- ***Basic Research***

Social Support, Coping with Stress and Medication Compliance among Patients with Bipolar Disorder.

Saida I. El-Azzab[1], Shimaa M. Ali[2].
1Assistant Professor of Psychiatric/Mental Health Nursing, 2. Lecturer of Psychiatric/Mental Health Nursing, Faculty of Nursing, Beni-Suef University.
. E-mail address: saida_hassan@yahoo.com.Orcid ID:
https://orcid.org/0000-0002-8615-8591

Abstract

Background: Bipolar disorder is a disease that causes severe disability, needs more social supports, and has many problems regarding medication compliance and coping with stress. **Aim:** To examine the relation between social support, coping with stress, and medication compliance among patients with bipolar disorder. **Methods:** A descriptive correlational research design was utilized in this study. **Setting**: This study was conducted at the outpatient Department of Psychiatric Hospital is affiliated to the Ministry of Health at Beni-Suef Governorate, Egypt. **Sampling: A** purposive sample of eighty psychiatric patients medically diagnosed with bipolar disorder were recruited in this study. **Tools**: Composed of four parts: Socio-demographic and medical data sheet, Drug Attitude Inventory Questionnaire, Multidimensional Scale of Perceived Social Support, and the Brief-Coping Scale. **Results:** The findings of this study verified that more than two-thirds of the sample had negative attitudes regarding medication compliance. The outcomes stated that one-third of the participants had poor friends' support. Also, the findings demonstrated that, the total score of the studied patients' perception of their social support about one-half of them had poor social support. **Conclusion:** The results demonstrated that a highly positive significant relationship between social support and coping with stress among patients with bipolar disorder. **Recommendations:** The patients with bipolar disorder need a psycho-educational program to use a coping strategy with stress, social support and how to deal with medication to increase medication compliance and improve their quality of life.

Keywords: Social Support, Coping, Medication Compliance, Bipolar Disorder.

Introduction:

Bipolar disorder is dangerous, chronic psychiatric disorder characterized by alternating combinations of depressive and manic or episodes of hypomania or mania and depression, features. The prevalence is estimated to be 3% to 7% [(1)]. Bipolar disease causes a significant burden on patients, their families, and the society at huge. It is described by feeling swings in two polarities, depressive and manic, and heterogeneous symptoms, containing physical, affective, and cognitive alterations [(2)]. Bipolar disorder is an illness which causes severe disability [(3)]. The course and progression of illness can be different widely amongst patients. Nevertheless, a frequently seen aspect is the difficulty in readjusting properly to the social environment. This occurs because of the negative influences of bipolar disorder has on the overall functioning of the individual, including distresses in interpersonal relationships, low life satisfaction and difficulty in the workplace [(4)].

Bipolar disorder treatment is required to be taken for preventing the frequency and intensity of attacks, to avoid unfavorable psychosocial consequences, to reduce recurrence and mortality rates due to associate diseases and to improve functionality between outbreaks [(5)]. While pharmaco-therapy is the recommended first-line therapy for depressive, manic, and residual conditions; medication compliance is typically poor, relapse rates are high, and full remission is not always accomplished [(6)]. Noncompliance to treatment means patients do not carry out the clinical recommendations of a treating physician [(7)]. Noncompliance with drug treatment is a commonly encountered problem with bipolar patients. Medication noncompliance rate varies from 20% - 60% of bipolar disorder patients [(8)]. Drug noncompliance affects patient identified with bipolar disorder to has worse life quality, increased costs of care, risen hospitalization frequency, and high mortality, depressive attacks, suicide, functional deterioration in addition to treating disorders and signs [(9)].

Patient methods of stress and coping may be listed as a cause affecting the medication compliance. The relationship between mood and stress is known for years. Environmental events are acknowledged as potential triggers of depressive outbreaks. It is known that many severe stressors occur before depressive attacks by a chronic stressful lifestyle with stressing events may lead them. Stress factors play a role in the manic attack development, and recurrence is 4.5 doubles increased in patients with high stress levels [(10)].

Social support for patients with bipolar disorder indicated that it is possible to mitigate the negative impact of life's stress-causing events, including the

symptoms brought about by the illness. The deficiency of support from third sides is a risk cause for symptom relapse and results in a lack of prognoses for mental disorders. Simultaneously, the set of dysfunctional symptoms, such as intolerance, irritability and arrogance exist in the acute stages of mania or hypomania, decreases one's capacity in maintaining the capability to deal with others and consequently, may contribute to the reduction of social support [11]. Appropriate social support will satisfactorily affect health protection and improvement, treatment, and rehabilitation of illness managements, so they will support patient compliance with the disease and decline social isolation, also patient's life quality is increased deficiency of familial and social supports reason compliance problems, and adverse effects on treatment [12].

Significance of the Study:

Noncompliance to medications remains one of the largest challenges which makes psychiatric illness treatment a wasteful and ineffective. Egyptian study of elements leading to relapse between patients with mental illness revealed that 50% of participants reject to take their medications while they are outside the hospital and stop taking medications by themselves [13]. Patients with bipolar disorder, who face various obstacles in social interactions and need continuous social assistance both in the remission and attack times, social relations are especially critical [14]. Concerning bipolar disorder and social support, family support and friends appears to have constructive consequences in preventing a relapse, also better treatment obedience and improved effort of the individual. While there are satisfactory empirical outcomes confirming the position that acceptable social support affords beneficial outcomes [15]. Coping with stress is a basic theoretical model that is utilized in evaluating social support. Social support is approved as a defense mechanism against stressful situations, and it positively affects strengthening and coping with the disease. A reduction in patients' social support will cause a disturbance in regular practitioner control and a negative effect on drug adherence [16].

