Quality of Life among Patients with Bipolar Disorder

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Abstract

Background: Bipolar disorder (BD) is serious, chronic psychiatric illnesses characterized by alternating episodes of mania or hypomania and depression, or mixtures of manic and depressive features and appears in adolescence or early adulthood. **Aim:** This study aimed to assess quality of life among patients with bipolar disorder**. Design:** A descriptive exploratory study design was utilized in this study. **Setting:** This study was carried out in the outpatient clinic of the Institute of Psychiatry at Ain Shams University. **Subjects:** A purposive sample of 40 patients with bipolar disorder **Data were collected using:** 1) Interviewing questionnaire containing the following parts: A) Socio-demographic characteristics. B) Patients' clinical data sheet. C) Patients' level of knowledge regarding bipolar disorder. 2) Quality of life in bipolar disorder (QOL.BD-56) questionnaire. **The results:** there was highly significant difference as regarding total QOL ($P \leq 0.001$). Additionally, there was statistically significant correlation found between adequacy of monthly income and total QOL. Besides, there was no statistically significant correlation found between age, gender, marital status, education level and occupation as regard total QOL. **Conclusions:** the total level of QOL was negative in all dimensions of QOL toward the patients with bipolar disorder under study. **Recommendations:** Examination of the role of comorbidities such as anxiety disorders and substance abuse disorders on QOL in bipolar disorder, and construction of family interventions designed to support family members' efforts to cope with the intrusion of BD into the household.

Key words: Bipolar disorder - Quality of life.

Introduction

Bipolar disorder (BD) is one of the commonest psychiatric disorders with a lifetime prevalence of about 3% in the general population and is the sixth leading cause of disability worldwide .This disorder is characterized by repeated episodes in which the patient's mood and activity levels are significantly disturbed. This disturbance consists on some occasions of an elevation of mood and increased energy and activity (mania or hypomania), and on other occasions of a lowering of mood and decreased energy and activity (depression) **(Michalak et al., 2016).**

Bipolar disorder (BD) is a severe medical condition frequently associated with major functional impairments and low quality of life even during periods of

remission. As the illness starts early in life, i.e., during teens or early adulthood, persons suffering from BD have symptoms of illness for the major part of their life **(Cipriani et al., 2017).**

Quality of life has gained increasing attention as an important component of the functional outcome in bipolar disorder. The disabling nature of the disease significantly impacts the lives of individuals with the disease and their families. Symptoms that affect QOL include: cognitive impairment, emotional problems, impairment in work, family, social life, and impairment in interpersonal relationships, so, it is clear that individuals with BD have lower overall and general health of QOL than the general population **(Thonse et al., 2018).**

Significance of the study

It has been observed that; Bipolar disorder is a life altering event, and it causes symptoms that interfere with patients‘ abilities to function and affects all aspects of patients‘ quality of life; physically, socially, and psychologically. In this context, maintaining a reasonable quality of life in the face of the illness is very challenging, it is about reducing the impact that the illness has on day-to-day living maintaining a flexible approach to life, and being able to express negative emotions openly but not being overwhelmed by these emotions.

Bipolar disorder is a prevalent and chronic disease that affects the lives of patients and has an impact on society. According **to (Asaad et al., 2014)**. Who studied psychiatric comorbidity among426 cases at governmental and private psychiatric hospitals; found that 20.3% of these cases were diagnosed with bipolar disorder.

In Egypt, According to study entitled "National Survey for Mental Health in Egypt One Year Prevalence of Common Mental Disorders: Community Survey" through the General Secretariat of Mental Health and Addiction Treatment; 25% of studied population (31.639) psychiatric patients. The study showed that the most common disorders are mood disorders, "specifically depression" which the percent was 43.7%. The prevalence of bipolar disorder was 2.70 **(Rabie, Sabry, Noby, Shaker &Ali, 2017).**

Symptoms that affect QOL include: fatigue, sleep disturbance, disturbance in overall physical health, depression/ anxiety, cognitive impairment, in addition side effects of medication, emotional problems, sexual dysfunction, isolation, financial problems, diminish their role within family and community and impairment extended to all areas of psychosocial functioning; including interpersonal relationships with friends and families, enjoyment of recreation and overall life satisfaction **(Janicak, 2017).**

Therefore, the study was done to assess the quality of life among patients with bipolar disorder.

