

Enhancement of Quality of Life among Patients with Bipolar Disorder

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Abstract: Bipolar disorder (BD) is the most common chronic illness that appears, in adolescence or early adulthood and bipolar disorder are major challenges that affect on patient's quality of life (QOL). Restore patient's life through improving physical, psychological, and social functioning. Aim: This study aimed at enhancement of quality of life among patients with bipolar disorder. Design: The study was conducted on a purposive sample of 40 patients with bipolar disorder. Setting: The study was conducted in the outpatient clinic of the Institute of Psychiatry at Ain Shams University. 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 a high statistically significant difference between pre- and post- intervention as regarding total dimensions of QOL among patients with bipolar disorder. Besides, there were statistically significant differences between total knowledge and total QOL post- intervention. Conclusion: the implementation of the intervention program had statistically positive effect on the QOL dimensions among patients with bipolar disorder. Recommendation: designing a comprehensive nursing protocol focusing on liaison role of psychiatric nurse to facilitate psychosocial adjustment among bipolar disorder patients.

Keywords: Bipolar disorder – Intervention program - Quality of life.

1. INTRODUCTION

Bipolar disorder (BD) remains one of the mental disorders with the greatest global burden. In 2017, BD ranked fourth among mental conditions causing the most years lived with a disability (YLDs) in the world. BD accounted for 7.4% of YLDs, which is the same proportion as schizophrenia (Whiteford et al., 2019). In addition to disability, a recent review indicated that mortality risk in BD patients is double that of the general population (Walker, McGee, & Druss, 2018).

Bipolar Disorder (BD) is a common psychiatric disorder. It emerges as a syndrome with a complete set of episodes of hypomania/ mania and depression and affects 1–2.4% of adults and 2.5% of adolescents (Gomes et al., 2018). Prevalence rate for bipolar disorder as reported by World Health Organization (WHO, 2018) this disorder affects about 60 million people worldwide. BD has a high rate of relapse, and even when undergoing pharmacological treatment, about 40–60% of the patients have at least one relapse into depression or mania within 2 years. Patients with BD are 15–20 times more likely to commit suicide than that of the general population (Miklowitz & Johnson, 2017).

Every new relapse is a stressful event that generates painful emotions, disrupts the patient's life and familial equilibrium leading to changes in the roles of each member, and requires the development and adjustment strategies. The illness not only affects the patient but also their relatives, who suffer the consequences of the episodes and usually become the main

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caregivers. The role of caregivers can be very demanding and distressing especially when, as happens frequently, they have not received enough information, and support (Sierra, Livianos, & Rojo, 2019).

BD has a lower recovery rate and a higher mortality rate than that of other mood disorders. The world health organization (WHO) ranked BD as the sixth leading cause of lifetime adjustment impairment in people in the age group of 15–44 years throughout the world (Havermans, Nicolson & Devries, 2017).

Lower Quality of Life (QoL) is associated with a greater risk for suicidal behavior in adults with BD and along with interpersonal conflicts has been observed in these patients during recovery (Fulford, Peckham, Johnson & Johnson, 2019). QoL refers to each individual's range of needs related to his/her perception about feeling good. Good QoL is not the absence of illness, but it refers to feeling good about various social, physical, and psychological functions (Morton & Murray, 2017).

The goals of the nursing role among patients with bipolar disorder are aiming to manage signs and symptoms of bipolar disorder; promote physical functioning; promote independence; enhance self-care; improve psychological state; increase social participation; and enhance psychosocial adjustments as well as support patients and their families during the process of adaptation to alterations in mood, behavior and self esteem.

Significance of the study

Bipolar disorder (BD) is chronic, common, recurrences, and serious psychiatric illness. The association between QOL and bipolar disorder for both the patients and their families because of its affect on all domains of QOL including physical, social, financial, spiritual and psychological aspects are decreased in patients with BD while the burden of illness is increased, leading to promote maladaptive reactions leading to poor psychological adjustment. In such chronic conditions, the goal of care is to make the patients' life as comfortable, functional and satisfying as possible.

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).

