

**COMPARISON OF QUALITY OF LIFE BETWEEN SCHIZOPHRENIC AND BIPOLAR  
AFFECTIVE DISORDER PATIENTS IN GOVERNMENT GENERAL HOSPITAL,  
PSYCHIATRIC OPD**

**Ravi Prakash Degala<sup>\*1</sup>, Govinda Rao Kamala<sup>2</sup>, N. Suvarna Jyothi<sup>3</sup>, Ratna Priya G.<sup>4</sup>, Hyndavi Trylockya<sup>5</sup> and  
Veera Naga Lalitha Nakkina<sup>6</sup>**

<sup>1</sup>Associate Professor and Head of the Department, Department of Pharmacy Practice, Koringa College of Pharmacy, Korangi, Kakinada, Andhra Pradesh, India.

<sup>2</sup>Professor and Vice Principal, Department of Pharmaceutical Chemistry, Koringa College of Pharmacy, Korangi, Kakinada, Andhra Pradesh, India.

<sup>3</sup>Professor and Principal Department of Pharmacology, Koringa College of Pharmacy, Korangi, Kakinada, Andhra Pradesh, India.

<sup>4</sup>Assistant Professor, Department of Pharmacy Practice, Koringa College of Pharmacy, Korangi, Kakinada, Andhra Pradesh, India.

<sup>5,6</sup>Pharm D Scholar, Department of Pharmacy Practice, Koringa College of Pharmacy, Korangi, Kakinada, Andhra Pradesh, India.



**\*Corresponding Author: Ravi Prakash Degala**

Associate Professor and Head of the Department, Department of Pharmacy Practice, Koringa College of Pharmacy, Korangi, Kakinada, Andhra Pradesh, India.

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### ABSTRACT

**Background:** Schizophrenia and Bipolar Affective Disorder (BPAD) are severe mental illnesses that significantly impair an individual's psychosocial functioning and overall quality of life (QoL). Understanding the differences in QoL among these patient groups can aid in tailoring more effective treatment and rehabilitation strategies.

**Objectives:** This study aims to compare the quality of life between patients diagnosed with schizophrenia and those with BPAD attending the Psychiatric Outpatient Department (OPD) at a Government General Hospital.

**Methods:** A cross-sectional, comparative study was conducted among clinically diagnosed schizophrenia and BPAD patients. Participants were assessed using a standardized Quality of Life scale. Demographic and clinical data were collected and analyzed using appropriate statistical methods to determine significant differences in QoL domains between the two groups. **Results:** Preliminary findings suggest that patients with BPAD tend to report better QoL scores in several domains compared to patients with schizophrenia, particularly in social and occupational functioning. However, both groups exhibited significantly reduced QoL compared to the general population. **Conclusion:** While both schizophrenia and BPAD considerably impact quality of life, schizophrenia patients may experience more profound deficits across multiple domains. These findings highlight the need for diagnosis-specific psychosocial interventions to enhance QoL in psychiatric populations.

**KEYWORDS:** Schizophrenia, Bipolar Affective Disorder, Quality of Life, Psychiatric OPD, Mental Health.

### INTRODUCTION

Quality of life can be defined in many terms, yet a number of existing definitions create a doubt or lack clarity on the approach that whether it is subjective or objective. Literally speaking, subjective approach focuses on issues such as life satisfaction, satisfaction with define needs, happiness, self-realization and growth. On the other and objective approach describes the living conditions, economic and social indicators. (M.S.Ritsner 2007)

Good quality of life (QoL) encompasses more than just good health. At a basic level, it can represent the sum of a person's physical, emotional, social, occupational and spiritual well-being, the study of which is complicated by the fact that there is no consensus as to what constitutes QoL. The World Health Organization has described QoL as "individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns" (Erin E Michalak, 2005)

According to the Psychiatry, Quality of Life means “The degree to which a person is able to function at a usual level of activity without or with minimal compromise of routine activities.” QOL reflects an overall enjoyment of life, sense of well-being, freedom from disease symptoms, comfort and ability to pursue daily activities.

The concept of Qol has its main roots outside the health care field in the Positive Psychology Movement and in Social Indicator Research of the 1960s and 1970s.(Heinz Katschnig, 2006). In medicine, it started to be used indirectly in the 1980s in what has been called Health Status Research. When among others, instruments for assessing social functioning (such as the Short Form-36, SF-36) were developed.

Over the following two to three decades, the numbers of medical publications on Qol rose slowly. Since the early 1990s, in nearly all fields of medicine a tremendous increase can be observed. According to a Medline search, more than 7000 papers were published on Qol in 2004, a more than threefold increase over 1995.

The build up of quality of life (QOL) has become important with the increasing significance on assessing treatment outcomes and patient satisfaction with health care. Over the past 20 years, several definitions have been proposed and numerous scales originated. With the increasing awareness of the multi-dimensionality of treatment outcome and the importance of patient satisfaction, QOL is now generally preferred by the patients themselves, (Heinz Katschnig 2006).

### QOL AND MENATAL ILLNESS

Quality of life of persons with severe mental illness would be substantial and sustained due to its negative impact on the illness. Studies also showed that individuals with severe mental illness living in long term institutional set up had poorer quality of life than those living in the community.

One of the study demonstrated that unmet basic social and functioning needs were the largest predictors of poor quality of life among individuals with severe mental disorder, (Prathima 2005).

### RESEARCH STUDIES ON QOL

Broadly, quality of life is a person’s sense of wellbeing and satisfaction with his or her life circumstances as well as a person’s health status and access to resources and opportunities. Unfortunately, the factors that influence quality of life in schizophrenia and affective disorder are not well known. One such factor consistently shown to be negatively associated with quality of life is psychiatric symptoms, (prathima 2005).

### SCHIZOPHRENIA

Schizophrenia is a chronic heterogenous condition which is characterized by disorganized and bizarre thoughts, delusions, hallucinations, inappropriate affect, cognitive

deficits and impaired psychosocial functioning, (Barbara G.wells 2009).

