

Knowledge and Awareness Level of Bipolar Disorder among Saudi Population

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Abstract Objectives: Bipolar disorder is a mental health condition characterized by alternating episodes of mania and depression. During manic phases, individuals may experience heightened moods, increased energy and reduced need for sleep. This is followed by periods of severe depression. Bipolar disorder is one of the top 10 mental disorders affecting young adults globally, accounting for 7.3% of the worldwide disease burden. Despite its prevalence, the condition is still poorly understood, with many misconceptions surrounding its causes and management. **Objectives:** Our study aimed to assess the knowledge and awareness level of bipolar disorder among Saudi population. **Methodos:** This cross-sectional study was carried out during 2024. Both male and female, aged between 17 and 65 years, who consented to participate. It collects basic demographic data from participants and uses a pre-existing questionnaire distributed via social media. The scoring system involves 11 statements evaluating demographics, knowledge and awareness, with Likert scale scoring. Participants are categorized into low, moderate and high levels based on their knowledge and awareness scores. **Results:** The study assessed the knowledge and awareness of bipolar disorder among 405 participants in Saudi Arabia, revealing significant insights. While an impressive 88.4% reported familiarity with the disorder, 41.5% underestimated its prevalence in society, indicating a potential gap in understanding. Demographic analysis showed that 57.3% of participants were female, with the majority from the Western region (55.3%). Though 72.1% lacked direct experience with mental illness, the primary sources of information were the Internet (69.1%) and social media (63.5%). Notably, 78.3% exhibited limited knowledge of bipolar disorder, underscoring the need for enhanced education despite high awareness levels. **Conclusion:** The findings of this study highlight a significant awareness of bipolar disorder among the Saudi population, yet reveal critical gaps in understanding its complexities and prevalence.

Key Words Bipolar, Disorder, Attudites, Saudi Arabia

INTRODUCTION

Bipolar Disorder (BP) is a mental health condition characterized by intense mood swings. It is a major contributor to cognitive impairment and impacts a significant number of individuals globally [1]. It causes significant fluctuations in mood, energy levels and the capacity to carry out everyday activities [2]. In this disease there is presence of a syndromal, manic episode and bipolar II disorder, defined by the presence of a hypomanic episode and a major depressive episode also patients with bipolar disorder occasionally experience severe episodes [3].

Managing these situations places significant demands on the physician's character and behavior and necessitates possessing the appropriate medical expertise. This task is further complicated by the generally low level of public understanding and awareness about psychiatric and mental health issues [4]. Bipolar disease is considered among the mental disorders that are still poorly understood, Generally speaking, these disorders account for 7.3% of the world's disease burden [5] and it is one of the top 10 mental disorders affecting young adults, according to the World Health Organization (WHO) [6]. Although the frequency of Bipolar

disease is similar to that of other severe mental diseases, Individuals may not receive an accurate diagnosis or begin treatment for their condition for six to ten years after their symptoms first appear [7]. Patients with bipolar disorder were found to exhibit clinically significant depression 32% of the time, manic symptoms 9% of the time, or both 6% of the time [8]. Approximately 30% of Bipolar I disorder (BP-I) patients exhibit severe impairment in job performance. In such circumstances, functional improvement lags significantly behind symptom improvement [9]. A survey of 416 community members was carried out in Riyadh, Saudi Arabia, in 2016. Prior to this, nearly half (49.5%) knew about bipolar disorder, primarily from social media and the internet. Approximately 50% of respondents thought that neurochemical or neurophysiological imbalances were the root cause of bipolar disorder and that psychiatric drugs played a big role in managing it [5]. According to an Egyptian study on bipolar disorder patients, 40.8% sought help from traditional healers before receiving mental health care. Similar research in Saudi Arabia and Sudan found that bipolar disorder patients often consult traditional healers, who attribute mental illnesses to spiritual and supernatural causes such as witchcraft, jinn and the evil eye [10]. This reliance on traditional healers likely contributes to delays in seeking psychiatric care, potentially worsening the patient's prognosis [11]. The study result can be used to inform targeted educational programs and interventions aimed at improving knowledge regarding mental health. Additionally, there aren't many papers discussing how knowledgeable Saudi Arabians are about bipolar disorder.

Objectives

This study aims to assess knowledge and awareness level of bipolar disorder among Saudi population.