So, this study would be helpful in providing better understanding to the knowledge regarding the disease and providing an intervention program depending on the role of the psychiatric mental health nurse in order to enhance quality of life dimension, as well as enhancing life satisfaction, achieving independent daily social activities, assist community reintegration, enhancing psychosocial adjustment and ultimately improving the overall QOL of bipolar patients.

Aim of the Study

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

This aim achieved through:

- 1- Assessing the quality of life among patients with bipolar disorder.
- 2- Accordingly developing and implementing nursing intervention program to enhance QOL among patients with bipolar disorder.
- 3- Evaluating the effectiveness of nursing intervention program on QOL among patients with bipolar disorder.

Research Hypothesis:

The current study hypothesized that: Nursing intervention program will have a positive effect on enhancement of QOL 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".

2. SUBJECTS AND METHODS

I. Technical design

A- Research design:

A quasi experimental design was selected to enhance quality of life among patients with bipolar disorder.

B- Research Setting:

The study was conducted in 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.

$$s = \frac{X_2 N P (1 - P)}{d^2 (N - 1) + X_2 P (1 - P)}$$

Inclusion criteria:

- Age: 20-40 years old (young adult).
- From both sex.
- Educational level: at least read and write.
- Diagnosed with BD for at least one year & 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 researcher 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, and cost of treatment.

Second part:

It was concerned with assessment of patients' clinical data that contains: years since first complains of bipolar disorder, years since 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 educational needs regarding bipolar disorder; it will be developed by researcher after reviewing related literature. It designed to assess patients' level of knowledge regarding bipolar disorder.

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 researcher. The QOL.BD-56 is a 5-likert scale (from strongly agree to strongly disagree), organized into 12 core domains (Physical, Sleep, Mood, Cognition, Leisure, Social relationship, Spiritual, Finance, Household, Self-esteem, Independence, Identity).

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II. 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., (4) professors and (1) assistant professors.

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.

B- Implementation phase:

Fieldwork

The actual fieldwork for the process of the data collection has consumed **nine**-months started at beginning of August 2018 and was completed by April 2019, through the following steps:

First step:

Pre interaction, the researcher obtained patient's personal data and part of clinical data sheet from patient file, also the researcher ensured that the patient was fulfilling the inclusion criteria of the study.

Data were collected daily for 2 days/ week (Wednesday – Thursday) during the morning shift (9.00 a.m.:2.00p.m). Confidentiality of obtained information was assured, and the subjects were informed about their right to participate or not in the study and withdraw at any time without giving any reason.

Second step:

The researcher started the intervention program's sessions with study group. Patients' telephone number was obtained to determine the next appointment. The teaching sessions were conducted in the clinic in the outpatient department. The clinic was air conditioned, quiet, well ventilated, well furnished, adequate lighting and adequate spacing for implementing health promotion program activities.

The content of the intervention program was achieved through **(22)** sessions, covered in **(17)** hours approximately, **(2)** theoretical hours and **13** practical hours and **2** hours for data collection and acquaintance).

C- Evaluating phase:

The evaluation phase was done to evaluate the effectiveness of nursing intervention program on QOL among patients with bipolar disorder through filling in the same data collection tools after implementation of the program.

III. 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 to conduct the study.

IV. 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 association between two variables.

Degrees of significance of results were considered as follows:

p-value > 0.05 Not significant (NS)

p-value \leq 0.05 Significant (S)

- p-value \leq 0.001 Highly Significant (HS)

3. 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. Concerning marital status, near half (45%) of the sample were divorced and 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 residence area it was found that, more than half (55%) of the patient understudy were lived in rural areas, and more than three quarters (77.7%) of them lived with their families.

Figure (1): clarifies that, distribution of occupation status more than half (55%) of the studied sample were unemployed but less than one third (32.5%) of them were employed.

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.

Regarding precipitating factors it was found that, slightly less than two thirds (65%) of the studied sample had positive precipitating factors. As regards side effects of medications, four fifths (80%) of the studied sample had complain from side effects of medication and more than two third (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 (2): reveals that, more than half (55%) of the studied sample had satisfactory level of knowledge pre-intervention and the majority of them enhanced to (85%) post-intervention.