### EPIDEMIOLOGY

Schizophrenia occurs throughout the world. The prevalence of schizophrenia (ie, the number of cases in a population at any one time point) approaches 1 percent internationally. The incidence (the number of new cases annually) is about 1.5 per 10,000 people.(McGrath J,2008)

Age of onset is typically during adolescence; childhood and late-life onset (over 45 years) are rare. Slightly more men are diagnosed with schizophrenia than women(Abel KM, Drake R, 2010)on the order of 1.4:1), and women tend to be diagnosed later in life than men. Model age of onset is between 18 and 25 for men and between 25 and 35 for women, with a second peak occurring around menopause.(,Arlington 2000.). Here is also some indication that the prognosis is worse in men.(Grossman LS,2008, Usall J 2003)

### BIPOLAR AFFECTIVE DISORDER

Bipolar disorder is a cyclic mental illness with recurrent mood episodes that occur over a person’s lifetime. The symptom’s, course, severity, and response to treatment differ among individuals. (Martha P. Fankhauser, 2005). Bipolar affective disorder is a mental health condition that causes severe mood swings. Patient mood can vary from excitement and happiness, known as mania, to depression and distress, Rachael Mayfield-Blake, (2015). Bipolar disorder is the sixth leading cause of disability in the developed world among those between the ages of 19 and 45 years. The total lifetime cost of illness, with onset in 1998, is estimated at 24 billion US Woods SW dollars. (Woods SW 2000). (Begley CE 2006), (Lopez AD, 2006). The lifetime prevalence of bipolar disorder type I in the US is estimated to be between 0.5% and 1.0%, affecting men and women equally., (Kessler RC 1997) (Merikangas KR 2007).

### QUALITY OF LIFE IN SCHIZOPHRENIA

In the last decades, there has been multiplied interest in the field of quality of life in mental disorders in general, and particularly in schizophrenia, (Bobes J., 2005). By analyzing numerous studies in the literature pertaining to the quality of life of schizophrenic patients, we have found substantial contrast in the methodology applied, thus molding it difficult to demonstrate comparisons. However, it can be finalized that quality of life of schizophrenic patients is characterized in general, by the following aspects

- It is inferior than that of the usual population and that of other physically ill patients.
- Young people, women, married persons, and those with a low level of education report a better quality of life.
- The more the duration of illness, the inferior the quality of life.

- Psychopathology, especially negative and depressive syndromes, corresponds negatively with quality of life.
- Fewer side effects and the combination of psychopharmacological and psychotherapeutic treatment increase quality of life.
- Patients integrated in community support programs indicate a better quality of life than those who are systematized, (Julio Bobes 2007)

### QUALITY OF LIFE IN BIPOLAR DISORDER

Rojas et al. (2008) in his study evaluated the quality of life of patients suffering from bipolar disorder in comparison with the general population. It was discovered that patients with bipolar disorder present worse mental health than the general population, (Rojas et al. (2008) in addition, bipolar disorder patient have a poorer quality of life at a physical level. This could be due to a higher consumption of addictive substances such as alcohol and tobacco, the long-term secondary effects of the pharmacological treatment and a more sedentary way of life.

### IMPACT OF SOCIODEMOGRAPHIC CHARACTERISTICS IN SCHIZOPHRENIA AND BIPOLAR DISORDER

Schizophrenia is classically described as a disease of exacerbations and remissions, it is a severe and debilitating disorder, which affects general health, functioning, autonomy, subjective wellbeing, and life satisfaction of those who suffer from it. Patients with schizophrenia invariably have a deteriorating course of illness. Over their life-time the range of recovery varies greatly. Several studies have confirmed poor quality of life in schizophrenia despite significant improvement with pharmacological treatment.

Ten quality of life domains were identified as being important:

- (1) barriers placed on relationships;
- (2) reduced control of behaviors and actions;
- (3) loss of opportunity to fulfill occupational roles;
- (4) financial constraints on activities and plans;
- (5) subjective experience of psychotic symptoms;
- (6) side effects and attitudes to medication;
- (7) psychological responses to living with schizophrenia;
- (8) labelling and attitudes from others;
- (9) concerns for the future and
- (10) positive outcomes from experiences.

Participants identified that it was the loss of these things as a direct consequence of having schizophrenia that influenced their quality of life.

### SCALES

Generally disease specific scales are used measure the quality of life, severity, and outcomes of therapy, for schizophrenia the scales like Brief Psychiatric Rating Scale (BPRS), Calgary Depression Scale for Schizophrenia (CDSS), Positive and Negative Syndrome

Scale (PANSS), Scale for the Assessment of Positive Symptoms (SAPS), and Scale for the Assessment of Negative Symptoms (SANS) are used. In case of bipolar disorder the scales like Altman Self-Rating Mania Scale (ASRM), Bipolar Spectrum Diagnostic Scale, Child Mania Rating Scale, General Behavior Inventory, Hypomania Checklist, Mood Disorder Questionnaire (MDQ), Young Mania Rating Scale (YMRS) are used. The scales used to measure the QOL are Quality of Life Scale, QOLS, Comprehensive Quality Of Life Scale, Manchester Short Assessment of Quality of Life. But this study is about two disabilities so if two scales were taken it will be difficult to evaluate QOL of both disabilities. So the WHO BREF SCALE is preferred in this study.

### WHO BREF SCALE

The World Health Organization Quality of Life (WHOQOL) project was initiated in 1991. The aim was to develop an international cross-culturally comparable quality of life assessment instrument. It assesses the individual's perceptions in the context of their culture and value systems, and their personal goals, standards and concerns. The WHOQOL instruments were developed collaboratively in a number of centres worldwide, and have been widely field-tested.

