Quality of Life and Depression of Individual with Substance Use Disorder

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Abstract: *Background: Substance Use Disorder (SUD) is a widespread public health concern with far - reaching consequences for individuals, families, and communities. While extensive research has been conducted to understand the physiological and psychological aspects of addiction, there is a critical need to investigate its impact on the broader well - being and mental health of affected individuals. This study aimed to assess the quality of life and level of depression of individuals with substance use disorder. Materials and Methods: The study used a non - experimental descriptive research design and convenient sampling to recruit 55 individual with substance use disorder admitted in De - addiction center at Bangalore, Karnataka. Data was collected by using World Health Organization Quality of Life Brief Version Questionnaire (WHOQOL - BREF) and Patient Health Questionnaire (PHQ - 9). Results: The study revealed that majority of substance users were male, had primary level education and married. The average age of participants was found to be 38 yrs. The patients' mean PHQ - 9 score was 9.43±4.4 and mean WHOQOL - BREF score was 78.94±12.55, with the highest mean score of 24.01 in the environmental domain, followed by 21.6 in physical, 18.16 in psychological, and 9.27 in social domain. Majority of participants were found to have mild (40%) to moderate (36.4%) level of depression. Education level of participant was found to be significantly associated with Physical domain of WHOQOL - BREF (0.006). Conclusion: This study provides valuable insights into the quality of life and levels of depression among individuals with Substance Use Disorder (SUD) and underscores the importance of early intervention and prevention strategies in reducing the risk of substance misuse and its detrimental effects on quality of life and mental health.*

Keywords: Substance use disorder, Quality of Life, Depression, Mental health

1. Introduction

Substance use disorder (SUD) produces unstable life patterns, as it impacts many areas of an individual's global functioning across a broad range of life domains [1, 2]. SUDs adversely affect the quality of life of patients, including their working life, interpersonal relationships, social activities, and physical and mental states [3, 4]. Substance use disorder (SUD), affects a person's brain and behaviour and leads to an inability to control the use of a legal or illegal drug or medicine. Substances such as alcohol, marijuana, and nicotine also are considered drugs. [5]. According to the report, around **284 million people aged 15 - 64 used drugs worldwide in 2020**, a 26% increase over the previous decade. Young people use more drugs, with use levels today in many countries higher than in the previous generation. [6]. Excessive use of these substances can be stressful to the family as well as to the individual. Substance use disorder (SUD), affects a person's brain and behaviour and leads to an inability to control the use of a legal or illegal drug or medicine. Substances such as alcohol, marijuana, and nicotine also are considered drugs. [5]. According to the report, around **284 million people aged 15 - 64 used drugs worldwide in 2020**, a 26% increase over the previous decade. Young people use more drugs, with use levels today in many countries higher than in the previous generation. [6]. Excessive use of these substances can be stressful to the family as well as to the individual.

Depression affects about 280 million people worldwide, including about 5 percent of all adults, according to data from the World Health Organization and a report from the World Psychiatric Association Commission, an international research group. The commission describes depression as "one of the leading causes of avoidable suffering and premature mortality in the world" and labels it a neglected global health crisis. [7]. **Globally** 280 million people of all ages, as estimated **3.8%** of the population suffer from depression, as per **WHO** [8]. In the **United States**, an estimated **21 million adults**, or about 8 percent of those 18 and older, are living with depression, according to the National Institute of Mental Health. In addition, the Centres for Disease Control (CDC) and Prevention also note that roughly 11 percent of all physician office and emergency department visits are related to depression. [7]A study conducted by Mohamed I Ikram et. al shows that 93% of the substance user expressed different levels of depression, either mild 12%, moderate 9%, or severe 72%. [9]

2. Materials and Methods

A non –experimental descriptive research design was carried out to assess Quality of life and depression among individuals with Substance use disorder admitted to De - addiction center in Bangalore, Karnataka. A total of 55 participants were selected through convenient sampling technique.

3. Data Collection

Permission to conduct study was obtained from institution authority and total of 55 respondents who met inclusion criteria were selected for the study using convenient sampling technique. The Inclusion criteria were (I) individuals diagnosed with Substance use disorder as per ICD (II) individual who are 18 years and above and willing to participate. Those with severe physical impairment were excluded. The purpose and nature of the study was explained

and informed consent was obtained from each participant. During the data collection, privacy was provided to each participant assuring confidentiality. Data from participants were collected using socio - demographic profile (such as age, gender, education, marital status), and standard tools such as Patient Health Questionnaire (PHQ - 9) for assessment of depression and WHOQOL - BREF Questionnaire for Quality of life.