Table (3): reveals that, there was highly significant difference between pre and post intervention regarding total quality of life ($P \leq 0.001$).

Figure (3): clarifies that, more than three quarters of studied sample (75%) had negative total QOL in pre-intervention. While, more than two third (72.5%) of them had positive total QOL in post-intervention.

Table (4): reveals that, there were statistically significant difference between gender, age, occupation status and adequacy of income and total QOL in pre- and post-intervention among patients with bipolar disorder, in which ($p < 0.05$ and $p \leq 0.001$) respectively.

Table (5): reveals that, there were statistically significant difference between years since first complaining bipolar disorder, family history regarding psychiatric illness, and compliance of treatment and total QOL in post-intervention among patients with bipolar disorder, in which ($p < 0.05$).

Table (6): reveals that, there was a highly statistically significant correlation between total knowledge and total QOL in post-intervention. In addition, there was a statistically significant correlation between total knowledge and total QOL in pre-intervention among patients with bipolar disorder, in which ($p < 0.05$).

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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
Mean ± SD		32.10 ±5.900
Marital Status		
• Single.	12	30
• Married.	10	25
• Divorced.	18	45
• Widowed.	0	0
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
Residence		
• Rural.	22	55
• Urban.	18	45
Live with		
• Alone.	9	22.5
• Family.	31	77.5

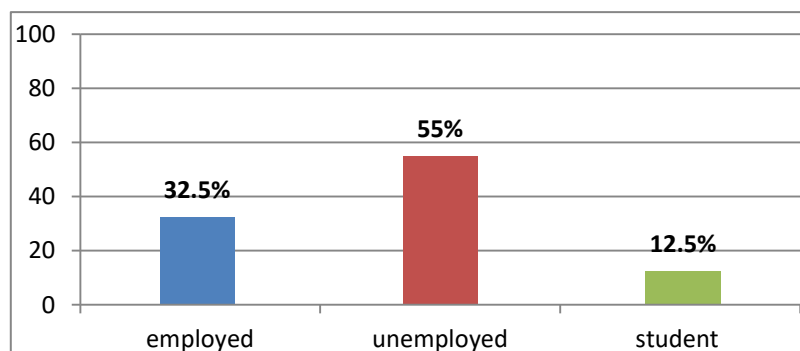


Figure (1): Distribution of occupation status among patients with bipolar disorder understudy (n= 40).

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

Items	NO.	(%)
Years since first 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	
Years since 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	
Precipitating factors of bipolar disorder		
• Yes	26	65
• No	14	35
Side effects of medication		
• Yes	32	80
• No	8	20
Family history regarding psychiatric illness		
• Yes	12	30
• No	28	70
Compliance of treatment		
• Non- compliance	18	45
• Some What	10	25
• Compliance	12	30

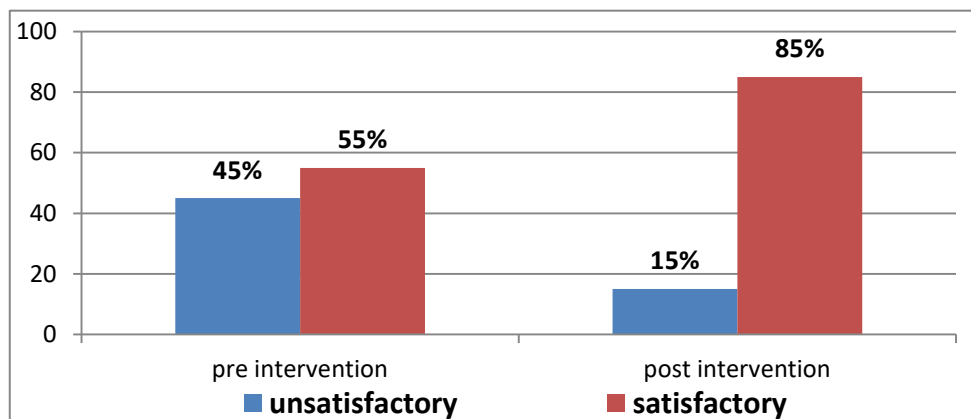


Figure (2): Percentage of total knowledge among patients with bipolar disorder understudy pre and post intervention understudy (n=40)