Recently, many general instruments have been used to measure QOL in different groups (e.g., patients, workers, population and so on). One of these instruments is the World Health Organization QOL-BREF (WHOQOL-BREF) questionnaire which captures many subjective aspects of QOL (Noerholm V, 2004) (Shahrum Vahedi 2010). This questionnaire is one of the best known instruments that has been developed for cross-cultural comparisons of QOL and is available in many languages. This instrument, by focusing on individuals' own views of their well-being, provides a new perspective on life, (Ali Gholami et al 2013). The findings from this study confirm that the WHOQOL-BREF questionnaire is a reliable instrument to measure quality of life in health-care staff. From the data it appears that Neyshabur health-care staffs have WHOQOL-BREF scores that might be considered to indicate a relatively moderate quality of life. In this study observed that chronic disease in health-care staff is an important health issue influencing quality of life of them. (Gholami A 2013) As a valuable generic instrument, WHOQOL-BREF appears to provide useful results consistent with clinical and theoretical knowledge and seems suited for assessing quality of life in psychiatric patients in areas to be selected as potentially relevant targets for therapeutic intervention, (YILDIZ AKVARD 2006).

Domains	Facets incorporated within domains
1. Physical health	Activities of daily living Dependence on medicinal substances and medical aids Energy and fatigue Mobility Pain and discomfort Sleep and rest Work Capacity
2. Psychological	Bodily image and appearance Negative feelings Positive feelings Self-esteem Spirituality / Religion / Personal beliefs Thinking, learning, memory and concentration
3. Social relationships	Personal relationships Social support Sexual activity
4. Environment	Financial resources Freedom, physical safety and security Health and social care: accessibility and quality Home environment Opportunities for acquiring new information and skills Participation in and opportunities for recreation / leisure activities Physical environment (pollution / noise / traffic / climate) Transport

**SOCIO-DEMOGRAPHIC CHARACTERISTICS**

**1. Age**

**Schizophrenia:** Earlier age of onset results in prolonged length of illness considering the patient’s lifespan. A lower age of onset marks in a poorer baseline functioning especially related to work and social adjustment.

**Bipolar Disorder:** Elderly bipolar manic patients differ from younger bipolar manic patients regarding treatment but not treatment outcome, (Frits Oostervink 2006).

**2. Gender**

**Schizophrenia:** Schizophrenia women experience a less severe course of illness than schizophrenic women. Negative symptoms may have been reported more often in the past among men because men are frequently prescribed higher doses of neuroleptics, (Mary V Seeman).

**Bipolar Disorder:** Bipolar disorder develops in men and women in about equal numbers. women with a disorder tend to have more depressive and fewer manic episodes than men.

**3. Substance Abuse**

**Schizophrenia:** Nicotine was the commonest substance followed by cannabis and alcohol (Bernadette Winklbaaur, 2006). It interacts with several central pathways involved in schizophrenia, such as the dopaminergic and the glutamatergic pathways in the mesolimbic areas.

**Bipolar Disorder:** Bipolar patients with excessive substance use clearly had impaired functioning, but not a worse course of illness compared to patients without excessive substance use, (A.Trine V Lagerberg, 2010).

**4. Family support:** Family responses to having a family member with schizophrenia and bipolar disorder include:care burden, fear and embarrassment about illness signs and symptoms, uncertainty about course of disease, lack of social support and stigma among family members.

**5. Duration of illness**

**Schizophrenia:** Many studies documented that prolonged duration of untreated illness is predictive of treatment non-response, resulting in worse outcome. (Loebel AD, 2006).

**Bipolar disorder:** The patients who are diagnosed earlier will have a better quality of life than those diagnosed later. Longer the length of untreated illness results in poor clinical outcomes, (Jeannette Y, 2015).

**6. Comorbidities**

**Diabetis:**Type-2 Diabetis mellitus have deleterious health impacts in people with severe mental illness i.e, schizophrenia, bipolar disorder or major depressive disorder, (Davy Vancampfort, 2016).

**Hypertension:** Bipolar disorder is associated with increased risk of high blood pressure. While there is growing evidence that the high blood pressure drugs target may play a role in the development of mood disorders, (Hannah Nichols, 2019)

**7. Marital status**

Marital status was also identified as one of the best predictors of evolution in schizophrenia. Being married and having adequate pre-morbid psychosocial adaptation are related to a more favorable prognosis. (PRABHAT K. CHAND).

**8. Patient Compliance**

Non-compliance is not a frequent issue in short duration of illness or acute illness. Incontrast, patients suffering from chronic diseases, or with non-apperance of symptoms are mostly non-compliant. Hence great care and effort should be taken for chronic disease patients in order to diminish non-compliance(Julio Bobes, 2007).

**METHODOLOGY**

**STUDY SITE:** Psychiatry out patient department, Government General Hospital, Kakinada.

**STUDY DURATION:** The study period includes the sample collection was done for a period of 6 months a minimum of 80 patients of each diagnosis were considered.

**SAMPLE SIZE:** A minimum of 80 patients of each diagnosis were considered.

**STUDY DESIGN:** Cross sectional observational study

**INCLUSION CRITERIA**

- Patients reporting to the psychiatry OPD who were diagnosed to have schizophrenia and bipolar disorder according to ICD 10 diagnostic criteria for greater than 1 year of duration
- Patients of age ≥18 years or more.
- Patients of both genders.
- Patients who agreed to give an informed consent.

**EXCLUSION CRITERIA**

Patients with acute illness (less than 6months of disease)

**SOURCE OF DATA COLLECTION**

Direct interaction with patients/ patient’s care givers, when patients were uncooperative. Interviews was

conducted by the research associates involved in the study in a language familiar to the patient.

**ETHICAL COMMITTEE CLEARANCE**

The Institutional ethical committee approved our study. It doesn’t involve any administration of drugs to humans or animals and as there is no collection of specimen or serum samples, informed consent form was collected from the patients to collect data.

**STUDY INSTRUMENTS**

**1) Semi structured self prepared socio demographic clinical data scale**

**2) WHO BREF**

The WHOQOL-100 quality of life assessment was developed by the WHOQOL Group with fifteen international field centres, simultaneously, in an attempt to develop a quality of life assessment that would be applicable cross-culturally. This document gives a conceptual background to the WHOQOL definition of quality of life and describes the development of the WHOQOL-BREF, an abbreviated version of the WHOQOL-100. It also includes a generic English language version of the WHOQOL-BREF, instructions for administering and scoring, and proposed uses for this short form of the WHOQOL.