1) **Patient Health Questionnaire (PHQ - 9):** PHQ - 9 is a brief psychological screening instrument designed to measure symptoms of depression in primary care settings. It contains 9 questions that help identify patients with clinically meaningful symptoms of depression. Patient responses are scored 0 - 3 with 0 representing "not at all" and 3 indicating "nearly every day; " thus, the PHQ - 9 contains a total score range of 0 - 27. PHQ - 9 questions are straightforward and pertain to depressive symptoms experienced over the past 2 weeks that include anhedonia, dysphoria, sleep disturbances, fatigue, and changes in eating, low self - esteem, concentration difficulties, hypo - or - hyper - active behaviours, and thoughts of suicide or homicide. Scoring interpretation indicates 1 - 4 as minimal depression, 5 - 9 as mild depression, 10 - 14 as moderate depression, 15 - 19 as moderately severe depression, and 20 - 27 as severe depression.

2) **WHOQOL BREF Questionnaire:** The WHOQOL - BREF is a self - administered questionnaire comprising 26 questions on the individual's perception of their health and well - being over the previous two weeks. The Scale covers four domains i. e. physical domain. Psychological domain, social domain and environmental domain. Response to questions are on a 1 - 5 Likert scale where 1 represents "disagree" or "not at all" and 5 represents "completely agree" or "extremely". Score ≤ 45 indicate low QOL, score 46 to 65 indicate moderate QOL and score > 65 indicate relatively high QoL (Bani - Issa, 2011).

Statistical analysis: Data was analysed by means of descriptive and inferential statistics using statistical IBM SPSS statistical software (SPSS for Windows, version 20.0). Numerical data were presented as mean with standard deviation. Categorical variables were summarized by absolute numbers with percentages. Chi - square test and

Mann - Whitney U test was done to determine association between demographic characteristics and the research variables. All the statistical tests are done at 5% significance level.

4. Results

Findings of the study revealed that the average age of participants was 38 yrs. Majority of participants were male 49 (52.7), had primary level education 21 (38.2), married 42 (76.4) and were drinking alcohol 36 (65) as shown in Table 1. The participants' mean PHQ - 9 score was 9.43±4.4 and mean WHOQOL - BREF score was 51.16±16.5, with the lowest mean score of 50.25±10.60 in physical domain followed by 50.68±12.55 in psychological, 50.85±17.80 in environmental, and 52.87±25.05 in the social domain as shown in Table 2. Majority of participants were found to have mild (40%) to moderate (36.4%) level of depression as shown in Figure 2. Education level of participant was found to be significantly associated with Physical domain of WHOQOL - BREF (0.006) as shown in Table 3.

Table 1: Demographic characteristics of study participants, n=55

Variables	Categories	M (SD) /n (%)
Age (yrs)		38 (7.40)
Gender	Male	49 (52.7)
	Female	06 (47.3)
Education	Primary	21 (38.2)
	Secondary	17 (30.9)
	Tertiary	17 (30.9)
Marital status	Married	42 (76.4)
	Single	13 (23.6)
Type of Substance used	Alcohol	36 (65)
	Other substance	19 (35)

Table 2: Domain wise mean and Standard Deviation of WHOQOL – BREF, n=55

Sl. No	Domain	Mean	SD
1	Physical Health	50.25	10.6
2	Psychological	50.68	12.55
3	Social relationship	52.87	25.05
4	Environment	50.85	17.8

Table 3: Association of demographic characteristics with PHQ - 9 and WHOQOL - BREF

Variables	PHQ - 9	WHOQOL - BREF			
		Domain 1	Domain 2	Domain 3	Domain 4
Gender	0.492	0.453	0.057	0.251 (Mann - whitney U Test)	0.978
Marital status	0.079	0.693	0.541	0.475	0.195
Education status	0.117	0.006 (S) *	0.063	0.625	0.313

