over – involvement. Families who have high expressed emotion experience mixed emotions as they experience cycles of hope and disappointment. High expressed emotion caregivers appear to perceive their caring situation as more stressful than low expressed emotion caregivers (Arafa, Ahmed , Mahmoud Zaki, & Abdel-Baseer (2021).

High expressed emotion, by contrast, makes the patient feel trapped, out of control and dependent upon others. The patient may feel like an outsider because of the excessive attention received. Expressed emotion affects everyone in the home, raising the stress level for the family and often increasing anxiety and depression among family members (Addington, et al 2001). They typically experience considerable subjective burden. The caregiver affected by cultural and social attitudes to the illness and these have important effects on their level of expressed emotion. (Ramírez, Palacio, Vargas, Díaz-Zuluaga, Duica, Berruecos, & López-Jaramillo .2017).

Family plays a very important role in the patient's life, especially during manic and depressive episodes. Encourage family to give the patient support. When the families need any

information about the patient illness such as; diagnosis, symptoms, or behavior and ask questions .Also, if the family is reluctant or unwilling to accept the diagnosis of a mood disorder, the patient not feeling be alone. (Perlick, Miklowitz, Lopez, Chou, Kalvin, Adziashvili & Aronson, 2010).

Psychosocial interventions is primarily aimed at reducing from high to low expressed emotions. Psychosocial interventions are psycho education, communication skills, problem-solving skills, social skills and occupational training, crisis management, and healthy coping strategies with the continuous medicines proved to be effective in reducing the high Expressed Emotions [EE] and improving treatment outcome. (Mukherjee, 2017).

Psychiatric mental health nurse attempts to assess areas of express emotions in families' caregivers of patients with bipolar disorder to provide valuable information for designing interventions that help them to deal better with the patient and reduce the negative expressed emotion. Also, Psychiatric nurses play important role in providing family caregivers with basic information that help them to deal better with the patient and reduce the negative expressed emotion (Arafa, et al., 2021).

Significance of the study

Bipolar disorder is a disabling psychiatric illness with a high rate of recurrence, persistent symptoms, and impairment in functioning. The prevalence of bipolar disorder is 1.3 to 3.8% in the world. The World Health Organization ranked bipolar disorders collectively as the 6th most common moderate to severely disabled condition in the world for any age group (WHO, 2017). In Egypt, the most common psychiatric disorders are mood disorders, "specifically depression" which the percent was 43.7%. The prevalence of bipolar disorder was 2.70 (Hegazy, et al, 2021).

The presence of a patient with bipolar disorder interferes with many aspects of family dynamics, generating a need for support, counselling and psychoeducation on the disease and treatment, as well as indications about how to relate to the patient (Sharma, Nehra, & Grover , 2020).

Family caregiver interventions can reduce expressed emotion and reinforce caregivers' self-esteem and coping and improve outcomes for the family member with patient having mental illness. **Reinares, Bonnín, Hidalgo-Mazzei, Sánchez-Moreno, Colom, & Vieta, 2016**). So that this study aim to investigate the effect psychosocial nursing intervention on expressed emotion and response to the patient illness among family caregivers of patients with Bipolar Disorder.

Aim of the Study:

This study aimed to investigate the effect of psychosocial nursing intervention on expressed emotion and response to the patient illness among family caregivers of patients with Bipolar Disorder

This aim achieved through:

- 1- Assessing the levels of expressed emotions among family caregivers of patients with bipolar disorder.
- 2- Assessing the response to illness among family caregivers of patients with bipolar disorder
- 3- Accordingly developing and implementing psychosocial nursing intervention for reducing expressed emotion among family caregivers of patients with bipolar disorder.
- 4- Evaluating the effectiveness of the psychosocial nursing intervention program on reducing expressed emotion and responses to the patient's illness among family caregivers of patients with bipolar disorder .

Research Hypothesis:

The current study hypothesized that psychosocial nursing intervention program will have positive influence in lowering high expressed emotion of family caregiver of patient with bipolar disorders and enhance their response to their patients' illness

Working Definition

Expressed emotion among family caregivers of patients with bipolar disorder is limited to twelve domains, we emphasize in

this study on three domain which as: Hostility, criticism, and over involvement"

Subject and Methods

Technical design:

Research design: A quasi-experimental design was utilized to conduct the study.

Study setting

This study was conducted at the outpatient clinics in Al- Abassia Mental Health Hospital.

Subjects:

Purposive Sampling technique was used. The subjects for the study were 40 family caregivers of Patients with Bipolar Disorder who met inclusion criteria during their follow-up visits to the previously mentioned setting.