The WHOQOL-100 allows detailed assessment of each individual facet relating to quality of life. In certain instances, however, the WHOQOL-100 may be too lengthy for practical use. The WHOQOLBREF Field Trial Version has therefore been developed to provide a short form quality of life assessment that looks at Domain level profiles, using data from the pilot WHOQOL assessment and all available data from the Field Trial Version of the WHOQOL-100. The WHOQOL-BREF contains a total of 26 questions. To provide a broad and comprehensive assessment, one item from each of the 24 facets contained in the WHOQOL-100 has been included. In addition, two items from the Overall quality of Life and General Health facet are also found in the scale.

**WHOQOL-BREF Items/Domains**

Domain 1: Physical Health Q3 Physical pain Q4 Dependence medication Q10 Energy Q15 Mobility Q16 Sleep and rest Q17 Activities of daily living Q18 Working capacity	Domain 2: Psychological Health Q5 Life enjoyment Q6 Meaningfulness of life Q7 Concentration Q11 Body appearance Q19 Self-esteem Q26 Negative feelings
Domain 3: Social Relationships Q20 Personal relationship Q21 Sexual activity Q22 Social support	Domain 4: Environment Q8 Safety Q9 Physical environment Q12 Financial resources Q13 Daily information Q14 Leisure Q23 Home environment

	Q24 Access to health Q25 Transport
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**Scoring**

Participants express how much they have experienced the items in the preceding 2 weeks on a 5-point Likert scale ranging from 1 (not at all) to 5 (completely). Items scored 1-5. Raw domain score is the sum of respective item scores. Then the mean of each item raw score is calculated.

- For domain 1, the maximum score is 35, and the minimum score is 7, so the mean (cut-off value) for domain1 is 20.
- For domain 2, the maximum score is 30, and the minimum score is 6, so the mean (cut-off value) for this domain is 18.
- For domain 3, the maximum score is 15 and minimum score is 3, so the mean (cut-off value) for this domain is 9.
- For domain 4, the maximum score is 40 and minimum score is 8, so the mean (cut-off value) for domain is 24.
- The four domain scores denote an individuals perception of quality of life in each particular domain. Domain scores are scaled in a positive direction (i.e. higher scores denote higher quality of life).
- Patients reporting to the psychiatric OPD of GGH, Kakinada were seen by a qualified psychiatrist who diagnosed them based on ICD 10 criteria. Such patients diagnosed with schizophrenia and bipolar disorder at least for a period of 1 year or more were

approached and explained the study. The inclusion and exclusion criteria were applied and accordingly were enrolled into the study.

- After enrolling, a return informed consent was taken from the patients and were applicable from their care-givers.
- A research assistant involved with the study collected the patient particulars with semi structured self prepared socio demographic data.
- Then the WHO-QOL-BREF scale was translated into the patient’s local language and applied. This interview took approximately 20mins during which patient’s response was noted in research questionnaire.
- The individual patient’s score was calculated and all the values are entered into excel sheet.
- The data collected was entered into SPSS 2.0 version.

**STATISTICAL TESTS**

The mean and standard deviation of all sample characteristics are calculated, For comparing the quality of life between the two groups (i.e, schizophrenia and bipolar disorder) one way anova is used. In one way anova, the diagnosis is taken as between-subject grouping factor and the WHOQOL-BREF domains as within-subject grouping factor.

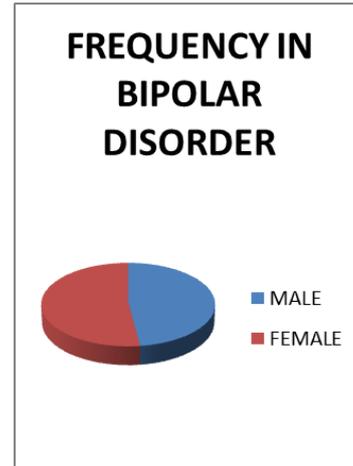
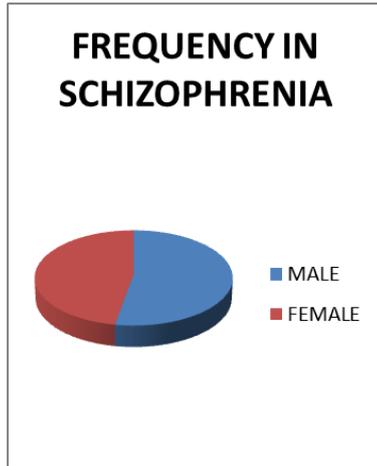
**RESULTS**

**TABLE 3: SAMPLE CHARACTERISTICS.**

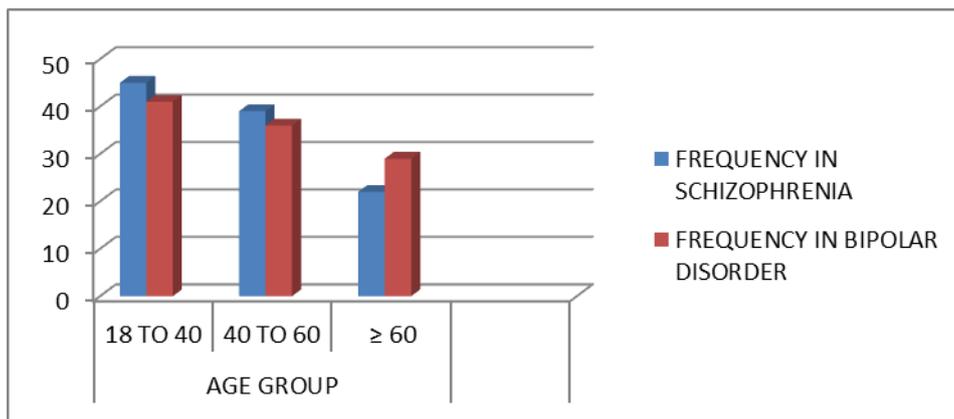
A sample size of 181 patients were obtained during the study