Table (3): Comparison between mean scores pre- and post- intervention regarding total quality of life dimension among patients with bipolar disorder understudy (n=40)

Statement	Pre- intervention	Post- intervention	T	P value
	Mean± SD	Mean± SD		
Total QOL	135.02 ± 18.562	180.62 ± 31.706	13.468	.000 (HS)

HS= statistically highly significant at $p \leq 0.001$

S= statistically significant at $p \leq 0.05$

NS= statistically not significant at $p > 0.05$

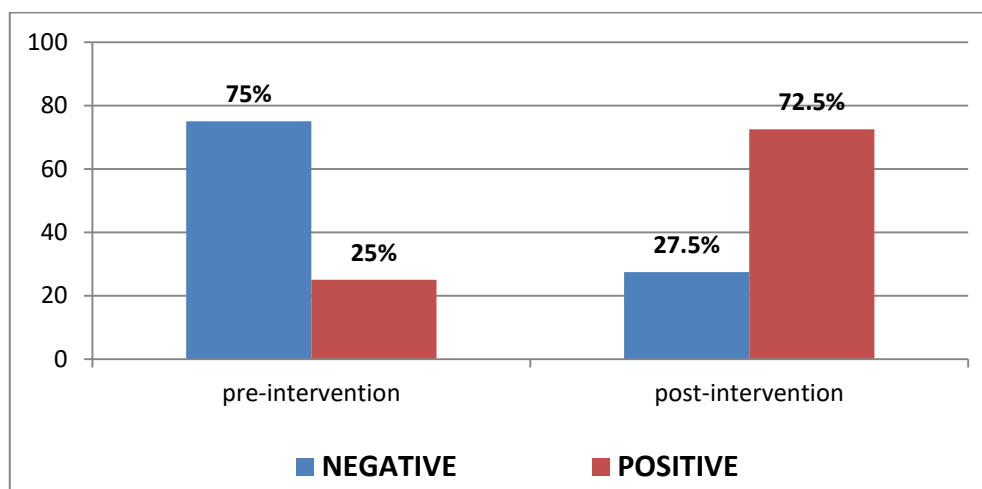


Figure (3) pre- and post- intervention regarding total quality of life dimensions among patients with bipolar disorder understudy (n=40)

Table (4): Relation between socio-demographic characteristics and total QOL pre- and post- intervention among patients with bipolar disorder understudy (n=40)

Items	Total quality of life			
	Pre- intervention		Post- intervention	
	X ²	P value	X ²	P value
Gender	21.94	> 0.05	28.19	< 0.05 (S)
Age	43.25	> 0.05	46.50	< 0.05 (S)
Marital Status	48.63	> 0.05	56.91	> 0.05
Education Level	79.31	> 0.05	82.45	> 0.05
Occupation	51.95	> 0.05	62.02	< 0.05 (S)
Adequacy of income	45.75	< 0.05 (S)	49.31	0.01 (HS)

HS= statistically highly significant at p≤ 0.001 S= statistically significant at p≤ 0.05

NS= statistically not significant at p> 0.05

Table (5): Relation between clinical data and total QOL pre- and post- intervention among patients with bipolar disorder understudy (n=40)

Items	Total quality of life			
	Pre- intervention		Post- intervention	
	X ²	P value	X ²	P value
Years since first complains of bipolar disorder	34.10	> 0.05	39.24	< 0.05 (S)
Years since diagnosis of bipolar disorder	27.88	> 0.05	35.22	> 0.05
Precipitating factors of bipolar disorder.	26.81	> 0.05	30.74	> 0.05
Side effects of medication.	20.22	> 0.05	29.16	> 0.05
Family history regarding psychiatric illness.	26.50	> 0.05	36.51	< 0.05 (S)
Compliance of treatment	49.20	> 0.05	53.44	< 0.05 (S)

HS= statistically highly significant at p≤ 0.001 S= statistically significant at p≤ 0.05

NS= statistically not significant at p> 0.05

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

Items	Total quality of life			
	Pre- intervention		Post- intervention	
	r	P value	r	P value
Total knowledge	.362*	< 0.05 (S)	.757**	.000 (HS)

** Correlation is highly significant at the 0.01 level.

* Correlation is significant at the 0.05 level.