Psychiatric nurses' support includes educating patients and their relatives about how to cope with illness, the significance of drug compliance, following up with patients, and strengthening the social support ties between patients and their family members [17]. Basic responsibilities of nurses caring for patients with bipolar disorders are to provide a safe environment, meet physiologic needs, improve self-esteem, and guide patients about socially suitable behavior [18]. It is very essential to notify patients and their relatives by nurses concerning the disorder and medication alternatives and to meet their needs and support during

this period [19]. Nursing care planning for patients' needs in relation to a complete encompassing of the patients' and their relatives' care may increase the effectiveness of nursing care [20].

However, there were few studies in the literature investigating whether social support is a factor affecting drug compliance in patients with bipolar disorder. Currently, research on increasing compliance to reduce the cost of medication and health services and to enhance the quality of life has gained greater significance. Most of the previous studies focus on other aspects related to medication compliance of patients with bipolar disorder, consequently, the present study is conducted to shade light on the relation between social support, coping with stress and medication compliance of patients with bipolar disorder. Moreover, it is hoped that this study might help psychiatric patients to cope with stress and improve compliance with psychotropic medication. The purpose for conducting this study is lacking studies done in our country about examining the relation between social support, coping with stress and medication compliance among patients with bipolar disorder.

Aim of the Study:

- This study was aimed to examine the relation between social support, coping with stress and medication compliance among patients with bipolar disorder.

Research Questions:

- What are the types of relationship between social support, coping with stress and medication compliance among patients with bipolar disorder?

Subjects and Methods:

Design: Descriptive correlational design was utilized in this study.

Setting: The study was held at the Outpatient Department of Psychiatric Hospital. It was Governorate hospital. It was associated to the Ministry of Health at Beni-Suef Governorate, Egypt. The mental health service in this hospital provided free services for rural and urban for all age groups. Care was provided by a multidisciplinary team, psychiatrists, social workers, psychologists, and nurses. The hospital has 130 beds, 100 patients, 87 nurses.

Participants: A purposive sample of 80 psychiatric patients, medically diagnosed as bipolar disorder was recruited in this study.

Inclusion criteria: Psychiatric patients diagnosed with bipolar disorder and agreed to contribute to the study, both genders, had the ability to communicate in a relevant and coherent manner.

Exclusion Criteria: All patients with organic brain syndrome, mental retardation, difficulties in communication, patients with schizophrenia; major depression disorder; addiction and neurological disorders.

The sample size: Was statistically calculated by using the equation of Steven Thompson equation at 95% confidence power.

$$n = \frac{N \times P(1-P)}{\{(N-1 \times (d^2/z^2)) + P(1-P)\}}$$

Where:
n = Sample size
N = Total psychiatric nurse's size
d = Error percentage
P = Percentage of availability of the character and objectivity
Z = The corresponding standard class of significance 95%= (1.96)
The sample size was calculated to be 80 psychiatric nurses.

Tools of Data Collection: composed of four parts: -

Part I: Socio-demographic and medical data sheet: It was developed by the researchers and covered the following items: Age, gender, marital status, history of illness date of admission, and duration of illness, etc**...**

Part II: Drug Attitude Inventory "DAI-10" Questionnaire: The scale was developed by **Awad (**1993) [(21)], adopted by the researchers to determine compliance with drug among patients with bipolar disorder. It contained of 10-items; it was planned to measure the patient's attitude towards medication compliance. Scoring system: A patient was asked to reply either by 'YES' or 'NO' to each item. To determine the score from a collection of answers, each "positive" answer gets a score plus one, and every "negative" answer gets a score of minus one. The 'positive' answers scored by plus one, as shown in items 1,3,4,7,9,10, a "YES" response is a clue to adherence; on the other hand, for 2, 5, 6, 8, a "NO" answer is an indication to adherence and consequently should be coded as "1". For example, the response of 'True' would score "minus one" and the response of 'False' would score "plus one". The total score for each patient is considered as the sum of the positive scores, minus the negative scores. A positive total score showed a positive subjective reply (adherent), and a negative

total score signposts a negative subjective answer (non-adherent). In the current study, the score measured as follows less than (< 60%) indicated negative attitude medication compliance, while a score of (≥ 60%) indicated positive attitude medication compliance.

Part III: Multidimensional Scale of Perceived Social Support (MSPSS): It was developed by **Zimet et al. (**1988)[22], It has been displayed to be reasonably free of social desirability bias. It contained of 12-items, it measures three sources of support: family support, friends support, and significant others support. The scale comprises of three subscales each addressing a different source of support and measured by four items. Family (items 3, 4, 8, and 11), significant others (items 1, 2, 5, and 10), and friends (items 6, 7, 9, and 12). The family support contains children, siblings, parents and wife or husband. The support from significant others includes special partner, service staffs, organizations and/or neighbors. Responses are made on 7-point Likert scale ranging from very strongly agree (7) to very strongly disagree (1). The minimum and maximum score that can be acquired from each total score are 12 and 84 respectively, and 4 and 28 respectively for each subscale. A total score of the scale; 12-35 is taken as poor perceived social support, 36-59 as moderate and 60-84 as high perceived social support. A total score of the subscales; 4 - 11 is taken as poor, 36 - 59 as moderate and 60 - 84 as high.