Inclusion criteria

- Both sexes (males and females)
- Lived in the same household and have been provide care at least six months
- Free from chronic physical disease.
- Free from significant psychological co-morbidities

The subjects determined by using the following statistical equation.

$$S = X 2NP (1 - P) \div d 2 (N - 1) + X 2P (1 - P).$$

Description

S: required sample size.

X 2: the table value of chi-square for 1degree of freedom at the desired confidence level (1.96 x 1.96 = 3.4841).

N: the population size.

P: the population proportion (assumed to be 0.50 since this would provide the maximum sample size).

D: the degree of accuracy expressed as a proportion (0.05).

Tools of data collection:

I. socio - demographic data sheet:

It was designed by the researchers after reviewing related literature to assess demographic data of both family caregivers

and their patients with bipolar disorder and it was divided into two parts:

A. First part: (Demographic data of family caregivers): included data related to demographic characteristics of caregivers of patients with bipolar such as; age, sex, education, monthly income, relation to patient, and history of bipolar disorder within the family.

B. Second part (Demographic data of patients with bipolar disorder): included data related to demographic characteristics of patients with bipolar such as age, sex, level of education, occupation, and duration of the disease, and numbers of manic and depressive episodes

II- The expressed emotions scale (EES): It was designed by the researchers after reviewing a related literature, and previous studies in the field of expressed emotions and guided by many scales, for example

- The Level of Expressed Emotion Scale (Cole and Kazarian, 1988).
- EE characteristics of family members (Chen, 2014)
- Family Interview (Scott and Campbell, 2000)
- Family Emotional Involvement and Criticism Scale (FEICS) (Shields et al, 2007)
- The Level of Expressed Emotion Scale (Gerlsma, et al , 1992).

Then the researchers designed a new scale appropriate for the study and its population. Determination of the scale's subscales was derived from the theoretical framework of the study. It consisted of 36 items divided into three domains :

1. Hostility, negative attitude directed at the patient because the family feels that the disorder is controllable and that the patient is choosing not to get better. The family believes that the cause of many of the family's problems is the patient's mental illness,
2. Criticism, include complaints that the patient is a burden to the family, that the patient is not following instructions, or that the patient is lazy or selfish.

3. Over-involvement:- reflects a set of feelings and behavior of a family member towards the patient, indicating evidence of over-protectiveness or self-sacrifice, excessive use of praise or blame, preconceptions and statements of attitude.

Which are represented at 36 statements, and it is based on three point's liker scales (always, sometimes, and never). The score was designed to be 3= always, 2= sometimes, and 1= never.

Scoring System

EES scale	Score
Low expressed emotion	36: 72
High expressed emotion	73: 108

III- Family Interview questionnaire

This tool was developed by Vaughn and Left, (1976) it was translated into Arabic version by Abo-Almagied, (1993) and was modified by the researcher. It was used to assess patients' families about their response to their patients' illness. The questionnaire consisted of 33 items divided into six sub items: Loss of control over behavior, Feeling of depression, Miscommunication with others, inadequate social behaviors, Physical disorder, and work.

Scoring system

The questionnaire was measured on four-point scales ranging from always (1), usually (2), rarely (3) and never (4).

Scale	Score
Low response	1 :< 33
Mild response	33: 66.
Moderate response	67:99.
High response	100: 132.

Validity & Reliability:

The developed tool was reviewed by (5) experts in psychiatry and psychiatric mental health nursing, as well as experts in socio-behavioral sciences, who reviewed the tool for clarity, relevance, comprehensiveness, understanding, applicability and ease for implementation. Measuring internal consistency by determining the Cronbach alpha coefficient, proved to be high as indicated in the following table:

Reliability of expressed emotion and family Interview scale:

Tools Cronbach Alpha Coefficient			
Tools	Scale Reliability	Face validity	Statistical validity
Socio-demographic interview questionnaire	0.68	0.84	0.92
Expressed emotion	0.89	0.76	0.88
Family Interview questionnaire	0.69	0.85	0.92

Operational design:**Pilot Study:**

The pilot study was carried out at the mid of February 2021 before data collection on a group of 10% of the sample (family caregiver of patients with bipolar disorder) later excluded from the actual study subjects to test and evaluate the clarity, feasibility and applicability of the research tools, in order to estimate the time needed to collect data. According to the pilot study results, the necessary modifications were done, for example: font and format of tables were reprinted in clear forms.