4. DISCUSSION

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. It may be due to the age group was interested to know and oriented towards their illness that help them coping with the disorder and can be productive in the community.

Regarding marital status, this study results revealed that, near half of the studied sample were divorced and quarter of them were married. This result may be due to some husbands refuse to become responsible for wives with psychiatric illness because of fear from having child with psychiatric illness or facing the community with the stigma of psychiatric illness, while most of interviewed wives' of patients with bipolar disorder disease accept the illness of their husbands and adapt with the stigma and the burden of psychiatric illness.

This result is supported by **Wynter and Perich (2018)**, who assessed use of self-care strategies in the management of bipolar disorder and their relationship to symptoms, illness intrusiveness, and quality of life and reported that more than half of the samples were divorced.

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. 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 occur in the cognitive domains, e.g. executive function, attention and verbal memory.

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. people with bipolar disorder being unemployed, often because they didn't do as well as expected at the jobs because of mood disorder related to his/her illness. So, little patients with bipolar can achieve the expected level of occupational functioning. This result is agreement with **Revicki, Matza, Flood, & Lloyd, (2018)**, who assessed Bipolar disorder and health-related quality of life: review of burden of disease and clinical trials and reported that (67.11%) of the sample was unemployed but (32.89%) of the sample were employed.

Regarding the residence of the patients, the current study findings indicated that less than half of the studied sample was lived in urban areas and more than half of them lived in rural regions. This result may be due to decrease number of governmental psychiatric /health hospital and institutions in rural areas so, increase follow in psychiatric hospital in urban areas that contain different specialties which severs different diagnosis. This result is consistent with **Panigrahi et al., (2017)**, who assessed Quality of life in caregivers of patients with bipolar mood disorder with current manic episode and its correlation with severity of illness and found that 62% of the patients resided in urban areas and 38% in rural areas.

Regarding health history of the studied sample in the current study, the first 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 ± 4.645 years first complain. This is may be due to delayed medical care seeking and poor adherence to treatment regimen and The fact that BD symptoms flare-up and subside, combined with the misdiagnosis of symptoms, has made BD a difficult disease to be recognized, and treated.

This result supported by **Khosravani et al., (2019)**, who assessed early maladaptive schemas and suicidal risk in inpatients, with bipolar disorder and stated that the duration of illness in their studied sample which age of BD onset, years was 26.6 ± 8.2 and a mean of illness was 10.2 ± 4.8 .

Regarding the number of years since 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 contradicting with **Pompili et al. (2018)**, who assessed impact of living with bipolar patients: Making sense of caregivers' burden and reported that the majority of patients (77%) had duration of illness in the range of 1-5 years, nearly half of them were never hospitalized, the majority (55%) of patients had from one to two years manic episodes, most of them (64%) had from three to five years episodes of depression.

Regarding precipitating factors, slightly less than two thirds of studied the sample had positive precipitating factors, while more than one third of them had negative precipitating factors. This is may be due to childhood factors such as sexual or physical abuse, neglect, the death of a parent, or other traumatic events can increase the risk of bipolar disorder later in life. Highly stressful events such as losing a job, moving to a new place, or experiencing a death in the family can also trigger bipolar disorder. Lack of sleep can also increase risk of a manic episode and if have a relative in his/her family with bipolar disorder, such as a parent or sibling, then may be at higher risk for the mood disorder .

This result is in agreement with **Prasad et al., (2016)**, who assessed psychopathology, disability & family burden of patients with schizophrenia and bipolar affective disorders –a comparison and reported that less than three quarter (70%) of the sample had positive precipitating factors, while less than one third (30%) had negative precipitating factors.