Aim of study:

This study aimed at assesses quality of life among patients with bipolar disorder.

Research Question:

This study is based on answering the following question:

1. What are the levels of quality of life among patients with bipolar disorder?

Working Definition:

Quality of life among patients with bipolar disorder in this study is limited to twelve domains: " physical, sleep, mood, cognition, leisure, relationships, spiritual, finance, household, self-esteem, independence, and identity".

Subject and Methods

Technical design

A- **Research design:**

A descriptive explorative study design was used in this study to assess quality of life among patients with bipolar disorder.

B- Research Setting:

The study was conducted at the outpatient clinic of the Institute of Psychiatry at Ain Shams University.

C- Subjects of the study:

A Purposive sample of 40 patients with bipolar disorder was selected according to certain inclusion criteria and determined by using appropriate statistical equation.

$s = {}_X{}^2 NP\ (1- P) \div d^{\,2}\ (N -1) + X^2 P\ (1- P)$.

Inclusion criteria:

- Age: 20-40 years old (young adult).
- From both sexes.
- Educational level: at least read and write.
- Diagnosed with BD for at least one year ago & free from other psychiatric illnesses.
- Free from any medical disorders.
- Willing to participate in the study.

D- Tools of Data Collection

I- Patients' assessment sheet: interviewing questionnaire: It was designed by investigator in simple an Arabic language after reviewing related literature. It included three parts as following:

First part: It included assessment data of socio-demographic characteristics of the patients under study such as patients' age, gender, marital status, level of education, occupation, income, residence, sufficiency of income, health insurance, suffering from cost of treatment, and transportation.

Second part:

It was concerned with assessment of patients' clinical data that contains: first complain of bipolar disorder, onset of diagnosis of bipolar disorder, precipitating factors of bipolar disorder, side effects of medication, compliance of treatment, and family history regarding psychiatric illness.

Third part:

It was concerned with patients' overview about the magnitude of the disorder regarding bipolar disorder; it was be developed by investigator after reviewing related literature. It designed to

assess patients' level of knowledge regarding bipolar disorder.

Total score was considered as the following:

Items	Level of knowledge	
	Unsatisfactory	Satisfactory
Nature of the disease	4:8.8	8.9:12
Signs & symptoms of BD.	5:11	11.1:15
Treatment modalities	2:4.4	4.5:6

II- Quality of Life in Bipolar Disorder *(QOL.BD-56)* Questionnaire:

Quality of Life in Bipolar Disorder -56 is standardized; an outcome assessment instrument developed by **Michalak** and **Murray, 2009** and it was translated in Arabic language by the investigator. It provides a quality of life measure specifically tailored to BD. The QOL.BD-56 is a 5-Likert scale (from strongly agree to strongly disagree), organized into12core domains (Physical, Sleep, Mood, Cognition, Leisure, Social relationship, Spiritual, Finance, Household, Self-esteem, Independence, Identity) and two optional scales to be completed (Work and Education).

Scoring:

Each statement had scores ranging from 1- 5 (1= strongly disagree, 2=disagree, 3= neutral, 4= agree, and 5= strongly agree).

The total score was calculated as the following:

Total QOL Dimensions	Score
Negative QOL Score	48 : 143
Positive QOL Score	144 : 240

Operational design

The operational design for this study includes preparatory phase, pilot study, fieldwork, and ethical considerations.

A. Preparatory phase

It includes reviewing past, current, local and international related literature and theoretical knowledge of various aspects of the study using books, articles, internet, periodicals and magazines to develop tools for data collection.

Tools validity and reliability

To achieve the criteria of trustworthiness of the tools of data collection in this study, the tools were tested and evaluated for their face and content validity, and reliability by five experts from the faculty members in the nursing field from Ain Shams University. They were from different academic categories, i.e., professors and assistant professors.