P**art IV: The Brief-Coping Scale**: It was developed by **Carver (**1997) [23] as a short version adapted from the original 60 items of coping scale [24]. It consisted of 28-item. Replies are made on a four-point Likert scale ranging from "I usually don't do this at all (0), I usually do this at all (3)". It was existed in the two overarching coping styles**: I- Avoidant Coping:** Which is described by the subscales of substance use, venting, behavioral disengagement, denial, self-blame, and self-destruction. Avoidant coping is related to worse physical health among persons with medical conditions. Associated to approach coping, avoidant coping is displayed to be less effective at handling anxiety. **II- Approach Coping:** Which was characterized by the subscales of active coping, planning, acceptance, positive reframing, seeking informational support, and seeking emotional support? Approach coping is connected to more useful replies to difficulty, better physical health outcomes, containing the adaptive practical modification, and more stable emotional responding.

Scores are also accessed for each of the following subscales. Self-distraction, items 1 and 19 (Avoidant). Active coping, items 2 and 7 (Approach). Denial, items 3 and 8 (Avoidant). Substance use, items 4 and 11 (Avoidant).

Emotional support, items 5 and 15 (Approach). Practice of informational support, items 10 and 23 (Approach). Behavioral disengagement, items 6 and 16 (Avoidant). Venting, items 9 and 21 (Avoidant). Positive reframing, items 12 and 17 (Approach). Planning, items 14 and 25 (Approach). Acceptance, items 20 and 24 (Approach). Self-blame, items 13 and 26 (Avoidant). Humor items 18 and 28. Religion, items 22 and 27. Religion and humor are neither approach nor avoidance coping. A total score of the scale; 0-27 is taken as poor coping, 28 - 55 as moderate and 56-84 as high coping. A total score of the subscales; 0 - 2 is taken as poor, 3 - 4 as moderate and 5 - 6 as high.

Content validity:

The researchers tested the content validity of the tools before starting the data collection. The tools were translated into the Arabic language by using the translation and back-translation technique to confirm their original validity and verified for their content. It was done by a jury of five experts in psychiatric nursing professional. The recommended modifications were made.

Reliability was done by Cronbach alpha coefficient test which revealed that each item of the utilized tools consisted relatively homogenous items. The internal consistency of medication adherence rating scale was 0.82, multidimensional scale of perceived social support (MSPSS) was 0.767, and the brief-coping scale was 0.79.

Procedures:

Official letter to carry out the study was issued from the Dean of Faculty of Nursing and submitted to the directors of the known study setting to take their agreements to collect data. All of the authorized people provided needed knowledge about the significance and the goal of the study. The patients who met the inclusion criteria were approached by the researchers to fill the questionnaires corresponding to the following: The researchers started data collection by introducing themselves to the patients. Oral consent was obtained from uneducated patients and written consent to participate in the study was acquired from educated patients. The researchers distributed the tools of the study, after a full explanation of the aim and the scope of the study, it distributed on an individual basis as the initial baseline assessment to examine the relationship between social support, stress coping, and medication compliance among patients with bipolar disorder. The researchers helped the patients who could not fill the

tools. The researchers visited the psychiatric hospital from 9 a.m. to 2 p.m. two days (Saturday and Monday) per week. Data collection completed through interviewing with the patients at psychiatric hospital outpatient's department, each interview lasted for 15-30 minutes depending on the response of the interviewer. Data were collected throughout five months from the beginning of Augustus of 2020 to end of December of 2020.

Pilot Study:

It was done to evaluate the clarity and applicability of the questionnaire, also the time required to fulfill each sheet, to establish the relevance and comprehensiveness of the items. It was conducted in a sample of 8 patients. According to its results, no modification was made, and they were included in the actual sample of the study.

Statistical Analysis:

Patients' responses to each category were analyzed, classified, and coded by investigators then tabulated distinctly using the Statistical Package for Social Science (SPSS) version 21. Descriptive statistics were calculated as percentage, mean, frequency and stander deviation. It was analyzed by t-test and Pearson correlation was also used among the studied variables. Probability (P-value) less than 0.05 is considered significant and less than 0.001 is considered highly significant.

Ethical Considerations:

After the permission to carry out the study, the goal of the current study was explained to every interviewed patient with bipolar disorder (males & females). Patient has the ethical right to agree or refuse contribution in the study, verbal consent or written consent to participate in the study was acquired from patients, they are knowledgeable that the information gained will be confidential and used only for the purpose of this study and there was not any danger for their participation. As well, each patient has the right to withdraw from the study at any time without any rationale.

Results:

Table (I) showed the socio-demographic and medical data of the studied sample. It represented that (62.5%) of the patients were males. Nearly one-half of the studied patients (52.5%) aged between 31 to less than 40 years, with (Mean±SD = 34.70 ±7.14). Also, nearly one-half of them were not working. Regarding the patients' lives with his/her family, (73.8%) of them live with their families. More than one half of them (57.5%) had one to four family members,

with (Mean± SD = 4.58 ± 2.16). As well, the duration of illness by years (57.75%) of patients were from one to five years, with (Mean±SD= 3.86 ± 2.43). Concerning the number of previous visits to the hospital, nearly two-thirds of them (61.25%) were admitted from one to two times, with (Mean± SD = 0.98 ± 1.21).

Table (II) clarified the distribution of the number and percentage of patients' attitudes toward medication compliance. The findings demonstrated that more than two-thirds of the sample (67.6%) had negative attitudes regards medication compliance.