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 is may be due to most people with bipolar disorder can be treated through using a combination of different treatments that help to control signs and symptoms of illness and the medication is most effective when used in combination with other bipolar disorder treatments; including therapy, and healthy lifestyle choices. , all this items help the patients to manage side effects of medication. This result is supported by **Fatah-allah (2016)**, who revealed that the majority (90%) 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, et al., (2018)**, who assessed early maladaptive schemas in bipolar disorder and reported that , less than two third of the sample (65%) hadn't history of psychiatric symptoms, while more than one third (35%) had history of psychiatric symptoms among their families' members.

Regarding compliance of 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 **Sierra, Livianos, & Rojo (2016)**, who assessed Quality of life for patients with bipolar disorder: relationship with clinical and demographic variables and showed that the majority (82%) of sample were good compliance with medication and less than one fifth (18%) of the sample were partial or poor compliance with medication.

Concerning the patient knowledge regarding percentage of total knowledge among patients with bipolar disorder understudy pre and post intervention, the current study revealed that, more than half of the studied sample had satisfactory level of knowledge pre intervention and the majority of them enhanced to (85%) post- intervention. This result may be because 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 independency in all aspects of their life through motivate and increase patient's readiness to learn from the intervention program.

Regarding total QOL, the current study revealed that, there was a highly significant difference between pre and post - intervention regarding total QOL ($P \leq 0.001$), and there were more than three quarters of studied sample had negative QOL in pre-intervention, while less than three quarters of studied sample had positive QOL in post-intervention. This result may be life satisfaction is increased in parallel with the modifying their abilities. Other explanation of this result the majority of the studied sample had positive physical, social, self-esteem, cognition and sleep QOL. Finding positive meaning of situation, trust in God mercy and able to cope with signs and symptoms of their illness which affect the patient's acceptance of situation.

This result is consistent with **Khan, Agrawal, Qureshi, and Sharma (2016)**, who assessed quality of life in bipolar and unipolar depressive patients: clinical and socio-demographical correlates and reported that there were a highly statistically significant differences between study and control groups as regarding total QOL dimension ($p < .001$). Similarly, **Fletcher et al., (2018)**, studied web-based intervention to improve quality of life in late stage bipolar disorder (ORBIT): randomized controlled trial protocol and suggested that, psycho educational intervention is more effective in people in late stage bipolar disorder.

Regarding the relation between the patient's socio-demographic characteristics and total QOL, the current study revealed that, there were statistically significant difference between gender, and age and total QOL post- intervention among patients with bipolar disorder, in which ($p \leq 0.05$). This result is consistent with **Abraham, et al., (2014)**, who studied self-efficacy and quality of life among people with bipolar disorder and noticed a statistically significant relationship between age and QOL regarding mental and physical HRQOL.

Regarding the relation between the patient's occupation status and total QOL, the current study revealed that, there was statistically significant difference between occupation status and total QOL post intervention among patients with bipolar disorder, in which ($p \leq 0.05$). This result may be due to less than one third of the sample were employees and less than three quarter of the sample were the sole breadwinners of their families, which motivate them to be independent.

Concerning patients' clinical data and total QOL, this study revealed that there were statistically significant difference between years since bipolar disorder, family history regarding psychiatric illness and compliance of treatment, in which ($p < 0.05$). In addition, there were no statistically significant difference between years since diagnosis of bipolar disorder, Precipitating factors of bipolar disorder, and side effects of medication and total QOL pre- and post- intervention among patients with bipolar disorder, in which ($p > 0.05$). This result is consistent with **Khan, Agrawal, Qureshi, and Sharma (2016)**, who found that there were no statistically significant correlation between all QOL parameters and clinical characteristics in Patients with bipolar patients.

The current study revealed that, there was a highly statistically significant correlation between total knowledge and total QOL in post- intervention. In addition, there was a statistically significant correlation between total knowledge and total QOL in pre- intervention among patients with bipolar disorder, in which ($p < 0.05$).