METHODS

Study Design and Setting: This research was a cross-sectional survey that utilized a structured questionnaire. The study's participants were Saudi adults aged 18 and older, who were recruited in August 2024 from those who received the questionnaire.

Sample Size

The sample size was determined using Raosoft's sample size calculator. Using an indicator percentage of 0.50, a margin error of 55% and a Confidence Interval (CI) of 95%, the determined sample size was 384. It was calculated in order to guarantee that the least number of respondents were representatives of the entire population.

Inclusion and Exclusion Criteria

Both male and female, aged between 17 and 65 years, who consented to participate. Exclusions were made for individuals residing outside of Saudi Arabia, those who opted out of the study and participants who submitted incomplete questionnaires.

Method for Data Collection, Instrument and Score System

Basic demographic information collected from each participant, including gender, age, smoking status, marital

status, education level and occupation. Data collection conducted using an online questionnaire that was previously used in a published study in Saudi Arabia titled "Public Awareness, Beliefs and Attitudes toward Bipolar Disorder in Saudi Arabia [11]". The questionnaire distributed online through social media platforms and the public in Saudi Arabia invited to complete it using Google Forms. The questionnaire is self-reported, meaning that participants respond to the questions based on their own experiences and perceptions.

Scoring System

In all, 11 statements served to assess the participants' awareness and degree of knowledge and demographics. 6 statements for demographics, 5 for knowledge. One to two points are given for correct answers and zero points are given for incorrect answers, for scoring, we utilized Likert scales (Dichotomous, Three-Point and Quality Scales) The maximum score was 22 and divided as follows: The original Bloom's cut-off points, 80.0-100.0, 60.0-79 and 59.0%, The participants divided into three groups based on their scores.

Knowledge score varied from 0 to 28 points and was classified into three levels as follows: those with a score of 15 or below (≤ 5) were classified as having a low level of knowledge, those with scores between 16 and 21 as having a moderate level of knowledge and those with scores 22 or above (≥ 8) as a high level of knowledge.

Pilot Test

A total of 15 individuals were given the questionnaire and requested to answer it. This was done to evaluate the study's viability and the ease of use of the questionnaire. The pilot study's results were not included in the study's final evaluation.

Analyzes and Entry Method

All data was coded in the database Excel sheet using a unique identification number. Only the research team have access to the database for analysis purposes. We entered the data we collected from the questionnaire into the Statistical Package for Social Sciences (SPSS, version 25.0). We measured the p-value and the 95% confidence intervals. The p-value < 0.05 taken as the fixed point for statistical significance. The chi-square χ^2 tests were used for categorical variables.

RESULTS

Table 1 displays various demographic parameters of the participants with a total number of (405). Mean age of participants is 25.9 \pm 9.1 years, leading to a sample with a mean age of 25.2% (19 years or younger) and 31.1% (20–23 years). A feature of great interest was gender as roughly 57.3% of the sample are females with 42.7% being male. The Western region showed the highest emergence of geographically represented area in relation to the number of participants (55.3%) followed by Eastern (23.2%), Southern (13.2%) and the least represented was the Northern (2.5%). Among approximately 460 people, almost 77.5% are married and 53.6% have bachelor's level of education. What was interesting to me is that so many people (72.1%) had not had a direct connection to mental illness but 12.6% of us identified mentally ill ourselves.

Table 1: Sociodemographic Characteristics of Participants (n = 405)

Parameter	No.	Percent	
Age (Mean:25.9, STD:9.1)	19 or less	102	25.2
	20 to 23	126	31.1
	24 to 30	86	21.2
	31 or more	91	22.5
Gender	Female	232	57.3
	Male	173	42.7
Residential region	Northern region	10	2.5
	Southern region	21	5.2
	Central region	122	30.1
	Eastern region	28	6.9
	Western region	224	55.3
Marital status	Single	314	77.5
	Married	86	21.2
	Divorced	4	1.0
	Widowed	1	.2
	Educational status	Primary education	4
Middle school		9	2.2
Secondary education		156	38.5
Bachelor's degree		217	53.6
Graduate		18	4.4
What is applicable from the followings? *	Uneducated	1	0.2
	Have a mental illness	51	12.6
	Have a mentally ill family member	74	18.3
	Nothing from the above	292	72.1