Field Work:

After an official permission was obtained from the director of Al-Abassia Mental health hospital. The actual fieldwork for the process of the data collection has consumed three-months started at the beginning of February 2021 to end of April 2021. The interview methods were used for data collection; subjects were interviewed by the researchers, after explaining the aim of the study that was conducted through four phases:

1. **Pre-assessment phase.** It was done before the implementation of the psychosocial nursing intervention to identify the caregivers' expressed emotion and their responses to their patient illness.
2. Development of the psychosocial nursing intervention intervention phase. According to the identified caregivers' expressed emotion and their responses to their patient's illness. ; The researchers developed psychosocial nursing intervention sessions, aimed to lower the expressed emotion and improve the response to the patient illness among family caregivers of patients with bipolar disorder. Sessions include accurate knowledge about expressed emotion, the

appropriate response to every attack of bipolar disorder.

3. Implementation of psychosocial nursing intervention sessions' phase: The researchers interviewed with the caregivers and their patient with bipolar disorder in the Out-Patient Clinic in Al-Abassia Mental Health Hospital affiliated to Ain Shams University Hospitals after the researchers explained the aim and objectives of the psychosocial nursing intervention sessions to the caregivers, The intervention program was implemented by classifying the caregivers of patients with bipolar disorder into 5 groups, each group consisted of 8 persons .

The intervention program was introduced for each group separately in the reception or in the garden beside the out – patient clinics due to the implementation of the preventive measures against COVID 19 in the hospital, the selected caregivers attended to the out- patient Clinics 4 days a week (Sunday, Monday, Wednesday, and Thursday) during the morning shift (9.00 a.m:2.00p.m.) after coordination with clinics nurses and security throughout. The duration of each session lasted from 45 - 60 minutes. Each clinic contains 2 beds and 6 chairs; also it has good ventilation and many light sources. The researchers took the caregivers' telephone number at the first interview to determine the next appointments.

The tools of data collection were filled in by the caregivers or by the researchers when they were not educated. Filling in the tools lasted from 20-25 minutes for each participant. The period of implementation of the psychosocial nursing intervention was achieved within 10-12 weeks; each session consisted of the following activities: participant's acquaintance, expressing feelings, exchange experiences, interaction with others, training to

listen attentively and arrange what the subject wants to say .

Contents of psychosocial nursing

intervention sessions :

The content of the booklet covers the following parts:

- a) The first was the theoretical part that concerning with the knowledge about (bipolar disorder) as definition, causes, signs and symptoms, complication, side effect, and treatment. In addition to the knowledge about the definition ,types, signs and symptoms of expressed emotion and what is the meaning of response to the patient illness and levels of it and how does it affect the progress of the patient illness.
- b) The second was the practical part that concerning on how to the caregivers should improving their response to their patient's illness. And the methods of dealing with bipolar disorder patient's problems, and the steps that they should be used for improving their responses and how to enhance or lower their expressed emotion. The content of the intervention program was achieved through (20) sessions, covered in (17) hours approximately, (2 theoretical hours and 14 practical hours and 2 hours for data collection and acquaintance).

Content of psychosocial nursing intervention sessions

Session 1- Focused on orientation about psychosocial nursing intervention program and importance of reducing their expressed emotion and response in apposite way toward their patient's illness.

Session 2- Definition of bipolar disorder, incidence and prevalence, causes, types, signs and symptoms, and treatment.

Session 3:4- Emphasizing on the role of caregivers in appropriate management of signs and symptoms according to the bipolar attack (mania or depression)

Session 5- Displays the caregiver's roles in caring the side effect of medication to every attack of bipolar disorder

Session 6- Summarizing and reviewing of past sessions, and asking caregivers to explain their personnel problems and feeling.

Session 7: 11- Defining how caregivers expressed their emotion and their responses in different patient attacks of bipolar disorders.

Session 12:14- Focusing on improving expressed emotion by lowering its level among caregivers of patients with bipolar disorder.

Session 15:18- Regarding to enhancement the response of caregivers toward their patient illness. And how to enhance it using (practice deep breathing exercise, muscle relaxation, and time management.

Session 19: Focusing on important of follow up and community resources for treating patients with bipolar disorders

Session 20: post test

At the end of each session, the researchers make conclusion, take feedback from every caregiver. Also at the beginning of each next session the researchers review and discuss their knowledge about the previous session.

Approach of the researchers during the sessions :Leaving them expressing inner feelings freely, listening attentively to every subject, control the session, encouragement and involvement, constructive criticism and appraisal of achievement, encouraging speaking or stopping speaking to listen without interruption.

4. **Evaluation phase:** The pre-assessment tools were repeated again at the end of Psychosocial nursing intervention sessions (post-test), feedback of each session to measure the progress of the subject's awareness in relation to their knowledge about bipolar disorder, their positive and negative attitudes toward their patient's behaviors and their level of expressed emotion.

D- Limitation of the study

- Some family caregivers (n= 10) refused to participate in this study because they felt boredom from sharing in many researches and teaching classes before.
- Frequent interruption of the outpatient clinic due to unavailability of a suitable place for interview with the caregivers.