5. CONCLUSION

According to the results of this study, it can be included that: two fifths of patient understudy were in age from 35-40 years old with mean age of 32.10 ± 5.900 , and three fifths of them were females. Also, the near half of them had finishing secondary education. As Regards their occupation, more than half of the studied sample was unemployed but less than one third of them were employed.

In addition, the implementation of the intervention program had statistically positive effect on the QOL dimensions among patients with bipolar disorder. There was a highly statistically significant difference between pre- and post-intervention as regarding total knowledge. In addition, there were more than three quarters of study sample had negative regarding total QOL pre-intervention, while less than three quarters of them had positive total QOL post-intervention and Finally, there was statistically significant difference between socio-demographic, clinical data and total QOL post-intervention among patients with bipolar disorder.

6. RECOMMENDATIONS

- Designing a comprehensive nursing protocol focusing on liaison role of psychiatric nurse to facilitate psychosocial adjustment among bipolar disorder patients through providing care, support, and guidance.
- Replication of the study is required to compare QOL among patients with bipolar disorder in depressive and manic episodes.

- Establishment of a web site or a hotline under medical and nursing supervision to provide information about the disease, places of treatment, and psychosocial support. In addition, help individuals that are with BD and their families to access available resources.

- Continuous training program of a holistic approaches (health education; and physical, psychosocial, and spiritual support) for the patients with BD and their families.

REFERENCES

- [1] **Abraham, K., Miller, C., Birgenheir, D., Lai, Z., & Kilbourne A. (2014):** Self-Efficacy and Quality of Life among People with Bipolar Disorder. *Journal of Nervous & Mental Disease*, volume (202), No. (8), pages: 583-588. Retrieved from <https://www.researchgate.net/publication/263817002>.
- [2] **Ak, M., Lapsekili, N., Haciomeroglu, B., Sutcgil, L. & Turkcapar, H. (2018):** Early maladaptive schemas in bipolar disorder. *Journal of the British Psychological Society. Psychology and Psychotherapy: Theory, Research and Practice* (2018), 85, 260–267
- [3] **Fatah-allah, F. T. (2016):** Quality of life among patients with bipolar disorder. Master thesis, Psychiatric mental health nursing, Faculty of Nursing, Ain Shams University.
- [4] **Fletcher, K., Foley, F., Thomas, N., Michalak, E., Berk, L., Berk, M., Bowe, S., Cotton, S., Engel, L., Johnson, S.L., Jones, S., Kyrios, M., Lapsley, S., Mihalopoulos, C., Perich, T.& Murray, G. (2018)** Web-based intervention to improve quality of life in late stage bipolar disorder (ORBIT): randomized controlled trial protocol. *Journal of BMC Psychiatry*. 2018 Jul 13; 18(1):221. doi: 10.1186/s12888-018-1805-9.
- [5] **Fulford, D., Peckham, A.D., Johnson, K., & Johnson, S.L. (2019):** Emotion perception and quality of life in bipolar I disorder. *Journal of Affective Disorders*. 152-154:491–7. doi: 10.1016/j.jad.2019.08.034.
- [6] **Gomes, B.C., Kleinman, A., Ferrari, A., Carvalho, A., Pereira, T.C.F., Gurgel A.P., et al. (2018):** Quality of life in youth with bipolar disorder and unaffected offspring of parents with bipolar disorder. *Journal of Affective Disorder*. 2018; 202:53-7. doi: 10.1016/j.jad.2018.05.041.
- [7] **Havermans, R., Nicolson, N.A., Devries, M.W. (2017):** Daily hassles, uplifts, and time use in individuals with bipolar disorder remission. *The Journal of Nervous and Mental Disease*. 2017; 195(9):745-51. doi: 10.1097/nmd.0b013e318142cbf0.
- [8] **Khan, A. A., Agrawal, S., Qureshi, R. & Sharma, V. (2016).** Quality of life in bipolar and unipolar depressive patients: clinical and socio-demographical correlates. *Journal of J. Evolution Med. Dent. Sci*. 2016; 5(37):2207-2212, DOI: 10.14260/jemds/2016/513.
- [9] **Khosravani, V., Mohammadzadeh, A., Bastan, S., F., Amirinezhad, A., & Amini, M. (2019):** Early maladaptive schemas and suicidal risk in inpatients with bipolar disorder. *Psychiatry Research* 271 (2019) 351–359. Available at journal homepage: www.elsevier.com/locate/psychres.
- [10] **Michalak, E., & Murray, G. (2009).** CREST-BD Development of the QoL. BD: A disorder-specific scale to assess quality of life in bipolar disorder. *Bipolar Disord*. 2010;12:727–740.
- [11] **Miklowitz, D.J., & Johnson, S.L. (2017):** The psychopathology and treatment of bipolar disorder. *Annual Review of Clinical Psychology*. 2017; 2(1):199-235. doi: 10.1146/annurev.clinpsy.2.022305.095332
- [12] **Morton, E., & Murray, G. (2017):** What does quality of life refer to in bipolar disorder research? A systematic review of the construct's definition, usage and measurement. *Journal of Affective Disorder*. 2017; 212:128-37. doi: 10.1016/j.jad.2017.01.026.
- [13] **Panigrahi, S., Acharya, K .R., Patel, K. M. & Chandrani, V. K. (2017):** Quality of life in caregivers of patients with bipolar mood disorder with current manic episode and its correlation with severity of illness. *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)* e-ISSN: 2279-0853, p-ISSN: 2279-0861.13(8) Ver. II (Aug. 2017) 48-51. Available at: www.iosrjournals.org.