S.No	PARAMETERS	DIVISIONS	SCHIZOPHRENIA (%)	BPAD (%)
1.	Age	18 to 40years	41,(44.56%)	34,(38.20%)
		40 to 60 years	33,(35.86%)	31,(34.83%)
		Above 60 years	18,(19.56%)	24,(26.96%)
2.	Gender	Male	40,(43.47%)	35,(39.32%)
		female	52,(56.52%)	54,(60.67%)
3.	Marital status	Single	26,(28.26%)	25,(28.08%)
		Married	46,(50%)	54,(60.67%)
		Divorced/ separated	11,(11.95%)	21,(23.59%)
		Widow	9,(9.782%)	15,(16.85%)
4.	Family support	Yes	75, (81.52%)	59, (66.29%)
		No	17, (18.47%)	30, (33.70%)
5.	Substance Abuse	Yes	27, (29.34%)	22, (24.71%)
		No	65, (70.65%)	66, (74.15%)
<b>Clinical variables:</b>				
1.	Duration of untreated illness	>1year	92(100%)	89(100%)
2.	Medical Comorbidities	Hypertension	5, (4.71%)	11, (12.35%)
		Diabetes	4, (3.77%)	10, (11.23%)
3.	Patient compliance	Yes	54,( 58.69%)	50(56.17%)
		No	38(41.30%)	39(43.82%)

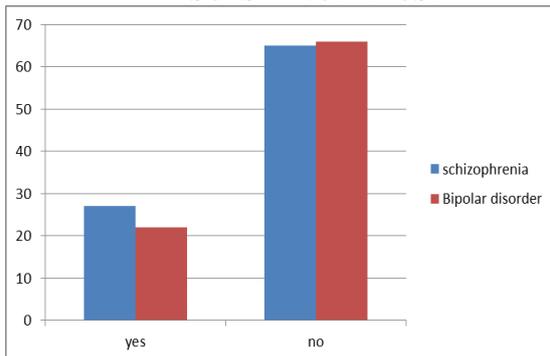
**GENDER**



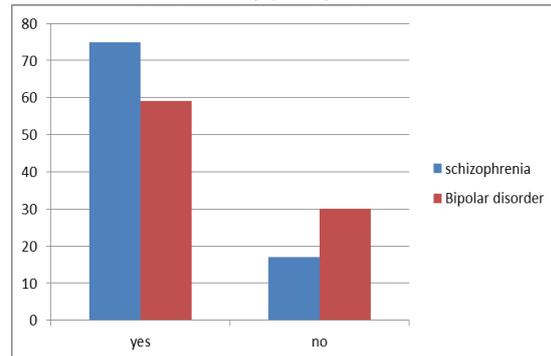
**AGE**



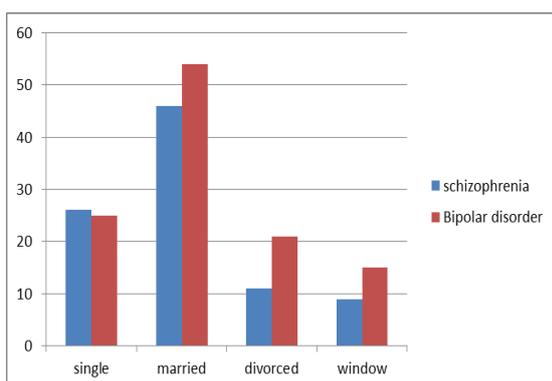
**SUBSTANCE ABUSE**



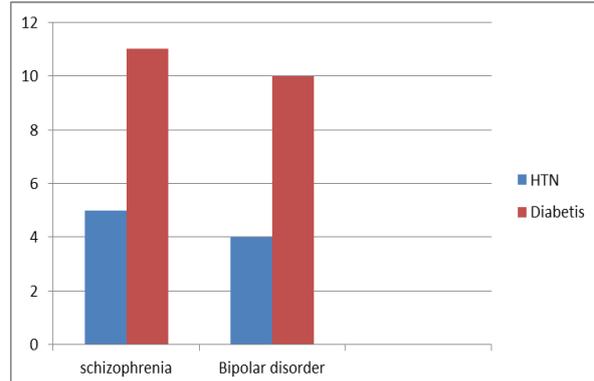
**FAMILY SUPPORT**



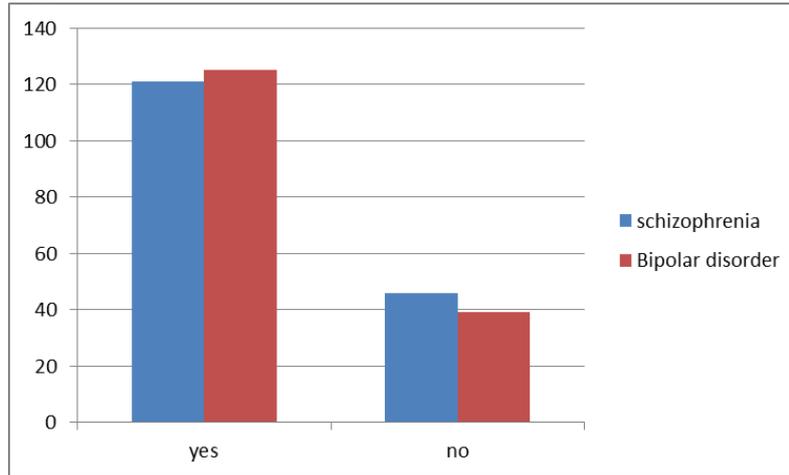
**MARITAL STATUS**



**COMORBIDITIES**



**PATIENT COMPLIANCE**



**TABLE 4: Means and Standard Deviations Of Schizophrenia And Bipolar Disorder.**

S. No	Name of Domains	Schizophrenia (Mean ± SD)	BPAD (Mean ± SD)
1.	Physical	17.56±2.46	17.58±2.78
2.	Physiological	13.30±2.15	13.44±3.04
3.	Social	8.58±1.83	8.22±2.01
4.	Environmental	20.65±3.07	20.62±3.44