E. Ethical Considerations:

The researchers emphasized to caregivers that the study was voluntary and anonymous. Caregivers had the full right to refuse to

participate in the study or to withdraw at any time without giving any reason.

III. Administrative Design:

The researchers in order to obtain an approval to conduct the research study, the researchers received official permissions from the following authorities:

Responsible authorities at the General Secretariat for Mental Health, affiliated to Ain Shams University, the Ministry of Health, and the chairpersons of the nursing departments.

IV. Statistical Design:

The statistical analysis of data was done by using the computer software of Microsoft Excel Program and Statistical Package for Social Science (SPSS) version 22. Data were presented using descriptive statistics in the form of frequencies and percentage for categorical data, the arithmetic mean (X) and standard deviation (SD) for quantitative data. Qualitative variables were compared using chi square test (X²), P-value to test association between two variables and R- test to the correlation between the study variables.

Degrees of significance of results were considered as follows:

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

Results

Table (1): Represents that, three quarter of them (75%) were female and more than half (52.5%) of them were mothers' caregivers and married. Regards their age, it was found that, more than three quarters of them (80%) were in age ranged between 35 -<55 years with mean age of 46±5.6. In relation to their educational level, it was found that, two fifths (37.5%) of them from secondary school and (72.5%) of them were working and (55%) of them were not have enough income.

Table (2) shows that, two fifths (40%) of patient with bipolar disorder in age ranged from 25 - < 30years with mean age of 33.19 ±5.800. As regards to their sex, it was found that two thirds (60%) were female. Regarding educational level, more than one third (45%) of the patient with bipolar disorder are at secondary level of education of them and

working. Furthermore, the half of them (55%) were diagnosed with bipolar disorder since 1- <3 years and more than three quarter (77.5%) of them living in urban area. As evident from the table 32.5 % of the patients have been admitted to hospital twice times. (60%) of patients had two episodes of depressive episodes and half of them had manic episodes

As shown in this table (3), a post- psychosocial nursing intervention improvement has been observed in all expressed emotion subscale related to caregivers' towards their patients with bipolar disorder. The majority of caregivers became respondents to the patient's behaviors better than their responses as before psychosocial nursing intervention. There was a highly statistically significant difference in all expressed emotion subscale related to caregivers towards their patients with bipolar disorder (p <0.001).

Table (4): reveals that, more than three quarters (80%) of the studied caregivers have high levels of expressed emotions in pre - program. While, it was found that, there is improvements of this percentage in post - program to (37.5%). There was a highly statistically significant difference in the total scores of caregivers' expressed emotion towards their patients with bipolar disorder in pre and post program as evidence by (p <0.001).

Table (5) displays the comparison between levels of response to patient illness pre - post- psychosocial nursing intervention and indicates that there was marked reduction in high response to patient illness in post psychosocial nursing intervention among the studied family caregivers of patients with bipolar disorder. There was a highly statistically significant difference between family caregivers, level of responses to patient illness pre and post psychosocial nursing intervention as evidence by (P< 0.001).

Tables (6): shows a high positive correlation between expressed emotion and response to patient's illness post- psychosocial nursing intervention among the studied family caregivers of patients with bipolar disorder in which as evidence by (P <0.001).

Table (1): Distribution of family caregivers of patients with bipolar disorder under study according to their socio-demographics data (n=40).

Items	No.	%
Sex		
• Male	10	25
• Female	30	75
Age		
• 20-<35	6	15
• 35-<55	32	80
• ≥55	2	5
Mean + SD 46±5.6		
Consanguinity of caregivers		
• Father	6	15
• Mother	21	52.5
• Brother	1	2.5
• Sister	0	0
• Husband	2	5
• Wives	8	20
• Daughter	1	2.5
• Son	1	2.5
Marital status		
• Single	5	12.5
• Married	21	52.5
• Divorced	10	25
• widowed	4	10
Educational level		
• Read and write	7	17.5
• Primary school	8	20
• Secondary school	15	37.5
• High education	10	25
Occupation		
• Working	29	72.5
• Not working	11	27.5
Sufficiency of income		
• Enough	7	17.5
• Barely Enough	11	27.5
• Not Enough	22	55

Table (2): Distribution of patients with bipolar disorder under study according to their socio-demographics data (n=40).