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 Vol. 6, Issue 2, pp: (934-946), Month: May - August 2019, Available at: www.noveltyjournals.com

- [14] **Pompili, M., Harnic, D., Gonda, X., Forte, A., Dominici, G., Innamorati, M. et al. (2018)** Impact of living with bipolar patients: Making sense of caregivers' burden. *World J Psychiatry*. 2018 Mar 22; 4(1):1-12.
- [15] **Prasad, N., Kumar, S., Balu, A., Kunhikoyamu, M. A. & Narayanankutty, S. K. (2016)** Psychopathology, Disability & Family Burden of Patients with Schizophrenia and Bipolar Affective Disorders : A Comparison. *Journal of International Medicine and Dentistry* 2016; 3(1): 12-23. DOI: <http://dx.doi.org/10.18320/JIMD/201603.0112>
- [16] **Rabie, A. M., Sabry, N., Noby, S., Shaker, M. N. & Ali, M. (2017)**. National Survey for Mental Health in Egypt One Year Prevalence of Common Mental Disorders: Community Survey". Research unit. General secretariat of mental health & addiction treatment. Ministry of health & populations (Cairo 2017).
- [17] **Revicki, A. D., Matza, S. L., Flood, E. & Lloyd, A. (2018)**: Bipolar disorder and health-related quality of life review of burden of disease and clinical trials. *Journal of Pharmacoeconomics* 2018; 23 (6): 583-594. 1170-7690/05/0006-0583/\$34.95/0
- [18] **Sierra, P., Livianos, L., & Rojo, L. (2016)**: Quality of life for patients with bipolar disorder: relationship with clinical and demographic variables. *Bipolar Disord*. 2016; 7:159-65.
- [19] **Walker, E.R., McGee, R.E., Druss, B.G. (2018)**: Mortality in mental disorders and global disease burden implications: a systematic review and metaanalysis. *JAMA Psychiatry*. 2018;72:334-41.
- [20] **Whiteford, H.A., Degenhardt, L., Rehm, J., Baxter, A.J., Ferrari, A.J., Erskine, H.E., et al. (2019)**: Global burden of disease attributable to mental and substance use disorders: findings from the global burden of disease study. *Lancet*. 2019;382:1575-86.
- [21] **World Health Organization. (2018)**. bipolar disorder, available at http://www.who.int/mental_health/management/bipolar.
- [22] **Wynter, E. & Perich, T. (2018)**: Use of self-care strategies in the management of bipolar disorder and their relationship to symptoms, illness intrusiveness, and quality of life. *Journal of the Australian Psychological Society*. Doi:10.1111/cp.12149.