**TABLE 5: QOL IN SCHIZOPHRENIA.**

S. No	Name of Domains	SCHIZOPHRENIA			
		GOOD QOL		BAD QOL	
		Frequency	%	Frequency	%
1.	Physical	18	19.50%	74	80.43%
2.	Physiological	3	3.26%	89	96.73%
3.	Social	80	86.95%	12	13.04%
4.	Environmental	13	14.13%	79	88.04%

**TABLE 6: QOL IN BIPOLAR DISORDER.**

S. No	Name of Domains	BIPOLAR DISORDER			
		GOOD QOL		BAD QOL	
		Frequency	%	Frequency	%
1.	Physical	19	21.34%	70	78.65%
2.	Physiological	9	10.11%	80	89.88%
3.	Social	71	79.77%	18	20.22%
4.	Environmental	16	17.97%	73	82.02%

**TABLE 7: Over-All Qol In Schizophrenia And Bipolar Disorder.**

S.No	NAME OF THE DOMAINS	OVERALL QUALITY OF LIFE			
		SCHIZOPHRENIA		BIPOLAR DISORDER	
		Good QOL	Bad QOL	Good QOL	Bad QOL
1.	Physical	50%	51.03%	50%	48.96%
2.	Physiological	27.27%	52.35%	72.72%	47.64%
3.	Social	53.33%	38.70%	46.66%	61.29%
4.	Environmental	46.42%	51.63%	53.57%	48.36%

**TABLE 8: Quality Of Life In Schizophrenia (ANOVA).**

S. No	Name of the Domains	Df (Between the groups, within the groups)	F-value	p-value
1.	Physical	1,90	84.02	<0.00001
2.	Physiological	1,90	23.72	<0.00001
3.	Social	1,90	66.94	<0.00001
4.	Environmental	1,90	84.44	<0.00001

**TABLE 9: Quality Of Life In Bipolar Disorder (ANOVA).**

S. No	Name of the Domains	df (Between the groups, within the groups)	F-value	p-value
1.	Physical	1,86	122.84	<0.00001
2.	Physiological	1,86	64.94	<0.00001
3.	Social	1,86	82.88	<0.00001
4.	Environmental	1,86	83.36	<0.00001

**TABLE 10: Comparison Of Quality Of Life Between Schizophrenia And Bipolar Disorder (ANOVA).**

S. No	Name of the Domains	df(Between the groups,within the groups)	F-value	p-value
1.	Physical	1,142	0.0585	0.809235
2.	Physiological	1,167	1.0307	0.311445
3.	Social	1,28	0.0402	0.842375
4.	Environmental	1,150	0.2947	0.587997

**TABLE 11: Factors Affecting Quality Of Life Between Schizophrenia And BPAD.**

S. No	FACTORS	df	F-VALUE	p-VALUE
1.	AGE	5	61.5801	<0.0001
2.	SUBSTANCE ABUSE	-1	-0.19	<0.0001
3.	GENDER	-1	-2.4	<0.001
4.	DURATION OF UNTREATED ILLNESS	3	3.16	0.064228
5.	COMORBIDITIES	3	1.46	0.274690
6.	FAMILY SUPPORT	1	0	1.000000
7.	MARITAL STATUS	1	0	1.000000
8.	PATIENT COMPLIANCE	-1	-1.4	<0.001

**DISCUSSION**

Our studies stated that there is no significant difference between the quality of life in patients suffering from schizophrenia and bipolar disorder, it means both the groups have an equal impact on the quality of life of the patients. Bipolar disorder is an episodic illness, in which the disease can be resolved or recovered if the patients were taking proper medication, but in our study the results show an impaired quality of life in bipolar disorder, because our study was conducted in a general hospital where most of the population are coming from a rural area, with a lack of income, lack of family support, lack of proper knowledge about the disease, lack of knowledge on the usage of medication and finally lack of education status.

**QUALITY OF LIFE IN SCHIZOPHRENIA**

In our study patients with schizophrenia were experiencing lower quality of life especially in physical, physiological and environmental domains but in case of social domain the patients were experiencing better quality of life.

Analogous to our thesis, Sartorius did an article on “Fighting schizophrenia and its stigma” and concluded that Schizophrenia can devastate the lives of people who suffer from it and the lives of their families. People with schizophrenia suffer distress, disability, reduced productivity and lowered quality of life (QoL) (Sartorius, 1997). Identical to our study, Tatiana Fernandes Carpinteiro da Silva did an article on Quality of life assessment of patients with schizophrenic spectrum disorders from Psychosocial Care Centers and concluded

that there was an impairment in Quality of life of schizophrenic patients found in this study was high and was associated primarily with factors such as marital status, race, occupation, who patients lived with, having children, homelessness, previous hospitalizations and type of symptoms. (Tatiana Fernandes Carpinteiro da Silva) Similar to our study, Amira Alshowkan did a study on Factors Affecting the Quality of Life for People with Schizophrenia in Saudi Arabia: A Qualitative Study and concluded that the shame of having a mental illness negatively affects the social engagement of Saudi Arabian people with schizophrenia, limiting their participation in leisure and work activities and therefore diminishing their QoL. (Amira Alshowkan 2015) Analogous to our thesis, Krystyna Górna did a study on Social functioning and quality of life in schizophrenia patients: relationship with symptomatic remission and duration of illness and concluded that patients with schizophrenia did not get a symptomatic remission and had worse social functioning and quality of life compared to patients with remission and to healthy controls. (Krystyna Górna 2014) Identical to our study, Kerstin Skantze did a study on quality of life in schizophrenia and concluded that many schizophrenic outpatients have to face a rather low quality of life, even if they have good physical and social standards of living.(Kerstin Skantze 1990).

**QUALITY OF LIFE IN BIPOLAR DISORDER**

Our results stated that bipolar disorder has an impact on quality of life, subjects with bipolar disorder are experiencing lower quality of life. In physical, physiological and environmental domains the quality of

life of bipolar disorder was worse. In case of social domain patients are experiencing a better quality of life.