*Results may overlap

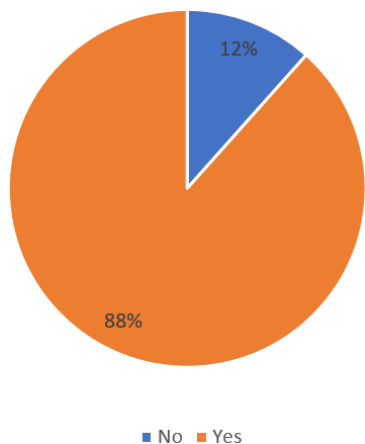


Figure 1: Illustrates Hearing about Bipolar Disorder among Participants

As shown in Figure 1, for a population of a total 405 respondents, awareness about bipolar disorder is very high as 88.6% (358 people) informed us that they have some idea about this mental health condition. On the other hand, only 11.6% (47 respondents) say they haven't heard of bipolar disorder.

As shown in Table 2, the data presented relates to the knowledge level and awareness regarding the disease bipolar disorder in the population in Saudi Arabia, particularly among the sample group of 405 respondents. Moreover, an extreme 88.4 per cent of respondents stated they'd heard of bipolar disorder, suggesting a significant awareness of the disorder. Nevertheless, a considerable number of these (41.5%) do not think that the disorder is prevalent within Saudi society, which may indicate a gap between understanding of the disorder's prevalence and awareness of its presence in the society.

Table 2: Parameters Related to Knowledge and Awareness Level of Bipolar Disorder among Saudi Population (n = 405)

Parameter	No.	Percent		
Have you ever heard of bipolar disorder?	No	47	11.6	
	Yes	358	88.4	
Do you think that bipolar disorder is widespread in Saudi society?	No	168	41.5	
	Yes	237	58.5	
What is your source of information about this disease? *	Relatives-Friends	148	36.5	
	TV	98	24.2	
	Internet	280	69.1	
	Social media	257	63.5	
	Hospital-clinics	103	25.4	
	Books	94	23.2	
	Leaflets and Posters	46	11.4	
	Newspaper	18	4.4	
	Magazines	22	5.4	
In your opinion, which of the following increases the likelihood of bipolar disorder? *	Disturbances in brain chemistry/functions	239	59.0	
	Certain medical conditions such as: cancer, diabetes, heart disease and hypothyroidism	61	15.1	
	Hereditary or genetic	210	51.6	
	Unhealthy lifestyle	148	36.5	
	Problems with other individuals in families or the workplace.	147	36.3	
	weak personality	86	21.2	
	Inflammatory infection	13	3.2	
	Substance abuse	138	34.1	
	Drugs	64	15.8	
	Weakness of faith	104	25.7	
	The eye-envy	58	14.3	
	Magic	45	11.1	
	Jinn	33	8.1	
	bad parenting	50	12.3	
	A painful event in life, such as: the death of a close person, physical injury, disaster, etc.	232	57.3	
	In your opinion, which of the following is an effective treatment for bipolar disorder? *	Healthy lifestyle system. Such as: sports and a healthy diet	274	67.7
		Psychiatric medications. Such as: antidepressants, mood stabilizers, antipsychotics, or tranquilizers	275	67.9
		Cupping	23	5.7
		Talking to family or friends	171	42.2
Treating the head with a bandage or (with a labkha/sabkha/sabkha) by a folk healer		21	5.2	
Smoking		11	2.7	
Drinking alcoholic beverages		1	0.2	
Taking amphetamine or smoking cannabis		4	0.9	
Electroconvulsive Therapy (ECT) under the supervision of a psychiatrist		58	14.3	
Ironing		9	2.2	
Non-pharmacological psychotherapy sessions		183	45.2	
Roquia		124	30.6	
increasing prayers		194	47.9	
Participate in entertainment activities for recreation		158	39.0	

*Results may overlap

Table 3: Shows Knowledge and Awareness Level of Bipolar Disorder among Saudi Population Score Results

Parameters	Frequency	Percent
High level of knowledge	25	6.2
Moderate knowledge level	63	15.6
Low knowledge level	317	78.3
Total	405	100.0