The reliability of the tool was assessed through 4 cases using the questionnaire and reassessment after 7 days on the same sample. The result was the same each time. Measuring internal consistency by determining Cronbach alpha coefficient, proved to be high as indicated in the following table:

Validity & Reliability Statistics:

The variable	No. of Items	Validity	Reliability
Knowledge regarding bipolar disorder.	30	0.81	0.83

Pilot Study

The pilot study was conducted on 4 bipolar patients (10% of total sample), at the beginning of august 2018 (later excluded from the actual study subjects), to test and evaluate the clarity of the questions, 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:

The actual fieldwork for the process of the data collection has consumed nine months started at the beginning of August 2018 and was completed by April 2019. Data were collected 2days/week on Wednesday – Thursday from 9 a.m. to 2 p.m. Data were collected by the investigator.

Ethical Considerations:

After securing official requirements for carrying out this study, the subjects were informed about choosing to participate or not. The researcher took oral consent from the patients if they need to participate, besides, they were informed about the patients' right to withdraw at any time without giving a reason.

Data were anonymous, and only used for the purpose of the study. The researcher explained the aim and nature of this study to the patients with reassurance about confidentiality of the information given and that it will be used for scientific research only.

Administrative Design:

An official approval was obtained from Dean of the Faculty of Nursing, Ain Shams University. A letter containing the title and the aim of the study and was directed to responsible authorities in the Institute of Psychiatry for obtained the approval for data collection and conduct the study.

Statistical Design:

The collected data were organized, coded, and analyzed using appropriate statistical significant tests. The data was done by using the Statistical Package for Social Science (SPSS) version 20.0.

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 $(X)^2$ and P-value to test the association between two variables.

The validity and reliability tests were confirmed by using the Cronbach Alpha Coefficient test. 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) clarify that, two fifths (40%) of patient understudy were in age from 35-40years old with mean age of 32.10 ± 5.900, three fifths (60%) of them were females. near half (47.5%) of them had secondary education. As Regards their occupation, more than half (55%) of the studied sample were unemployed but less than one third (32.5%) of them were employed.

Regarding their income it was found that, majority (87.5%) of the studied sample receive their income monthly; and less than two thirds (62.5%) of them had insufficient income. In addition, the majority (90%) of the patients understudy were suffering from cost of treatment and transportation. As regards cost of treatment, the majority (85%) of the studied sample were free with afford some its cost. As well as, less than three quarters of the studied sample (72.5%) were the sole breadwinners of their families.

Table (2) represent that, half (50%) of the studied sample were first complain of bipolar disorder since more than 10 years and regarding their diagnosis with bipolar disorder it was found that, less than two fifths (37.5%) were diagnosed since 10 years, while less than one third (30%) were diagnosed between 5-10 years, with mean 7.22 ± 3.880 years.

As regards side effects of medications, four fifths (80%) of the studied sample had complain from side effects of medication and more than two thirds (70%) of them had negative family history regarding psychiatric illness. Meanwhile, regarding compliance of treatment, near half (45%) of the sample were non- compliance of treatment, while less than one third (30%) of the studied sample were compliance of treatment.

Figure (1): illustrates that, distribution of age among the studied sample and indicates that two fifths (40%) of patient understudy were in age from 35-40years old.

Figure (2): clarifies that, distribution of side effects with medication, four fifths (80%) of the studied sample had complain from side effects of medication.

Figure (3): clarifies that, distribution of compliance with treatment, near half (45%) of the sample were non-compliance with treatment, while less than one third (30%) of them were compliance with treatment.

Table (3): clarifies that, the studied patients with bipolar disorder had unsatisfactory level of knowledge regarding nature of the disease, the signs &symptoms, and treatment modalities of bipolar disorder as their means score were (7.92±1.492, 10.80±1.636, 4.60±9.28).

Table (4): reveals that, the studied patients with bipolar disorder had negative physical dimension of QOL as their means score was 8.58

Figure (4): shows that, less than three fifths of the studied sample had a negative spiritual QoL and more than two fifth of them had a positive spiritual QoL.