Similar to our study, Erin E. Michalak<sup>1</sup> made a research on Bipolar disorder and quality of life: A patient-centered perspective, and concluded that Findings indicate that there is a complex, multifaceted relationship between BD and QoL. Most of the affected individuals we interviewed reported that BD had a profoundly negative effect upon their life quality, particularly in the areas of education, vocation, financial functioning, and social and intimate relationships. (Erin E. Michalak<sup>1</sup> 2006) Analogous to our study, Namjoshi MA did the study on A review of the health-related quality of life literature in bipolar disorder and concluded that patients with bipolar disorder have lower quality of life than patients with schizophrenia. (Namjoshi MA, 2001)

Identical to our study, Soumya P. Thomas did the study on Disability and Quality of Life of Subjects with Bipolar Affective Disorder in Remission and concluded that Many bipolar patients in remission have significant disability and poorer QOL. (Soumya P. 2017) Contrary to our study, Kristen M. Abraham done a study on “self efficacy and QOL among people with bipolar disorder” and concluded that people with bipolar disorder experience a lower quality of life than the general population and few mutable factors associated with HRQOL among people with bipolar disorders have been identified, higher levels of self efficacy were expected to be associated with higher levels of mental and physical HRQOL. (M. Abraham 2014) Analogous to our study, Pilar Sierra did a study on Quality of life for patients with bipolar disorder: relationship with clinical and demographic variables, finally concluded that Bipolar patients experience lower functioning and well-being even in the stable phase of the disorder. (Pilar Sierra 2005). In our study, we observed that people with bipolar disorder had the work related absenteeism, analogous our study, Dean BB evaluated the association between bipolar disorder and work impairment and he stated that People with bipolar disorder had higher rates of work impairment compared with people without the disorder, including individuals with other types of mental illness. The analysis showed that bipolar disorder substantially decreases a person's health-related quality of life and increases costs associated with medical care and work impairment. (Dean BB, Gerner D2004). Similar to our study, Eissa, Mohamed F did study on “The quality of life in patients with bipolar disorder who have achieved remission in an Egyptian sample” and concluded that QoL of bipolar patients in remission is lower than that of the controls. (Eissa, Mohamed F 2012).

#### COMPARISON OF QUALITY OF LIFE BETWEEN SCHIZOPHRENIA AND BIPOLAR DISORDER

Our results stated that there is a worse quality of life in both schizophrenia and bipolar disorders. In physical, physiological and environmental domains there is a

decreased quality of life in both diseases and there is a better quality of life in social domain among both disabilities.

Our results are contrary to Klara Latalova who did a study on quality of life in patients with bipolar disorder : a comparison with schizophrenic patients and healthy controls. They finally concluded that QOL is high in bipolar disorder then compared to schizophrenia patients in remission. Here the quality of life in bipolar disorder is better than schizophrenia because the study was done in an urban area, where the population were mostly educated. (Latalova 2011)

Analogous to our study, Homayoun Amini did a study on “Quality of life in Bipolar type-1 disorder as a one-year follow-up” and concluded that their results reported no significant differences between schizophrenia and bipolar disorder on four domains of WHO-QOL-BREF. They finally concluded that persistent depressive symptoms was the reason for impaired QOL. (Homayoun Amini 2012)

Contrary to our study, Samuli I. Saarni did a study on Quality of life of people with schizophrenia, bipolar disorder and other psychotic disorders and concluded that Schizoaffective disorder was associated with the largest losses of QoL and HRQoL, with bipolar I disorder associated with similar or smaller losses than schizophrenia. (Samuli I. Saarni 2010)

Contrary to our study, Oluyomi Esan did a study on “Bipolar I disorder in remission vs. schizophrenia in remission: Is there a difference in burden ?” bipolar disorder patients in remission largely have a comparable level of burden with schizophrenia patients in remission, This finding challenges the common assumption that patients with schizophrenia suffer from a higher level of burden compared to bipolar disorder patients. (Oluyomi Esan 2016)

Contrary to our study, Yen C-F 2008 Quality of life and its association with insight, adverse effects of medication and use of atypical antipsychotics in patients with bipolar disorder and schizophrenia in remission and concluded that The results of the present study indicate that subjects with BD are dissatisfied with their QOL, even when they are in a remitted state. (Yen C-F 2008)

#### FACTORS AFFECTING QUALITY OF LIFE

**SUBSTANCE ABUSE**, Our studies showed that substance abuse had a significant effect on the quality of life in schizophrenia and bipolar disorder ( $p < 0.0001$ ), 30.18% of schizophrenics and 27.35% of bipolar patients were with substance abuse. our study is similar to the study done by Natasha Tracy who reported that, schizophrenia and alcohol are correlated with poorer treatment outcomes. (Natasha Tracy).

Age and gender have a significant impact on the quality of life in our study. The mean age of schizophrenic patients was  $35.33 \pm 11.93$  years, and that of bipolar patients was  $35.33 \pm 6.027$  years. Usually age of the psychiatry patient have inverse relationship with the Quality of life. (Luis Gutiérrez-Rojas, 2008).

Gender, In schizophrenia 44.33% male and 56.66% female were reported whereas in bpad, 39.62% male and 60.37% female were reported. Our study results demonstrated that gender has an impact on quality of life in both disorders. (p value was found to be **<0.001**)

Marital status and family support: There is no impact on the quality of life of the patients suffering from both the disorders.

Clinical variables: Duration of untreated illness, Medical comorbidities had no impact on quality of life in our study, but patient compliance has an impact on quality of life.