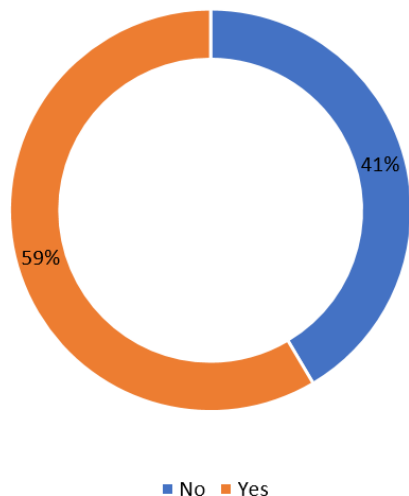


Figure 2: Illustrates Whether Bipolar Disorder is Widespread among Saudi Society

The Internet (69.1%) and social media (63.5%) were found to be the main source of data, indicating modern digital platforms, such as the Internet and social media, are key information disseminating mediums in the sphere of health. 39.0% of participants indicated disturbances in brain chemistry as a major risk factor; 57.3% indicated painful life events. On treatment, 67.7% endorsed healthy lifestyle and 67.9% endorsed psychiatric medications.

As shown in Figure 2, Based on a sample of 405 respondents, the data leads us to know public perception about the prevalence of bipolar disorder among Saudis society. Most notably, there is an acute awareness of mental health issues among the population; a large majority - 237 individuals, or 58.5 percent - believes that bipolar disorder is widespread. Inversely, 41.5% of respondents, 168 people, who didn't describe bipolar disorder as widespread may hint either they didn't comprehend the illness or that mental wellness diagnoses are stigmatized.

Table 3 presents the data that disclose a very important point of the knowledge and awareness of bipolar disorder among the Saudi people. Of particular note, an astounding 78.3 percent of respondents show limited knowledge about this complicated mental health condition. However, only 6.2 percent of the population has a high level of understanding, while only 15.6 percent have moderate knowledge.

Table 4 shows that knowledge and awareness level of bipolar disorder has statistically significant relation to gender (p value = 0.036). It also shows statistically insignificant relation to age, residential region, marital status, educational status.

Table 4: Relation between Knowledge and Awareness Level of Bipolar Disorder and Sociodemographic Characteristics

Parameters		Knowledge level		Total (N = 405)	p value*
		High or moderate knowledge	Low knowledge level		
Gender	Female	59	173	232	0.036
		67.0%	54.6%	57.3%	
	Male	29	144	173	
		33.0%	45.4%	42.7%	
Age	19 or less	26	76	102	0.337
		29.5%	24.0%	25.2%	
	20 to 23	27	99	126	
		30.7%	31.2%	31.1%	
	24 to 30	21	65	86	
	23.9%	20.5%	21.2%		
	31 or more	14	77	91	
		15.9%	24.3%	22.5%	
Residential region	Northern region	5	5	10	0.069
		5.7%	1.6%	2.5%	
	Southern region	4	17	21	
		4.5%	5.4%	5.2%	
	Central region	25	97	122	
		28.4%	30.6%	30.1%	
	Eastern region	10	18	28	
		11.4%	5.7%	6.9%	
	Western region	44	180	224	
		50.0%	56.8%	55.3%	
Marital status	Single	74	240	314	0.319
		84.1%	75.7%	77.5%	
	Married	14	72	86	
		15.9%	22.7%	21.2%	
	Divorced	0	4	4	
	0.0%	1.3%	1.0%		
	Widowed	0	1	1	
		0.0%	0.3%	0.2%	
Educational status	Primary education	0	4	4	0.484
		0.0%	1.3%	1.0%	
	Middle school	4	5	9	
		4.5%	1.6%	2.2%	
	Secondary education	35	121	156	
		39.8%	38.2%	38.5%	
	Bachelor's degree	46	171	217	
	52.3%	53.9%	53.6%		
	Graduate	3	15	18	
		3.4%	4.7%	4.4%	
	Uneducated	0	1	1	
		0.0%	0.3%	0.2%	

*p value was considered significant if ≤ 0.05

DISCUSSION

With such important roles that bipolar disorder plays in acknowledge and awareness level of the general Saudi public about this condition is considered important. From a leading cause of disability globally, bipolar disorder is largely misunderstood and complicated, often poorly understood by the public. This study's findings reveal a paradoxical situation: While a high percentage of respondents reported awareness of bipolar disorder, there was a considerable hole in what they understand about the prevalence and nuances of bipolar disorder. Here we discuss those findings in comparison to previous studies, points of apparent similar and different principles and limitations of the current study.