Items	No	%
Age		
20 > 25 years old.	5	12.5
25 > 30 years old.	16	40
30 >35years old.	10	25
35 ≤ 40 years old.	9	22.5
Mean ± SD	33.19 ±5.800	
Sex		
Male	16	40
Female	26	60
Marital Status		
Single.	12	30
Married	19	47.5
Divorced	9	22.5
Educational level		
Read and write	5	12.5
Primary school	12	30
Secondary school	18	45
High education	5	12.5
Duration of illness		
1 <-3 years	22	55
3-<6y	13	32.5
6 y and more	5	12.5
Occupation		
Student	10	25
works	18	45
doesn't work	12	30
Residence		
Urban	31	77.5
Rural	9	22.5
Number of hospital admissions		
Once	5	12.5
Twice	13	32.5
Three times	10	25
≥four times	12	30
No episodes of major depression		
One	3	18
Two	26	60
≥ three	11	22
No episodes of manic episodes		
One	7	17.50
Two	12	30
≥ three	21	52.5

Table (3): Frequency Distribution of the studied family caregivers of patients with bipolar disorder according to their expressed emotion subscale pre and post psychosocial nursing intervention (No= 40)

Item	Pre-program				Post-program				X ²	P value
	High		Low		High		Low			
	No.	%	No.	%	No.	%	No.	%		
*Hostility	31	77.5	9	22.5	12	30	28	70	57.4	<0.001
*Criticism	33	82.5	7	17.5	10	25	30	75	44.6	<0.001
*Over-involvement	32	80	8	20	13	32.5	27	67.5	29.5	<0.001

Table (4): Relationship between Total levels of expressed emotions among family Caregivers of Patient with bipolar disorder in pre and post psychosocial nursing intervention (No= 40)

Item	Pre-program		Post-program		X ²	P-value
	No.	%	No.	%		
					39.5	< 0.01
High	32	80	15	37.5		
Low	8	20	25	62.5		

Table (5): Frequency Distribution of the studied family caregivers of patients with bipolar disorder according to their levels of response to the patient illness among family Caregivers of Patient with bipolar disorder in pre and post psychosocial nursing intervention (No= 40).

Item	Preprogram		Post program		X ²	P value
	no	%	no	%		
Low response to patient illness	0	0	2	5	25.4	0.001
Mild response to patient illness	7	17.5	15	37.5		
Moderate response to patient illness	10	25	14	35		
High response to patient illness.	23	57.5	9	22.5		

Table (6): Correlation between levels of expressed emotions and level response to the patient illness among family caregivers of patient with bipolar disorder in pre and post psychosocial nursing intervention (No=40).

Variable		Total level of response to illness			
		Pre		Post	
		r test	P value	r test	P value
Total expressed emotion levels	Pre	r =.123	0.000**		
	Post			r =.536	0.000

Discussion

Expressed emotion (EE) is a concept that describes a set of attitudes and behaviors (e.g., criticism, hostility, warmth, and emotional involvement) of relatives towards an ill person. Specifically, the components of EE that have been mainly investigated so far are critical comments/criticism (CC) and emotional over involvement (EOI). High EE may represent a maladaptive response to an illness. High levels of EE have further consistently been associated with psychiatric disorders, including bipolar disorder, depression, and mania, and also may contribute to an exacerbation of psychiatric symptoms (Philipp., Truttmann., Zeiler.,

Franta., Wittek., Schofbeck., and Mitterer 2020).

Concerning socio-demographic data related to family caregivers of patients with bipolar disorder, the finding of the present study revealed that, three quarter of caregivers under study were females and more than half of them were mothers and wives. This might be due to women have always been the traditional caregivers provide more hours of care and they are more likely to give assistance with personal hygiene, household tasks and meal preparation. Although women provide most of the care, and they frequently provide support and affection to the primary caregiver as they may be trusted

more in their ability to care for the patient with bipolar disorder who needs specific care.

This result in the same lines with a study done on another chronic illness by (Yadav, Parija, Yadav, Patel, & Mishra, (2018). They assess the “Burden and expressed emotion in caregivers of bipolar affective disorder-mania”, and found that most caregivers were female and mothers followed by equal percentages of wives of the patients.

This result was contradicting to a study carried out by Mohamed Moura, & Ata Abd El-Salihen, (2016). who studied the effects of counseling intervention on awareness and burden of family caregivers of patients with bipolar disorder and experienced that more than half of caregivers were male.

The results of the current study found that, more than three quarter of caregivers under study are in age ranged between 35 -< 55 years. This finding agrees with study Fristad et al., (2014), and found that age of more than half of caregivers in his study ranged between 30- < 50 years.

Results of the present study shows that, more than two thirds of caregivers of patients with bipolar disorder are working this result was in consistent with (Alosaimi, et al, 2019) whose study revealed that, more than half of the studied caregivers were unemployed. This result disagrees with (Hakulinen, et al 2019) whose study “Bipolar disorder and depression in early adulthood and long-term employment, income, and educational attainment” who stated that costs for the treatment of illness are often covered by insurance which did not affect the family income.