Table (III) revealed the distribution of the number and percentage of the studied sample in relation to coping with stress. The outcomes of the study showed that (66.25%) of patients had moderate coping with stress, (77.50%) of them had poor planning and (80%) had a poor coping using substance as a method of coping strategy with stress.

Table (IV) presented the distribution of the number and percentage of studied patients' perception of their social support. The findings showed that (61.25%) of the participating patients had poor friends' support. As regards the total score of studied patients' perception of their social support about one-half of them (51.25%) had poor social support.

Table (V) explained the comparison between coping with stress scale, and social support mean points according to attitude of medication compliance. The outcome discovered that there were no statistically significant differences between coping with stress scale, and social support mean points according to attitude of medication compliance.

Table (VI) revealed that there were highly significant relationship between family support, friends support, perceived social support total scores, coping with stress total scores, and significant other support (at $p \leq 0.000$). As well, there was highly positive significant relationship between friends' support, perceived social support total scores and family support (at $p \leq 0.000$). Also, there was highly significant relationship between friends' support and total scores of perceived social supports (at $p \leq 0.000$). The findings discovered that there were positive significant relationships between family support, perceived social support total scores and coping with stress total scores (at $p \leq 0.018$, $p \leq 0.002$) respectively.

Table (VII) showed that, there was a highly positive significant relationship between perceived social support and marital status. Otherwise, there

were negative significant relationships between occupation, marital status, living with family, number of previous visits to the hospital, and medication compliance (at $p \leq 0.044$, 0.001, 0.017, 0.026) respectively. Also, there was negative significant relationship between and living with family and coping with stress.

Table (I): Distribution of the Socio-demographic and medical data of the studied patients (n = 80).

Variables	No	Percentage
Age:		
Less than 20	0	0.0
20-30	20	25.0
31- 40	42	52.5
More than 40	18	22.5
Mean ± SD	**34.70 ± 7.14**	
Gender		
Male	50	62.5
Female	30	37.5
Level of education:		
Illiterate	25	31.2
Primary	39	48.8
Secondary	16	20.0
University	0	0.0
Marital status:		
Single	32	40.0
Married	23	28.8
Divorce	17	21.2
Widow	8	10.0
Occupation:		
Not working	42	52.5
Working	38	47.5
Do you live with your family?		
Yes	59	73.8
No	21	26.2
Number of family members:		
1-4	46	57.5
5-8	34	42.5
Mean ± SD	**4.58 ± 2.16**	
Duration of illness by years:		
1-5	47	57.75
6-10	33	41.95
Mean ± SD	**3.86 ± 2.43**	
Number of previous visits to the hospital:		
1-2	49	61.25
3-4	31	38.75
Mean ± SD	**0.98 ± 1.21**	

Table (II): Distribution of Number and Percentage of patients' attitude of medication compliance (n = 80)

Medication Compliance "DAI-10"	No	%
Positive attitude	26	32.4
Negative attitude	54	67.6

Table (III): Distribution of Number and Percentage of Studied Sample Coping with Stress (n = 80).

Coping with stress	Poor		Moderate		High	
	No	%	No	%	No	%
Active Coping	45	56.25	26	32.50	9	11.25
Planning	62	77.50	13	16.25	5	6.25
Positive Refraining	56	70.00	22	27.50	2	2.50
Acceptance	34	42.50	38	47.50	8	10.00
Humor	42	52.50	25	31.25	13	16.25
Religion	33	41.25	21	26.25	26	32.50
Using Emotional Support	48	60.00	30	37.50	2	2.50
Using Instrumental Support	47	58.75	27	33.75	6	7.50
Self-Distraction	35	43.75	39	48.75	6	7.50
Denial	46	57.50	21	26.25	13	16.25
Venting	36	45.00	26	32.50	18	22.50
Substance Use	64	80.00	14	17.50	2	2.50
Behavioral Disengagement	35	43.75	36	45.00	9	11.25
Surf-Blame	23	28.75	22	27.50	35	43.75
Coping with stress total scores	24	30.00	53	66.25	3	3.75

Subscales: Poor: 0 - 2, Moderate: 3 - 4, High: 5-6, Total Scale: Poor 0 - 27, Moderate: 28 - 55, High: 56 - 84.

Table (IV): Distribution of Number and Percentage of Studied Patients' Perception of their Social Support (n = 80).

Social support scale	Poor		Moderate		High	
	No	%	No	%	No	%
Significant others support	36	45.00	39	48.75	5	6.25
Family support	33	41.25	22	27.50	25	31.25
Friends' support	49	61.25	24	30.00	7	8.75
Total score	41	51.25	32	40.00	7	8.75

Subscales: Poor: 4 - 11, Moderate: 12 – 19; High: 20 - 28, Total Scale: Poor 12 - 35, Moderate: 36 - 59, High: 60 - 84.

Table (V): Comparison between coping with stress, and social support mean points according to attitude of medication compliance (n = 80).

Variables	Medication Compliance				t-test	P-value
	Positive attitude (n = 26)		Negative attitude (n = 54)			
	Mean	SD	Mean	SD		
Social support						
Significant others support	1.50	0.71	1.67	0.55	1.16	0.25
Family support	1.81	0.90	1.94	0.83	0.67	0.50
Friend's support	1.65	0.75	1.39	0.60	1.71	0.09
Perceived social support total score	1.58	0.76	1.57	0.60	0.02	0.99
Coping with stress total scores	33.62	10.05	35.15	11.31	0.59	0.56

Table (VI): Relationship between social support, coping with stress, and attitude of medication compliance (n = 80).