Table (5): reveals that, there was highly significant difference between total QOL dimensions ($P \leq 0.001$).

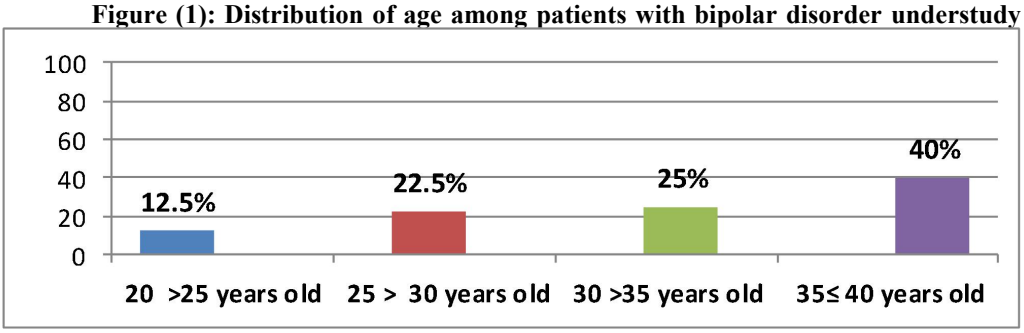
Table (6): reveals that, there was a statistically significant correlation between total knowledge and total QOL

among patients with bipolar disorder, in which ($p< 0.05$).

Table (1): Distribution of socio-demographic characteristics among patients with bipolar disorder understudy (N=40)

Items	N	%
Gender		
Male	16	40
Female	24	60
Age		
20 > 25 years old.	5	12.5
25 > 30 years old.	9	22.5
30 >35years old.	10	25
35 ≤ 40 years old.	16	40
Level of Education		
Read and write.	5	12.8
Secondary School.	19	47.5
Above average.	9	22.5
University.	7	17.5
Occupation		
Employed.	13	32.5
Unemployed.	22	55
Student.	5	12.5
Income		
Daily	5	12.5
Monthly	35	87.5
Sufficiency of Income		
Enough	3	7.5
Barely Enough	12	30
Not Enough	22	62.5
Cost of treatment		
Free	2	5
Free with Afford some its cost	34	85
Paid by the state	4	10
Breadwinner of family		
Yes	11	27.5
No	29	72.5

Figure (1): Distribution of age among patients with bipolar disorder understudy



(n= 40).

Table (2): Distribution Patient's clinical data among patients with bipolar disorder understudy (N=40)

Items	NO.	(%)
Onset complains of bipolar disorder		
One year.	3	7.5
1 >3 years.	5	12.5
3 > 5 years.	5	12.5
5 >10 years.	7	17.5
≤ 10 years.	20	50
Mean ± SD	**8.40 ± 4.645**	
Onset of diagnosis of bipolar disorder		
< one year	2	5
1 > 5 years	11	27.5
5 > 10 years	12	30
≤ 10 years	15	37.5
Mean ± SD	**7.22 ± 3.880**	
Side effects of medication		
Yes	32	80
No	8	20
Family history regarding psychiatric illness		
Yes	12	30
No	28	70
Compliance with treatment		
Non- compliance	18	45
Some What	10	25
Compliance	12	30