Results of the present study shows that, more than half of family caregivers of patients with bipolar disorder are not have enough income. From researcher point of view this may be due to that family play an essential role in supporting patient’s treatment costs which affects their enough income that required for continuous health care needs.

The present study result showed that, two fifth of patient with bipolar disorder in age ranged from 25 - < 30 years. This result was similar to a study carried out by (Schouws, Comijs, Dols, Beekman & Stek, 2016).

Whose study “Five-year follow-up of cognitive impairment in older adults with bipolar disorder”. Who reported that, bipolar disorder diagnosis is typically between the ages of 20-30 years.

Meanwhile, this result disagrees with (Hegazy et al, 2021). who studied " Quality of Life among Patients with Bipolar Disorder "and found that, two fifths of patient understudy were in age from 35-40years old.

Also, this result is contradicted with the finding of, (Arafa, et al, 2021) who carried out a study entitled “the findings of the Effect of Caregiver’s Expressed Emotions on Clinical Outcomes of Patients with Bipolar Disorder and cleared that less than half of patients with bipolar disorder were in the age group of 18-25 years.

The present study result showed that, two thirds of patient with bipolar disorder are female. These results are supported with (Allah Mohsen Zaki, 2020) who studied burden and coping patterns among family caregivers of patients with bipolar disorder and found that, more than two fifth of patients with bipolar disorder are males.

Concerning educational level, the result of the current study shows that, more than one third of the patient with bipolar disorder are at secondary level of education. These results could be due to the illness complication which affects the patient attention; concentration and intellectual deficits that occurs in euthymic bipolar disorder (BD) patients. The symptoms of bipolar disorder can heavily impact ability to study and complete coursework – it’s difficult to stay focused when the patient is in the middle of a manic or hypomanic episode. Although the deficit is occurred in the cognitive domains, e.g., executive function, attention, and verbal memory.

In relation to the occupation of the patients of the current study, it was found that, more than two fifth of them were employed. This can be attributed to the nature of the illness which needed appropriate income to cover the high cost of treatment.

These results are agreement with Zaki, Awaad, Elbatrawy, Elmissiry, & Zahran, (2014) who carried out a study entitled

“Effectiveness of a behavioral family psycho-educational program for Egyptian patients with bipolar disorder and their caregivers” and revealed that three fifths of the studied patients were working, also two fifths of them finished higher education.

But, these results disagree with **Marimbe, et al., (2016)**, who carried out a study to assess “Perceived burden of care and reported coping strategies and needs for family caregivers of people with mental disorders” and mentioned that less than half of studied participants had basic education. Also, nearly three quarters of them were unemployed.

Expressed emotion among family caregivers pre and after intervention

The result of the present study indicates the most of family caregivers in pretest had high level of expressed emotion. this may be related to many factors; they had been suffers from burden of care patients, suffering from stigma of illness due to abnormal patient behavior , lack of support from community as well as they have a lack of skills to manage patient illness .

All this factors lead to family members to be over involvement and more critical patient behavior this result is agreement with (**Parija, Yadav, Sreeraj, Patel, & Yadav, 2018**). Investigate and compare the caregiver burden and expressed emotion in caregivers of patients with schizophrenia and bipolar affective disorder and found that Emotional over-involvement (EOI) was significantly more in patients with bipolar affective disorder.

Also this result is similar with **Sharma, (2016)** done study to correlate Expressed Emotions among caregivers of patients with Bipolar disorder. The result show that the highest domain in expressed emotion were critical, which lead to hostility toward patient.

The result of the present study explains that there was highly significant difference between pre and posttest and there was a noticeable reduction in expressed emotions domains at posttest. This result revealed that the family caregivers gain adequate knowledge and ways about how to manage patients' illness and they are practice skills of communication,

relaxation and problem solving which led to improvement psychological status.

This result is the same line with (**Philipp, et al., 2020**) analyzed whether EE is reduced by the “Supporting Careers of Children and Adolescents with Eating Disorders in Austria” (SUCCEAT) intervention (workshop and online) and found that EE was significantly reduced after participating in the SUCCEAT intervention or a specialized family intervention and that this reduction remained in the long term.

Response to patient illness among family caregivers pre and after intervention

The result revealed that there was a significant improvement in family caregivers' response to the patient illness. this may be due to through implementation a psychosocial nursing intervention., the family caregivers, have been accept patient behavior and understand how to deal with patient symptoms additionally they gain knowledge about the nature , prognosis about bipolar disorders , have been able realize the importance of compliance with treatment, and practice some hobbies to lessen burden of caring.

This result is consistent with (**Arafa, Ahmed, Mahmoud and Abdel-Baseer, 2021**) they assess the effect of caregiver's expressed emotions on clinical outcomes of patients with bipolar disorder. They result denotes that more half of family caregiver had a mild response to patient illness, and they confirm psychosocial nursing intervention that significantly lowered the caregivers' expressed emotion of bipolar disorder and significantly increased their awareness of illness which enhance their response to illness of their patients with bipolar disorder .