	Significant other support		Family support		Friend's support		Perceived social support total scores		Medication Compliance total scores	
Variables	r	p	R	p	r	p	r	p	r	p
Family support	0.440	0.000**								
Friend's support	0.565	0.000**	0.654	0.000**						
Perceived social support total scores	0.636	0.000**	0.790	0.000**	0.775	0.000**				
Medication Compliance total scores	0.189	0.093	0.053	0.639	-0.085	0.455	0.039	0.731		
Coping with stress total scores	0.454	0.000**	0.264	0.018*	0.189	0.094	0.336	0.002**	0.051	0.650

* Significant at $p \leq 0.05$ ** Highly significant at $p \leq 0.01$

Table (VII): Relationship between the studied variables, socio-demographic and medical characteristics of the studied subjects (n = 80).

Variables	Medication Compliance		Perceived social support		Coping with stress	
	r	p	r	p	r	p
Age	0.008	0.947	- 0.098	0.389	- 0.005	0.965
Gender	- 0.169	0.133	0.162	0.151	- 0.109	0.337
Education	0.196	0.082	- 0.051	0.653	- 0.007	0.952
Occupation	- 0.226	0.044*	0.289	0.009**	- 0.127	0.263
Marital status	- 0.376	0.001**	0.183	0.103	- 0.163	0.149
Living with family	- 0.267	0.017*	0.029	0.797	- 0.249	0.026*
Family members	0.014	0.902	0.091	0.423	0.070	0.537
Duration of illness	- 0.205	0.068	0.101	0.371	0.035	0.758
Number of previous visits to the hospital:	-0.248	0.026*	0.140	0.215	0.103	0.365

* Significant at $p \leq 0.05$

** highly significant at $p \leq 0.00$

Discussion:

Bipolar disorder has extremely adverse effects on functioning in approximately all life domains, including the ability to work [25]. The greatest likely factor to predict psychiatric patients' compliance to drug is the positive attitude toward drug [26]. Additionally, it is hard to deny the role of social assistance play in adherence to treatment in psychiatric patients. As the existence of social support is a positive factor in the recovery of disorder, it should support patients to adhere to medication [27]. Many severe stressors plus prolonged stress with stressful life events cause episodes of depression. It is believed that accepting the reality of the diagnosis and acquiring a positive attitude towards treatment is essential for successful adaptation and recovery [28]. Hence, the goal of

the present study was to examine the relation between social supports, coping with stress and medication compliance among patients with bipolar disorder.

The findings of present study demonstrated that more than two-thirds of patients had negative attitudes regarding medication compliance. The findings might be attributed to the side and adverse effects of psychotropic medication. In the same respect, **Amr, El-Mogy and El-Masry (2013)** [29] found that, non-adherence rates among psychiatric patients in Egypt were 74%. Also, the estimated ratio of nonadherent patients varies greatly and range from 20% to 60% for bipolar disorder patients [30]. It was showed that 62.3% of the sample were having a negative attitude toward their medications and poor social support, causes for non-adherence was resulted from several, including particular factors such as lack of insight, health beliefs like-rejecting medication, and drug factors as poor efficacy, adverse effects of the medication, medication interference with life goals, complicated treatment regimen, also, social factors as stigma toward their disorder and deficit of social support [31].

These findings were parallel to those of the Egyptian study carried by El-Azzab and Abu-Salem (2018) [32] who analyzed, potentially influencing factors to the behavior regarding compliance with drug therapy showed that more than half of the patients did not adhere with medications.

The outcomes of the present study showed that two-thirds of the sample had moderate coping with stress, most of them had poor planning, and majority had poor coping using substance as a coping strategy with stress. The result might be attributed to the nature of bipolar disorders' symptoms which make patients cannot use a suitable way to deal with their problems and other. This result was consistent with **Jönsson et al. (2011)** [33] found that two major groups of coping strategies are commonly recognized: Emotion-focused and problem-focused strategies. Also, **Gania et al. (2019)** [34] stated that the most of participants reported seeking social support, applying avoidance, and problem-focused coping strategies.

Furthermore, the study conducted by, Aksoy and Kelleci (2016) [35] revealed that persons who cannot effectively cope with stress, drug incompliance rates may be higher. Additionally, the patients who coped with preliminary symptoms of mania by using behavioral methods, experienced fewer depressive, and manic attacks. Some evidence recommends that it be active, behavioral coping strategies are among the most helpful in terms of leading to better psychosocial functioning [36].

Regarding the total score of studied patients' perception of their social support about one-half of them had poor social support. As well, there were highly significant relationships between friends' support, perceived social support total scores and family support. Also, there were highly significant relationships between friends' support and total scores of perceived social supports. The results of the present study, where the highest sense of social support was found in the family, more specifically the wife, mother, followed by sister then father, wife, spouse, and daughter. This might be due to majority of sample in this study live with their families, which explain the higher level of social support received from family. Moreover, it is not surprising considering it in our culture, responsibilities towards the immediate family members have the highest priority and precede loyalty toward other parties such as friends.

The present study outcome goes on line with **Harfush and Gemeay (2017)** [17] showed that there was a significant correlation between perceived hope and social supports and its aspects in the patients. These outcomes are closely associated with **Pehlivan, Ovayolu and Ovayolu (2012)** [37] conducted in Turkey, which showed that higher degrees of social support in patients led to smaller feeling of disappointment. Moreover, the findings of this study presented that most of the studied sample had an elevated level of recognized social support. This result agrees with **Esmaeil, Ahmadi and Jannati (2013)** [38] revealed that social support was perceived at a low level.