#### STATISTICAL COMPARISON BETWEEN SCHIZOPHRENIA AND BIPOLAR DISORDER

Quality of life between schizophrenia and bpad are compared, p-values for respective domains are (physical domain,  $p=0.8092$ ; physiological domain,  $p=0.3114$ ; social domain,  $p=0.8423$ ; and environmental domain,  $p=0.5879$ ); Our results were compared with several types of studies, those studying the comparison of quality of life in schizophrenia and bipolar disorder. Our results are similar to that of the study by the author Homayoun Amini, who showed that there is no significant differences between patients with BD and schizophrenia on four domains of WHOQOL BREF at the baseline and at follow-up. Their p-values at baseline comparison are as follows: (physical:  $p=0.059$ , physiological:  $p=0.354$ , social:  $p=0.912$ , and environmental:  $p=0.700$ ), whereas the follow-up p-values i.e. after 4-month interval are: (physical:  $p=0.746$ , physiological:  $p=0.140$ , social:  $p=0.291$  and environmental:  $p=0.754$ ), (**Homayoun Amini 2012**)

As for the quality of life, the study by Mahmoud Najafi showed that people suffering from schizophrenia and bipolar disorder proved to have a lower quality of life depicting lower levels of physical health, mental health, and community health compared to normal people. The results for variance analysis among schizophrenic, bipolar, and normal groups in quality of life subscales. The p-values are as follows: (physical:  $p=0.001$ , physiological:  $p=0.001$ , social:  $p=0.426$ , and environmental:  $p=0.001$ ) (**Mahmoud Najafi 2014**). Kristen M. Abraham showed that people with bipolar disorders experience a lower quality of life than the general population, including difficulties in areas of work, family, and social functioning. Moreover, they are burdened by medical comorbidities that place them at risk for premature death. Lower levels of depressive symptoms were associated with higher mental HRQoL

( $p < .01$ ). For physical HRQoL, having fewer medical comorbidities ( $p < .0001$ ), being male ( $p < .05$ ), was significantly associated with higher HRQoL. (**Kristen M. Abraham 2014**). Chen-fang yen stated their results as the subjects with BD are dissatisfied with their quality of life, even when they are in a remitted state. (**Cheng-fang yen et al., 2008**). Vivaswan Boorla stated in his article that there was no significant difference among schizophrenia, Schizo-affective and bipolar affective disorder under remission. The results of anova analysis for mean scores of WHO-BREF domains among three diagnostic sub-groups schizophrenia, bipolar disorder and schizo-affective disorder are : (physical:  $p=0.171$ , physiological:  $p=0.001$ , social:  $p=0.022$  and environmental:  $p=0.305$ ), (**Vivaswan Boorla 2015**).

Our results, however, are contrary to those of the study done by Latalova K, which stated the same or higher subjective QoL in bipolar patients in clinical remission in comparison with healthy controls and higher subjective QoL in bipolar patients in clinical remission than in schizophrenic patients in clinical remission. (The p-values for physical health, general is  $<0.001$  and for social activities the p-value is  $<0.05$ ). (**Latalova 2021**)

#### STRENGTHS AND WEAKNESSES

##### Strengths

- The patients who face difficulty in understanding the questions, were simply and clearly explained to them. The strength of the study was the results were reported from one centre which has a wide variety of patients from different socioeconomic status
- Psychiatric diagnostics were based not only on the SCID-I interview but also on case records from hospital and outpatient treatments, which made the diagnostic procedure thorough and reliable.
- This kind of research model gives us the opportunity to compare functional limitations in people with Schizophrenia and BPAD.
- The participation rate was high, which gives us a better opportunity to make generalizations from the results.

##### Weaknesses

- All the variables were assessed cross-sectionally. Hence answers to cause-effect relationship between variables cannot be given.
- The study sample is not representative because the subjects were only recruited from one referral center.
- The QOL instrument WHO QOL-BREF used in current study is a generic instrument that was not designed specifically for schizophrenic patients, using a combination of both generic and specific instrument would have been the better choice.
- We did not include evaluation of neuro-cognitive functions and adverse reactions, which might be confounding factors in QoL and functioning. Patient or caregiver recall about onset of disease, times of admission, and duration of admission in other

psychiatric hospitals may be biased, which could result in information bias.

## CONCLUSION

The purpose of this study is to compare the quality of life between the schizophrenia and bipolar disorder. The major findings of this study includes

- 1) Poor Quality of life is observed in both schizophrenia and bipolar disorder patients in our study
- 2) There is no significant difference in quality of life between the schizophrenia and bipolar disorder because patients with both disorders were experiencing the worse quality of life.
- 3) Parameter age is affecting the quality of life in both conditions
- 4) Substance abuse is affecting the quality of life in both disorders.
- 5) Gender is affecting the quality of life in both disorders.
- 6) Patient compliance is also affecting the quality of life in both disorders.

BPAD is an episodic illness whereas schizophrenia is a chronic illness, but in case of BPAD, if the patient is on proper medication and when he is on proper follow-up, then there will be a recovery from the disease condition.

Many studies reported a better QOL in BPAD and a worse QOL in schizophrenia, the majority of the authors did their study in urban locality and with atleast a minimum education status, but our study was conducted in a government hospital where most of the population are from rural area and a maximum number of them are illiterates. Due to these factors, there is increased relapses especially in bipolar disorder patients.

The impairment in quality of life in both the disorders was due to substance abuse, lack of proper knowledge on the disease condition or lack of knowledge on use of medications, lack of income, improper follow-up visits to the hospital.

This study also sought to explore how various parameters effects the quality of life. The people with schizophrenia and bipolar disorder are mostly satisfied with their family relations (Social domain is good in both the diseases). Duration of untreated illness had no impact on worsening of quality of life, because once the treatment begins, the disease condition gets better.

## MEASURES TO IMPROVE QOL

- Encouraging the patients to attend psycho-education groups/programs may help them to develop their quality of life.

- Counseling the patients and care takers regarding disease and importance of using medication in both disabilities prevents severity of disease.
- Family (especially the spouse) interventions and support can contribute to the stability of the schizophrenic patients, enabling them to function in the mainstream society and improve the quality-of-life
- Therapies targeting the regulation of biological rhythms such as IPSRT (Interpersonal and social rhythm therapy), exercise, psycho-education, light therapy, sleep hygiene, cognitive behavioral therapy will have a direct impact in improving QOL along with symptom recovery in BD.
- Several studies have found that schizophrenia patients who smoke need higher doses of antipsychotic medication, but incase of substance abuse patients higher dose is recommended.

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