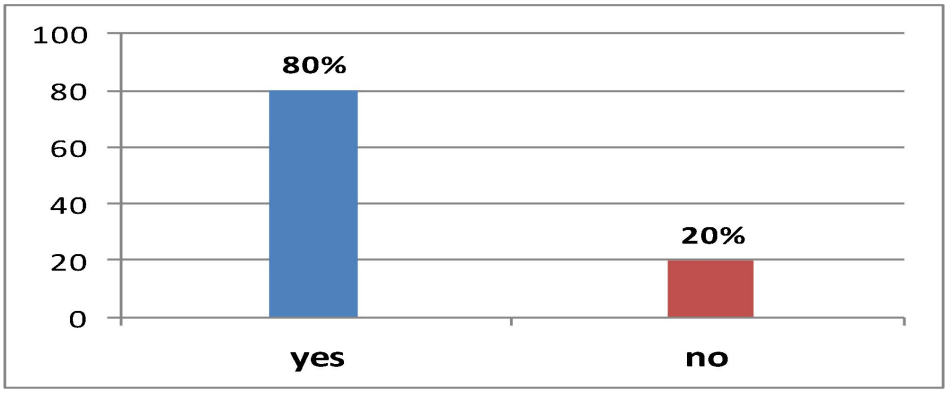


Figure (2): Distribution of the studied sample according to side effects of medication (n= 40).

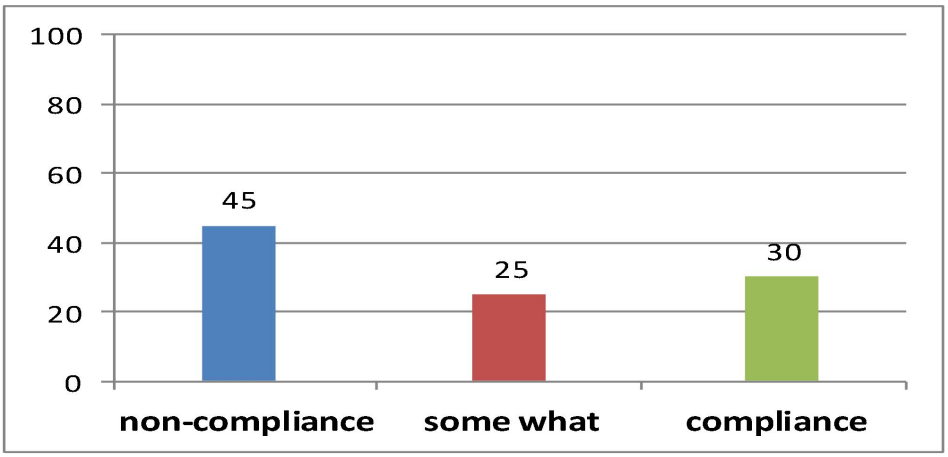


Figure (3): Distribution of the studied sample according to compliance with treatment (n= 40).

Table (3): Distribution of knowledge among patients with bipolar disorder understudy (N=40)

Statement	Yes		No		I don't know		Mean± SD
	N	%	N	%	N	%	
Nature of the disease:							
BD is mood swings called (mania and depression).	**15**	**37.5**	**15**	**37.5**	**10**	**25**	**1.98 ± .698**
BD has different types	**15**	**37.5**	**16**	**40**	**9**	**22.5**	**2.08 ± .616**
Depression is feelings of grief.	**10**	**25**	**13**	**32.5**	**17**	**42.5**	**1.88 ± .757**
Mania is appears in bipolar disorder.	**23**	**57.5**	**11**	**27.5**	**6**	**15**	**2.00 ± .784**
Total				**7.92 ± 1.492**			
The signs and symptoms of bipolar disorder is							
Feeling of hopeless and isolated from others.	**22**	**55**	**14**	**35**	**4**	**10**	**2.22 ± .698**
Weight loss/ gain - loss/increase of appetite.	**12**	**30**	**19**	**47.5**	**9**	**22.5**	**1.95 ± .714**
Feel tired and fatigue.	**20**	**50**	**14**	**35**	**6**	**15**	**2.22 ± .660**
Busy about food and increase in activity level.	**24**	**60**	**10**	**25**	**6**	**15**	**2.22 ± .733**
Pressure of speech and decrease of sleep hours (3 hours only per day).	**20**	**50**	**11**	**27.5**	**9**	**22.5**	**2.18 ± .781**
Total				**10.80 ± 1.636**			
Treatment modalities:							
Methods of treatment for BD are Medications and psychotherapy treatment.	**10**	**25**	**20**	**50**	**10**	**25**	**2.08 ± .764**
ECT is safe and useful treatment for patient.	**23**	**57.5**	**12**	**30**	**5**	**12.5**	**2.52 ± .640**
Total				**4.60 ± 9.28**			
Total knowledge				**23.32 ± 2.495**			