The present study findings revealed that there were highly significant relationship between subitems of perceived social support total scores and coping with stress total scores. The findings might be attributed to strong connection between social support and coping with stress among the patient with bipolar disorder. The result of present study goes on line with **Montemurro (2020)** [39] who explained that the patient with bipolar disorder should be adapted to the degree of family support and family stress, and to the patient's current physical health.

The current study result stated that, there was a highly positive significant correlation between marital status and social support. The current study result is consistent with **Harfush and Gemeay (2017)** [17] which showed that a positive and significant relationship between marital status and hopefulness in the patients.

The study results stated that there was a negative significant correlation between living with family, number of previous admissions to the hospital, and medication compliance. This result might be due to patients with bipolar disorder

want the same daily routine and the same person to manage their needs. This finding is incongruent with that of **Gibbie et al. (**2007**)** [40] who stated that adherence was highest between divorced persons. Living situation (e.g., living with someone) had a positive effect on adherence in many studies. Also, **Gibbie et al.**, found that residing with relative or a spouse had a major effect in adherence. As well, **Fawad and Mansoor (2008)** [41] noticed that adherence rate among persons living with others were 1.38 times higher than among those living alone and the risk of non-compliance was 1.17 times higher among persons living alone.

The results of the present study revealed that, there were no significant relationships between total scores of social supports and drug compliance. These findings might be related to some patients who were discharged from the hospital and had improvement in their symptoms, feel they don't require medication and will be fine without taking any treatment. The results might be different from those of other studies because the data collection tools, methods of conducting these studies or the cultures were different.

The result of present study was in contrast with **Aylaza and Kılınç (2017)** [42] examining the correlation between adherence to treatment and mean scores of social supports, a positive correlation was determined between medication adherence and total mean scores of social supports. The patients with a higher compliance with medication were noticed to have higher social support in total. Also, **Clifford el at**. (2020) [43] who found that clients adhered to medication better when they perceived social support, have good relationship with others, as providing empathy and support.

The outcome of the current study clarified that, there were no significant relationships between coping with stress and drug compliance. In the same line a study by Isik (2003) [9] explained that there is no references in the literature about relationships between methods of stress coping and compliance with medications.

Many overwhelm patients with bipolar disorder and thereby necessitate special professional attention. Consequently, supporting the emotional experience of these patients due to confinement is of major significance to successfully managing the stress responses elicited. Detection of relapse prodrome, monitoring of pharmacological treatment and enhancement of medication-adherence in these patients will contribute to reducing the possibility of relapses marked by the instability provoked by this health crisis [45]. Patients with bipolar disorder require to promote healthy, regular sleep patterns and living patterns will stabilize emotions. Similarly, the reduction of social isolation,

feeling as well as social relationships regularization will avoid a drastic decrease and/or increase in social stimulation that could decompensate to these patients (46).

Conclusion:

In view of the current study results and research question, it can be concluded that, the patients with bipolar disorder demonstrated that a highly positive significant relationship between social support and coping with stress. The study finding revealed that no significant relationship between social support and medication compliance in patients with bipolar disorder. Additionally, there was no significant relationship between medication compliance and coping with stress in a person with bipolar disorder.

Recommendations:

Centered on the outcomes of the present study, the following recommendations can be indicated:

- The patients with bipolar disorder need a training program to use a coping strategy with stress, social support and how to deal with medication to increase medication compliance and improve their quality of life.
- Widening the scope of this study by carrying it on a larger sample size and different psychiatric hospitals.

Limitations of the study:

Some patients took more time to fill out the questionnaire because of their illness. For example, patients with depressive episode were slow to respond because depressed mood, but patients with manic episodes were slow to respond because of flight of ideas. A number of patients were illiterate, so long time was taken to finalize the sheets that were accomplished by the researchers. Use of precautionary measures to protect patients and ourselves from COVID-19 virus.

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References:

1. Bobo W. The diagnosis and management of bipolar I and II disorders: Clinical Practice. Mayo Clin Proc. 2021; 92(10): 1532-1551. Retrieved 31 March 2021, from. http://dx.doi.org/10.1016/j.mayocp.2017.06.022 Update.
2. Cuijpers P. Targets and outcomes of psychotherapies for mental disorders: An overview. World Psychiatry 2019; 18: 276 - 285.
3. Lilienfeld S. What is "evidence" in psychotherapies? World Psychiatry 2019; 18: 245 - 246.
4. World Health Organization. The global burden of disease: Update. WHO Pres. Geneva. 2008; 33.
5. Miklowitz D, Johnson S. Social and familial factors in the course of bipolar disorder: Basic processes and relevant interventions. Clin Psychol (New York) 2009; 16(2): 281-296.
6. Colom F. Achieving remission and recovery in bipolar disorder. The Journal of Clinical 2010; 71: e32.
7. Chatterton M, Stockings E, Berk M, Barendregt J, Carter R, Mihalopoulos C. Psychosocial therapies for the adjunctive treatment of bipolar disorder in adults: Network meta-analysis. British Journal 2017; 210: 333-341.
8. Mahaye S, Mayime T, Nkosi S, Mahomed F. Medication adherence of psychiatric patients in an outpatient setting. African Journal of Pharmacy and Pharmacology 2012; 6(9): 608-612.
9. Isik E. Mood Disorders: Depression and bipolar disorders. Gorsel Sanatlar Matbaacilik, Istanbul. Görsel Sanatlar Basımevi; 2003.p. 467-540.
10. Robitaille A, Orpana H, McIntosh C. Psychometric properties, factorial structure, and measurement invariance of the English and French versions of the medical outcomes study social support scale. Health Rep. 2011; 22(2): 33-40.
11. Velligan D, Weiden P, Sajatovic M, Scott J, Carpenter D, Ross R, Docherty J. Assessment of adherence problems in patients with serious and persistent mental illness: Recommendations of the expert consensus guidelines. Journal of Psychiatric Practice 2010; 16: 34-45.
12. Kizilkurt O, Giynas F, Gulec M, Gulec H. Bipolar disorder and perceived social support: Relation with clinical course, and the role of suicidal behaviour. Psychiatry And Clinical Psychopharmacology 2019; *29*(4): 787-793.
13. Abdelsalam Z, Gaber N. Correlates to relapse as perceived by schizophrenic patients. American Journal of Nursing Science 2017; 6(4): 308-314.
14. Eidelman P, Gershon A, Kaplan K, McGlinchey E, Harvey A. Social support and social strain in inter-episode bipolar disorder. Bipolar Disord. 2012; 14 (6): 628-640.
15. Faraji E, Sardashti S, Firouzeh M, Aminabad F, Alinaghi S, Hajiabdolbaghi M. Perceived social support affects disease coping among people living with HIV: A study in Tehran, Iran. Asian Pacific Journal of Tropical Disease 2015; 5: 412-417.
16. Faridhosseini F, Baniasadi M, Bordbar M, Pourgholami M, Ahrari S, Asgharipour N. Effectiveness of psychoeducational group training on quality of life and recurrence of patients with bipolar dsorder. Iran Journal of Psychiatry 2017; 12: 21-28.
17. Harfush S, Gemeay E. Perceived social support and medication compliance among patients with psychiatric disorders. International Journal of Novel Research in Healthcare and Nursing 2017; 4 (3): 157-169. Retrieved from. https://www.noveltyjournals.com
18. Martin P. 6 Bipolar disorders nursing care plans. Nurseslabs, 2019. Retrieved April 12, 2019. from.http://www.Nurseslabs.com

19. Ayaz Alkaya S, Montenegro A, Caliskan N, Baykara Z. Betty neuman: System model. Nursing theories and models. Istanbul: Akademi Printing and Publishing; 2017.p. 444-463.
20. Akbaş E, Yiğitoğlu G. Nursing care for a patient with bipolar disorder (Mixed Attack) according to Neuman Systems model: Case report. Journal Of Psychiatric Nursing 2020; 11(2): 154 - 162. Retrieved from. https://doi.org/10.14744/phd.2019.80774.
21. Awad A. Subjective response to neuroleptics in schizophrenia. Schizophr Bull 1993; 19: 609-618.
22. Zimet G, Dahlem N, Zimet S, Farley G. The multidimensional scale of perceived social support. Journal of Personality Assessment 1988; 52: 30-41.
23. Carver C. You want to measure coping, but your protocol' too long: Consider the brief cope. International journal of behavioral medicine 1997; 4(1): 92-100.
24. Carver C, Scheier M, Weintraub J. Assessing coping strategies: A theoretically based approach. Journal of personality and social psychology 1989; 56 (2): 267.
25. Whiteford H, Harris M, McKeon G. Estimating remission from untreated major depression: A systematic review and meta-analysis. Psychol Med. 2013; 43(8):1569-1585.
26. Lan C, Shiau S, Lin L. Knowledge, beliefs, attitudes, and drug compliance in schizophrenic patients. Tzu Chi Medical Journal 2013; 15: 369 - 374.
27. Hassan S, Zaki S. Social support and its relation with medication adherence among patients with psychiatric illness. IOSR Journal of Nursing and Health Science (IOSR-JNHS) 2018; 7: 64 -71. Retrieved from. https://doi.org/10.9790/1959-0701046471.
28. Kilic C, Esel E. The stress-reaction process. Bulletin of Clinical Psychopharmacology 2002; 12: 41- 48.
29. Amr M, El-Mogy A, El-Masry R. Adherence in Egyptian patients with schizophrenia: The role of insight, medication beliefs and spirituality. The Arab Journal of Psychiatry 2013; 24(1); 60–68.
30. Lee E, Jang M. The influence of body image, insight, and mental health confidence on medication adherence in young adult women with mental disorders. International Journal of Environmental Research and Public Health 2021; 18(8): 3866-3878.
31. Smeraldi E, Cavallaro R, Folnegovic-Šmalc V, Bidzan L, Ceylan M, Schreiner A. Long-term remission in schizophrenia and schizoaffective disorder: Results from the risperidone long-acting injectable versus quetiapine relapse prevention trial (ConstaTRE). Therapeutic Advances in Psychopharmacology 2013; 3:191-199.
32. El-Azzab S, Abu-Salem E. Effective strategies for nurses empowering the life quality and antipsychotic adherence of patients with schizophrenia. Journal of Nursing Education and Practice 2018; 8(10): 106-114. Retrieved from. https://doi.org/10.5430/jnep.v8n10p106
33. Jönsson P, Skärsäter I, Wijk H, Danielson E. Experience of living with a family member with bipolar disorder. International Journal mental Health Nursing 2011; 20(1): 29-37.
34. Gania A, Kaur H, Suhaff A, Grover S, Khan A, Wani S. Coping among caregivers of patients suffering from bipolar affective disorder, Journal of Mental Health and Human Behavior 2019; 24:139-143.
35. Aksoy A, Kelleci M. Relationship between drug compliance, coping with stress, and social support in patients with bipolar disorder. The Journal of Psychiatry and Neurological Sciences 2016: 210-218. Retrieved from. https://doi.org/10.5350/dajpn2016290302.
36. Yan T, Greene M, Chang E, Hartry A, Touya M, Broder M. Medication adherence and discontinuation of aripiprazole once-monthly 400 mg (AOM 400) versus oral antipsychotics in patients with schizophrenia or bipolar I disorder: A Real-World Study using US claims data. Advances in Therapy 2018; 35(10):1612-1625.