P<0.05, *S - Significant

Graphs/pie charts

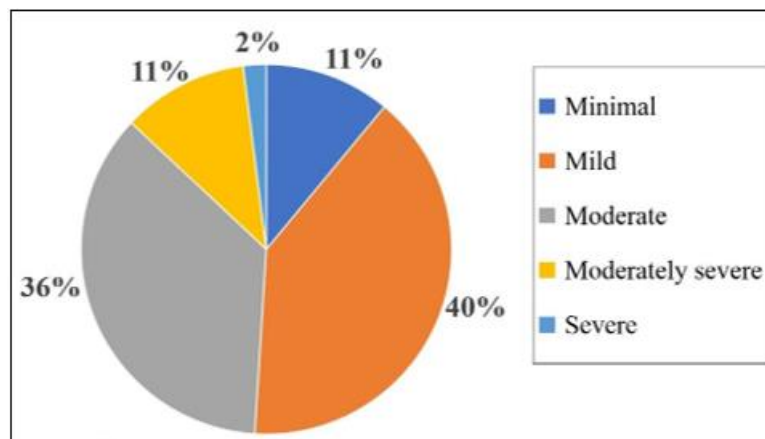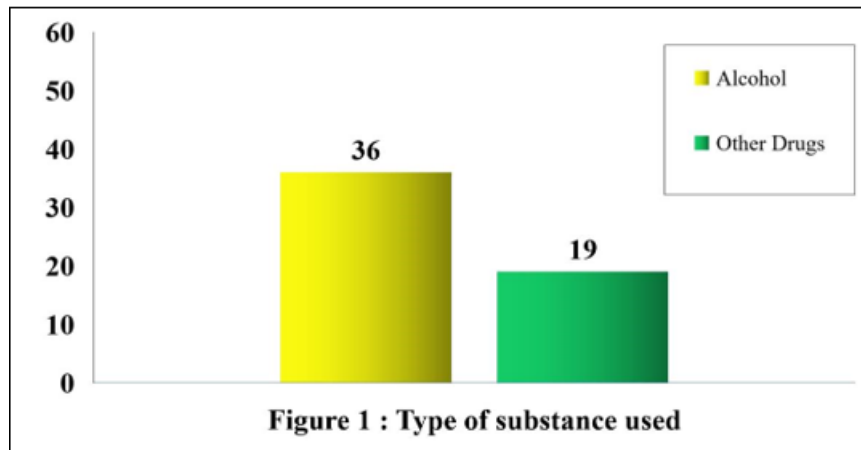Figure 1 : Type of substance used

Figure 2: Level of Depression

5. Discussion

The present study investigated the quality of life and level of depression among individuals with substance use disorder. The results revealed significant findings pertaining to quality of life, depression and its association with selected demographic variables. The projected mean age of study participants is similar with other studies that have been conducted on adult populations around different parts of India and have indicated mean age of 39.08 ±7.66 years in a study by Chikkerahally GD in Chitradurga, Karnataka, 38.93 ± 8.57 years in a study by Arya S et al in Rohtak, Haryana. [10]

Current study also revealed that the mean WHOQOL - BREF score was 51.16±16.5, with the lowest mean score of 50.25±10.60 in physical domain followed by 50.68±12.55 in psychological, 50.85±17.80 in environmental, and 52.87±25.05 in the social domain. Similarly study by Arya S et al indicate lowest mean score in psychological (40.19 ± 21.76) and physical (42.12 ± 21.29) domain followed by social (43.97 ± 19.05) and environmental (50.47 ± 18.39) domain. [11] The current study finding is also supported by study conducted by Chikkerahally GD where the mean score was lowest on physical domain (33.95, SD 11.39) followed by psychological domain (37.84, SD 12.62) which is comparable to social relationships domain (39.92, SD 16.96) and highest on environment domain (50.34, SD 11.94). Poorer scores on physical domains correspond to impaired mobility and ability to work. Environmental domain scores are consistently higher across the studies indicating better satisfaction with living setup and access to health.

Majority of participants were found to have mild (40%) to moderate (36.4%) level of depression. Similar to the study findings, many other studies indicates mood disorders to be the most common comorbid psychiatric condition, while other studies reporting anti - social personality or anxiety to be the most common disorders**. [12, 13, 14]** Study by Maksimovic JM et al also mentions that some level of depression present in all participants, but severe forms were more frequent in substance users (P =.010). [15] R. Kathryn McHugh et al in her study also revealed the the mean BDI score was 13.8 (SD = 10.0), reflecting a mild level of depressive symptoms, on average. [16]

Similar to the findings of current study, study by V. Manning et al indicates that socio - demographic characteristics had little influence on QoL except education level of participant which was found to be significantly associated with Physical domain of WHOQOL - BREF (0.006) in present study [17]. In contrast, study by Chikkerahally GD found total family income being positively correlated to better scores on environment domain of WHOQOL - BREF.

6. Limitations

The present study was confined to small number of participants within the limited settings which limits the generalization of findings.

7. Conclusion

This study provides valuable insights into the quality of life and levels of depression among individuals with Substance Use Disorder (SUD) and underscores the importance of early screening, intervention and prevention strategies in reducing the risk of substance misuse and its detrimental effects on quality of life and mental health. Tailored interventions that encompass medical, psychological, and social support are essential in facilitating sustainable recovery and improving overall well - being.

Conflict of interest: Nil

Source of funding: Self

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