Table (4): Distribution of physical dimension of QOL among patients with bipolar disorder understudy (N = 40).

statements	Strong disagree		Disagree		Neutral		Agree		Strong agree		Mean± SD
	N	%	N	%	N	%	N	%	N	%	
Had plenty of energy.	2	5	15	37.5	15	37.5	8	20	0	0	**2.72 ± .847**
Had the right amount of exercise for me.	10	25	16	40	10	25	4	10	0	0	**2.20 ± .939**
Felt physically well.	0	0	10	25	16	40	14	35	0	0	**2.98 ± .862**
Been content with my sex life **(In case of married patients)*.**	0	0	4	10	5	12.5	1	2.5	0	0	**2.70 ± .675**
Total	**8.58 ± 1.960**										

*** 10 bipolar disorder patients were married.**

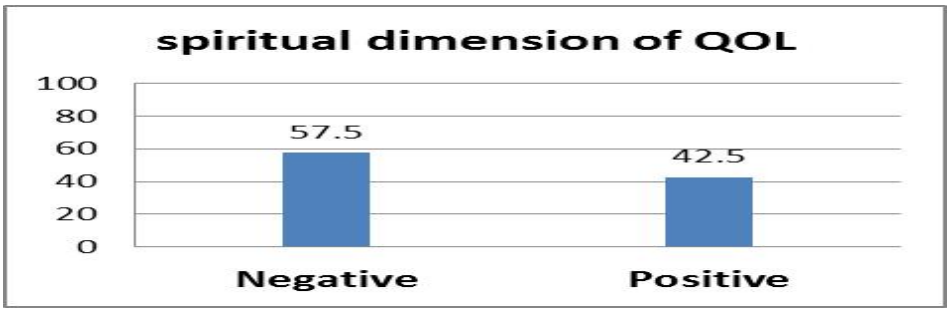


Figure (4): Comparing spiritual dimension of QoL between among patients with bipolar disorder understudy (n=40).

Table (5): Mean score regarding total QOL dimensions among patients with bipolar disorder understudy (n=40)

Statement	Mean± SD
Total QOL dimensions	**135.02 ± 18.562**

Table (6): Correlation between total knowledge and total QOL among patients with bipolar disorder understudy (n=40)

	Total quality of life	
Items	**R - test**	**P value**
Total knowledge	.362*	< 0.05**(S)**

**** Correlation is highly significant at the 0.01 level.**
*** Correlation is significant at the 0.05 level.**

Discussion

Bipolar disorder (BD) is one of the commonest psychiatric disorders, and a chronic mental illness associated with high prevalence, premature mortality and increased suicide risk that usually affects young adults and is linked with a broad spectrum of physical and occupation and social impairments that can seriously affect the lives of the patients; in addition, frequently associated with decreased quality of life (QoL) and impaired psychosocial functioning on account of its high rates of relapse and hospital admissions **(Gitlin & Miklowitz, 2017).**

The combination of a progressive and unpredictable disease process creates an uncommonly stressful illness which powerfully impacts upon the QoL: physical, psychosocial emotional, cognition and financial of both the patients and their relatives throughout its course. The role of nurses in BD includes the provision of information and support, at diagnosis and during relapses, to both patients and their families **(Warwick, Tai, & Mansell, 2019).**

Socio-demographic characteristics among patients with bipolar disorder:

The present study revealed that two fifths of patient understudy were in age from 35-40years old with mean age of 32.10 ± 5.900, and three fifths of them were females. Regarding level of education, the current study showed that near half of the studied sample were secondary educated. This is may be due to the illness which affects the patient attention; concentration and intellectual deficits also occur in euthymic bipolar disorder (BD) patients.

This result is supported by **Toyoshima, et al., (2019)** who assessed Associations between cognitive impairment and quality of life in euthymic bipolar patients and reported that 55 % of the sample was females and 45 % were males and the mean age was 43.63 ± 10.48.