Our high reported awareness of 88.6% of participants rating familiarity with bipolar disorder is consistent with previous regions where awareness levels were similarly elevated. One example of this is a study based in France which showed that media representation greatly affects public understanding of the existence of mental health

ailments including bipolar disorder and keep in mind how the greater public tends to situate it more favorably than other forms of mental illness, such as schizophrenia [12]. We found, however, that while this awareness was present, only 6.2% of respondents showed a high level of comprehension about the disorder. Similarly, findings from research conducted in Saudi Arabia found that awareness and understanding of mental health issues differ and while awareness of term 'bipolar disorder' was high, lack of in depth understanding of its symptoms and treatment options was widespread [13].

Interestingly, in our study we found that 57.3% of participants associated the onset of bipolar disorder with painful life events and only 39.0% related disturbances in brain chemistry to the cause. This perception reflects a broader trend that is found in mental health research in which biological explanations are often neglected in favour of psychosocial ones. Such a study highlighted the need for understanding the genetic and environmental interplay in the development of bipolar disorder in order to effectively educate people on the disorder both factually and psychosocially [14]. Our reliance on psychosocial explanations in our findings might indicate a need for focused educational approaches targeting the biological imperatives of bipolar disorder among the Saudi people, in an attempt to enhance a more balanced understanding of bipolar disorder in the Saudi population.

There was also significant correlation between knowledge and awareness and gender (p value = 0.036), where the females were more aware (p value = 0.036). This finding is consistent with earlier research that shows that women have higher levels of mental health literacy [15]. Gender disparities of this nature may be the product of social norms surrounding mental health conversations, which can differ quite drastically from culture to culture. For example, research showed women are more inclined to find out about or discuss mental health, which ultimately brings about greater knowledge and assumption with regards to problems like bipolar disorder [16]. This shows the importance of gender consideration in future educational campaigns on improving mental health literacy.

Despite the already known awareness of bipolar disorder, our results indicate that 78.3% of the respondents had a little knowledge about the condition. They are particularly concerning, however, because misinformation and stigma about mental health problems can have far reaching consequences. Previous studies have also documented the harmful effects of stigma on people with bipolar disorder, who too often become socially isolated and reluctant to get treatment [17]. In addition, our findings underscore the urgent need for far reaching educational programs on bipolar disorder that not only raise awareness but also educate people on the nature, symptoms and treatment options of such a disorder.

Our study revealed that 69.1% of participants relied on the Internet as a major source of information on bipolar disorder. Consistent with research in other studies investigating the impact of social media and online resources on public perceptions of mental health [18], this trend remains the same. But quality of information can vary quite a

lot online, with potential for misinformation. The study highlighted that the online information on mental health is unreliable and needs to be verified from reliable sources, as unverified online content can not only harm the treatment of mental illness, but also perpetuate the stigma and misunderstanding involved associated with it [19]. Thus, in order to maximize the use of digital platforms, mental health organizations should more or less commit to making accurate and validated information easily approachable by the public?

Our study offers some important information regarding knowledge and awareness of bipolar disorder to the Saudi population, but there are clearly limitations in our study. Being cross sectional limits one to be able to establish causality and self-reported data may have potential social desirability or recall biases. The sample was overall young and educated, which may not represent the broader Saudi population very well. The generalizability of the findings ought to be maximized by future research that brings in a more diverse demographic. Additionally, longitudinal studies would have the potential to further illuminate the way knowledge and awareness develop over time in response to targeted educational interventions.

CONCLUSION

They found that the Saudi population appears to be aware of bipolar disorder: one of those focus groups that mentioned it responded doubtfully, indicating that they might have heard of it but knew very little about it. Results highlight the requirement of targeted education activities aimed at illuminating not only frequent occurrence of diagnosable bipolar disorder, but also increased depth of understanding about bipolar disorder to ameliorate the mental health literacy and ameliorate the stigma of mental disorders in the Saudi community. Where these gaps are addressed, we can, as an informed people, support people affected by bipolar disorder and influence support for mental health in our community.

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Conflicts of Interest

The authors declare no conflict of interest.

Informed Consent

Written informed consent was acquired from each individual study participant.

Data and Materials Availability

All data associated with this study are present in the paper.

Ethical Statement

After fully explaining the study and emphasizing that participation is optional, each participant gave their

informed consent. The information gathered was safely stored and utilized exclusively for study.

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