Conclusion

According to the results of this study, it can be concluded that .This reduction in caregivers' expressed emotions and enhancement caregivers response to patient illness justified the research hypothesis and reflected the positive effect of the psychosocial nursing intervention program.

Recommendation

- Counseling clinic for caregivers of patients with bipolar disorder is needed to offer appropriate information and support through open dialogues between caregivers and health professionals in order to plan for intervention and guide families to know how to deal with their patient's problems and disabilities.
- Further studies are needed to examine the effects of family psycho-psychosocial nursing intervention on how caregivers avoid factors related to increase their levels of expressed emotion.
- Nursing intervention program emphasis on enhancing Knowledge, attitude, and practice of caregivers of patients with bipolar disorder to enhance their responses to the patient illness.
- Designing a systematically continuous family intervention programs in psychiatric hospitals that provide psychological support for caregivers.

References

- ABO-ALMAGD S.M.(1993).** Psychiatric assessment of families in schizophrenic patients. Unpublished Doctorate Thesis, Faculty of Medicine, Cairo University, 1993.
- Addington, J., Addington, D., Jones, B., & Ko, T. (2001).** Family intervention in an early psychosis program. *Psychiatric Rehabilitation Skills*, 5(2), 272-286.
- Allah Mohsen Zaki, M., Abdel-Hamid Zaki, R., & Mohammed Ibrahim Morsi, F. (2020).** Burden and Coping Patterns among Family Caregivers of Patients with Bipolar Disorder. *Egyptian Journal of Health Care*, 11(4), 994-1008.
- Alosaimi, F. D., AlAteeq, D. A., Hussain, S. I. B., Alhenaki, R. S., Salamah, A. A. B., & AlModihesh, N. A. (2019).** Public awareness, beliefs, and attitudes toward bipolar disorder in Saudi Arabia. *Neuropsychiatric Disease and Treatment*, 15, 2809.
- Arafa Mohammed, O., Ahmed Abd El-Latief, S., Mahmoud Zaki, M., & Abdel-Baseer Mahmoud, D. (2021).** Effect of Caregiver's Expressed Emotions on Clinical Outcomes of Patients with Bipolar Disorder. *Journal of Nursing Science Benha University*, 2(2), 601-617.
- Chen, Y. C., Kao, C. F., Lu, M. K., Yang, Y. K., Liao, S. C., Jang, F. L., ... & Kuo, P. H. (2014).** The relationship of family characteristics and bipolar disorder using causal-pie models. *European Psychiatry*, 29(1), 36-43.
- Cole, J. D., & Kazarian, S. S. (1988).** The level of expressed emotion scale: a new measure of expressed emotion. *Journal of Clinical Psychology*, 44(3), 392-397.
- Fristad, M. A., & MacPherson, H. A. (2014).** Evidence-based psychosocial treatments for child and adolescent bipolar spectrum disorders. *Journal of Clinical Child & Adolescent Psychology*, 43(3), 339-355.
- Gerlsma, C., Van der Lubbe, P. M., & Van Nieuwenhuizen, C. (1992).** Factor analysis of the level of expressed emotion scale, a questionnaire intended to measure 'perceived expressed emotion'. *The British Journal of Psychiatry*, 160(3), 385-389.
- Hakulinen, C., Musliner, K. L., & Agerbo, E. (2019).** Bipolar disorder and depression in early adulthood and long-term employment, income, and educational attainment: A nationwide cohort study of 2,390,127 individuals. *Depression and anxiety*, 36(11), 1080-1088.
- Hegazy, T. F. F., Mourad, G. M., & Zaki, R. A. H. (2021).** Quality of Life among Patients with Bipolar Disorder. *Egyptian Journal of Health Care*, 2021 EJH Vol 12. no.3.
- Hower, H., Lee, E. J., Jones, R. N., Birmaher, B., Strober, M., Goldstein, B. I., ... & Yen, S. (2019).** Predictors of longitudinal psychosocial functioning in bipolar youth transitioning to