Concerning the working status, the current study indicated that more than half of the studied sample was unemployed but less than one third of them were employed. This is may be due to occupational functioning is one of the key impairments in BD.

Regarding the income, the current study showed that the majority of the studied sample was monthly income; and less than two thirds of them had insufficient income. This could be due to the low socioeconomic class of most of the Egyptian people and the nature of the illness which interferes with work, residual symptoms and cognitive impairment.

This result is correspondent with **Granek , Danan , Bersudsky , and Osher ,(2019),** who assessed living with bipolar disorder: the impact on patients, spouses, and their marital relationship and reported that three-fifths of them were from low socioeconomic status and two fifths were moderate socioeconomic status. So, some institutions afforded cost of treatment for the majority of the studied sample were free with afford some its cost, and only (10%) of the sample were paid by the state.

This result may be due to that governmental hospitals or institutions don't provide complete free afforded cost because these organization provide services for many patients from different areas and different categories, so non-governmental hospitals or institutions play role in helping patients that they can paid the cost of treatment.

This result is supported by **Fatah-allah (2016),** who assessed quality of life among patients with bipolar disorder and revealed that the four fifths of the study sample had free cost of treatment with some expenses.

The current study showed that more than three quarters of the studied sample was the sole breadwinners for their families, while more than quarter of them didn't the sole breadwinners for their families. This result could be due to that quarter of the sample was married and two fifths of the sample was male gender that culturally represented the main persons who are responsible for their families.

Clinical data among patients with bipolar disorder:

Regarding health history of the studied sample in the current study, the onset of complain of bipolar disorder showed that half of the studied sample were experienced their first complains since more than 10 years and less than one fifths of the sample were first complain of bipolar disorder between 5-10 years. In addition, with mean 8.40 ± 4.645years first complain. This result this result is agreement with **Vojta etal., (2016),** who assessed that Self-reported quality of life across mood states in bipolar and found

that age at onset symptoms were (mean = 30.4 ; SD = 14.2) which less than one third ≤ 20 years old and more than two thirds > 20 years old.

Regarding onset of bipolar diagnosis, the current study showed that , slightly less than two fifths of the studied sample regarding period since diagnosed with bipolar disorder since more than 10 years and less than one third were diagnosed between 5-10 years, with mean 7.22 ± 3.880 years since diagnosis. This is may be due to; in some instances, a combination of particular circumstances-poverty, poor education, and lack of support from people can cause increasing risk of bipolar disorder.

This result is similar to the study carried out by **Michalak et al., (2016),** who assessed Bipolar disorder and quality of life: A patient-centered perspective and showed that three fifths of the sample regarding period since diagnosed with bipolar disorder from more than 10 years, while one fifth were diagnosed between 5-10 years.

Regarding side effects of medications, four fifths of the studied sample had complained from side effects of medication, while one fifth of them had negative side effects of treatments. This result is supported by **Fatah-allah (2016),** who revealed that the majority of the study sample had suffered from side effects of medication.

Concerning family history of bipolar disorder, the current study revealed that, less than one third of the studied sample had positive family history and more than two third of them had negative family history regarding psychiatric illness. This result is consistent with **Ak, etal., (2018),** who assessed early maladaptive schemas in bipolar disorder and reported that , less than two third of the sample hadn't history of psychiatric symptoms, while more than one third had history of psychiatric symptoms among their families' members.

Regarding compliance with treatment, near half of the studied sample were non- compliance of treatment, while less than one third of the studied sample were compliance of treatment. This result may be due to that the educational level of an individual affects the adherence to medical regimens, as near half of the sample represented in the current study had finished secondary education, this supports a comprehensive patient education and support are vital in maintaining adherence to BD therapies.

This result is contradicting with **Erten, Alpman, zdemir, & Fistikci. (2014),** who assessed the impact of disease course and type of episodes in bipolar disorder patients and showed that the majority of sample were good compliance with medication.