37. Pehlivan S, Ovayolu O, Ovayolu N. Relationship between hopelessness, loneliness, and perceived social support from family in Turkish patients with cancer. Support Care Cancer 2012; 20: 733-739.
38. Esmaeil R, Ahmadi H, Jannati Y. The relationship between perceived social support and self-efficacy with diet adherence among hemodialysis patient. Avicenna J Nurs Midfery Care 2013; 21:59-67.
39. Montemurro N. The emotional impact of COVID-19: From medical staff to common people. Brain, Behavior, and Immunity 2020; 87: 23-24.
40. Gibbie T, Hay M, Hutchison C, Mijch A. Depression, social support, and adherence to highly active antiretroviral therapy in people living with HIV/AIDS. Sex Health 2007; 4(4): 227-232.
41. Fawad T, Mansoor T. Factors associated with non-adherence among psychiatric patients at a Tertiary Care Hospital. Karachi, Pakistan. Journal of Pakistan Medical Association 2008; 8: 58.
42. Aylaza R, Kılınç G. The relationship between treatment adherence and social support in psychiatric patients in the east of turkey. Archives of Psychiatric Nursing 2017; 31: 157-163.
43. Clifford L, Crabb S, Turnbull D, Hahn L, Galletly C. Qualitative study of medication adherence amongst people with schizophrenia. Archives of Psychiatric Nursing 2020; 34: 194–199.
44. Hernández-Gómez A, Andrade-González N, Lahera G, Vieta E. Recommendations for the care of patients with bipolar disorder during the COVID-19 pandemic. Journal Of Affective Disorders 2021; 279: 117-121. Retrieved from. https://doi.org/10.1016/j.jad.2020.09.105.
45. Golinelli D, Boetto E, Carullo G, Landini M, Fantini M. How the COVID-19 pandemic is favoring the adoption of digital technologies in healthcare: a rapid literature review. MedRxiv. 2020. Retrieved from. https://doi.org/10.1101/2020.04.26.20080341.

الملخص العربي

الدعم الاجتماعي والتكيف مع التوتر والالتزام بالأدوية لدي مرضى اضطراب ثنائي القطب

المقدمة: الاضطراب ثنائي القطب هو اضطراب نفسي يسبب إعاقة شديدة، ويحتاج إلى مزيد من الدعم النفسي والاجتماعي، كما توجد العديد من المشكلات المتعلقة بالتزام المريض بالأدوية وكيفية التعامل مع التوتر. **الهدف من الدراسة**: فحص الارتباط فيما يتعلق بالدعم الاجتماعي، والتكيف مع التوتر والالتزام بالأدوية لدي مرضى اضطراب ثنائي القطب. سؤال البحث: هل توجد علاقة بين الدعم الاجتماعي و التكيف مع التوتر و الالتزام بالأدوية لدي المرضى الذين يعانون من اضطراب ثنائي القطب؟.

نوع البحث: تم استخدام تصميم بحث وصفي ارتباطي في هذه الدراسة. **منهجية البحث**: تضمنت الدراسة ثمانون مريضا نفسيا تم تشخيصهم طبيا بأنهم مرضي باضطراب ثنائي القطب. تم إجراء هذا البحث بالعيادات الخارجية بمستشفى الطب النفسي التابعة لوزارة الصحة بمحافظة بني سويف، مصر. في الفترة من بداية أغسطس٢٠٢٠م حتى نهاية ديسمبر ٢٠٢٠م.

كما تم استخدام أربعة **ادوات لجمع البينات** أولا: استبيان البيانات الاجتماعية والديموغرافية والطبية. ثانيا: استبيان قائمة الاتجاهات نحو الادوية ""DAI-10. ثالثا: مقياس متعدد الأبعاد للدعم الاجتماعي المدرك. رابعا: مقياس التأقلم الموجز. **النتائج:** أكدت نتائج الدراسة أن اكثر من ثلثي العينة لديهم اتجاهات سلبية فيما يتعلق بالالتزام بالأدوية. كما بينت النتائج أن ثلث المشاركين حصلوا على دعم غير كافي من الأصدقاء. كما أظهرت أن النتيجة الإجمالية لأدراك المرضى للدعم الاجتماعي لنحو نصف المرضي كان لديهم دعم اجتماعي ضعيف.

الخلاصة: يمكن الاستنتاج بأن هناك علاقة ايجابية ذات دلالة إحصائية عالية بين الدعم الاجتماعي و التكيف مع التوتر لدي مرضى اضطراب ثنائي القطب.

التوصيات: يحتاج مرضى الاضطراب ثنائي القطب إلى برنامج نفسي تربوي لاستخدام استراتيجية التكيف مع التوتر والدعم الاجتماعي وكيفية التعامل مع الأدوية لزيادة الالتزام بالأدوية و تحسين جودة حياتهم.

الكلمات المفتاحية: الدعم الاجتماعي، التكيف، الالتزام باللأدوية، اضطراب ثنائي القطب.