- adults. *Journal of affective disorders*, 246, 578-585.
- Marimbe, B. D., Kajawu, L., Muchirahondo, F., Cowan, F., & Lund, C. (2016).** Perceived burden of care and reported coping strategies and needs for family caregivers of people with mental disorders in Zimbabwe. *African journal of disability*, 5(1), 1-9.
- Mohamed Moura, G., & Ata Abd El-Salih, F. (2016).** Effects of Counseling Intervention on Awareness and Burden of Family Caregivers of Patients with Bipolar Disorder. *Egyptian Journal of Health Care*, 7(4), 170-188.
- Mohamed, Z., Mahmoud, A., & Al-Momen, Z. (2017).** Relationship between caregiver's expressed emotions and patient's symptoms severity among schizophrenic patients: A comparative study. *Journal of Health, Medicine and Nursing*, 37(3).
- Mukherjee, S. (2017).** Impact of psycho-education on burden and other correlates of caregivers of patients suffering from bipolar mood disorder. *Indian Journal of Positive Psychology*, 8(1), 87.
- Parija, S., Yadav, A. K., Sreeraj, V. S., Patel, A. K., & Yadav, J. (2018).** Burden and expressed emotion in caregivers of schizophrenia and bipolar affective disorder patients: A comparative study. *MAMC journal of medical sciences*, 4(2), 68.
- Perlick, D. A., Miklowitz, D. J., Lopez, N., Chou, J., Kalvin, C., Adzhiashvili, V., & Aronson, A. (2010).** Family-focused treatment for caregivers of patients with bipolar disorder. *Bipolar disorders*, 12(6), 627-637.
- Philipp, J., Truttmann, S., Zeiler, M., Franta, C., Wittek, T., Schöffbeck, G., ... & Karwautz, A. F. (2020).** Reduction of high expressed emotion and treatment outcomes in anorexia nervosa—caregivers' and adolescents' perspective. *Journal of clinical medicine*, 9(7), 2021.
- Ramírez, A., Palacio, J. D., Vargas, C., Díaz-Zuluaga, A. M., Duica, K., Berruecos, Y. A. & López-Jaramillo, C. (2017).** Expressed emotions, burden and family functioning in schizophrenic and bipolar I patients of a multimodal intervention programme: PRISMA. *Revista Colombiana de Psiquiatría (English ed.)*, 46(1), 2-11.
- Reinares, M., Bonnín, C. M., Hidalgo-Mazzei, D., Sánchez-Moreno, J., Colom, F., & Vieta, E. (2016).** The role of family interventions in bipolar disorder: A systematic review. *Clinical psychology review*, 43, 47-57.
- Sazvar, S. A., Nouri, R., Saei, R., & Hatami, M. (2017).** Impact of acceptance and commitment-based psychoeducation on the adjustment of expressed emotion in families of patients with bipolar disorder. *Feyz Journal of Kashan University of Medical Sciences*, 21(3), 265-271.
- Schouws, S. N., Comijs, H. C., Dols, A., Beekman, A. T., & Stek, M. L. (2016).** Five-year follow-up of cognitive impairment in older adults with bipolar disorder. *Bipolar disorders*, 18(2), 148-154.
- Scott, S., & Campbell, C. (2000).** Expressed emotion about children: reliability and validity of a Camberwell Family Interview for Childhood (CFI-C). *International Journal of Methods in Psychiatric Research*, 9(1), 3-10.
- Sharma, A., Nehra, R., & Grover, S. (2020).** Correlates of expressed emotions as perceived by patients with bipolar disorder. *International Journal of Social Psychiatry*, 0020764020966633.
- Sharma, N., Chakrabarti, S., & Grover, S. (2016).** Gender differences in caregiving among family-caregivers of people with mental illnesses. *World journal of psychiatry*, 6(1), 7.
- Shields, C. G., Franks, P., Harp, J. J., Campbell, T. L., & McDaniel, S. H. (2007).** Family Emotional Involvement and Criticism Scale (FEICS) 1992.

- Vaughn, C., & Leff, J. (1976).** The measurement of expressed emotion in the families of psychiatric patients. *British journal of social and clinical psychology*, 15(2), 157-165.
- World Health Organization. (2017).** *Helping people with severe mental disorders live longer and healthier lives: policy brief* (No. WHO/MSD/MER/17.7). World Health Organization.
- Yadav, A. K., Parija, S., Yadav, J., Patel, A. K., & Mishra, P. (2018).** Burden and expressed emotion in caregivers of bipolar affective disorder-mania: A cross-sectional study. *Journal of Psychosocial Rehabilitation and Mental Health*, 5(1), 83-88.
- Yadav, A. K., Parija, S., Yadav, J., Patel, A. K., & Mishra, P. (2018).** Burden and expressed emotion in caregivers of bipolar affective disorder-mania: A cross-sectional study. *Journal of Psychosocial Rehabilitation and Mental Health*, 5(1), 83-88.
- Zaki, N., Awaad, M., Elbatrawy, A., Elmissiry, M., & Zahran, N. (2014):** Effectiveness of a behavioral family psychoeducational program for Egyptian patients with bipolar disorder and their caregivers. *Middle East Current Psychiatry*, 21(4), 212-221.