Knowledge regarding bipolar disorder:

Concerning patient's knowledge regarding bipolar disorder, clarified that, the studied patients with bipolar disorder had unsatisfactory level of knowledge regarding nature of the disease, the signs &symptoms, and treatment modalities of bipolar disorder as their means score were (7.92±1.492,10.80±1.636, 4.60±9.28).

This is may be due to, when the patients educational level increased that help them to acquire and increased knowledge about their disease.

Concerning the patient knowledge regarding percentage of total knowledge among patients with bipolar disorder, the current study revealed that, more than half of the studied sample had a satisfactory knowledge and, while more than two fifths had an unsatisfactory level of knowledge.

This result may be because a high percentage of the current study had finished secondary and high educational level and had better learning. Moreover, the patient had desire to restore his/her life and achieve maximum level of independence in all aspects of their life through motivating and increase patient's readiness to learn.

This result is consistent with, ***Fletcher et al., (2018),*** studied web-based intervention to improve quality of life in late stage bipolar disorder: randomized controlled trial protocol and suggested that, psycho educational intervention is more effective in people with late stage bipolar disorder.

Quality of life dimensions among patients with bipolar disorder:

Regarding physical dimension, the current study revealed that, the studied patients with bipolar disorder had negative physical dimension of QOL as their means score was 8.58

This result was similar to a study carried out by **Kasimahanti & Boorla (2015),** who assessed the quality of life and the comorbid anxiety disorder in persons with schizophrenia, schizo-affective and bipolar affective disorder under remission, and concluded that; the patients had negatively experienced in WHO-QOL-BREF scale domains of physical health, psychological health, and social relations.

Regarding the spiritual dimension, the current study showed that less than three fifths of the studied sample had a negative spiritual QoL and more than two fifth of them had a positive spiritual QoL.

This result may be due to spiritual practices have been shown to have many benefits for emotional wellbeing, such as the patient has kept routine in his /her spiritual life (mean= 2.75 ± .670) especially during stressful times, such as providing social support and a sense of belonging, offering a sense of meaning and purpose, increasing self-confidence, promoting optimism and hope; helping to improve the ability to protect the self, and developing stronger coping styles.

This result is in contradicting with ***Gonda et al., (2016),*** who determined changes in quality of life and work function during phase prophylactic lamotrigine treatment in bipolar patients and reported that more than two thirds of the studied had positive spiritual domain as regarding the spiritual QoL domain.

As well as, there was highly significant difference between total QOL dimensions ($P \leq 0.001$). This result is supported by **Abdel khalek and EL- Nayal (2017),** and indicated that there were highly statistically significant differences regarding total QOL dimensions among the study sample in which ($p<0.001$).

Correlation between total knowledge and total QoL among patients with bipolar disorder:

In addition, there was a statistically significant correlation between total knowledge and total QOL among patients with bipolar disorder, in which ($p< 0.05$). This result is support by **Brissos, Dias, & Kapczinski, (2008),** who assessed cognitive performance and quality of life in bipolar disorder, and reported that the educational level was significantly associated with the psychological and environmental domains, indicating that patients with higher education had better QOL in those domains.

Conclusion

On the light of the current study results, it can be concluded that, Two fifths of patient understudy were in age from 35-40years old and nearly half of the subjects were divorced. As well as near half

of the subjects had finished secondary education with unemployment.

In addition, less than half of them weren't complained with treatment, as regard knowledge regarding bipolar disorder, the studied sample had unsatisfactory knowledge regarding nature of disease, signs and symptoms of bipolar, treatment modalities, and total knowledge level.

Regarding QOL with bipolar disorder experienced negative physical QOL dimension, spiritual QOL dimension and total QOL dimensions. Finally, there was a positive correlation between total knowledge level and total QOL dimensions.

Recommendations

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

- Replication of this study on a larger sample size is recommended as the statistical significance of this study may be related to the small sample size.

- The provision of health care personnel specialized in BD to provide care; health education; and physical, psychosocial, and spiritual support.

- A further research is needed to carry out qualitative studies about the physical, emotional, social, and, spiritual consequences of BD especially in Egypt and in Arabic Nation.

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