

# Quality of Life among Substance Use Disorder Patients in Khyber Pakhtunkhwa, Pakistan

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## ABSTRACT

**Objectives:** This study aimed to evaluate the quality of life (QoL) of substance use disorder (SUD) patients in Khyber Pakhtunkhwa, Pakistan.

**Design:** A cross-sectional study

**Setting and Participants:** 500 substance use disorder patients were selected from the seven drugs rehabilitation centers of Khyber Pakhtunkhwa, Pakistan.

**Methods:** This study was carried in seven drugs rehabilitation centers of Khyber Pakhtunkhwa, Pakistan between August 08, 2019, and December 2020. A cross-sectional study design was used to assess the QoL among 500 substance use disorder adult patients who were taking initial rehabilitation treatment via a convenient sampling technique. The WHOQOL-BREF Field Trial Version was used to measure the QoL.

**Results:** This study found that more than 75% (very poor: 27.8%, poor: 49.8%) substance use disorder patients had a poor perception of the QoL, 81% (very dissatisfied: 33.8%, dissatisfied: 47.2%) patients were dissatisfied with the overall perception of the health. The four domains of QoL of SUDs patients were also disturbed.

**Conclusion:** The current finding of this study illustrated that people with SUDs need more attention for their QoL and well-being.

**Keywords:** Substance Use Disorder, quality of life, perception of the health, well-being

## INTRODUCTION

Substance use disorder has been defined as a "pattern of maladaptive behaviors of substance use leading to clinically severe impairment or distress," which can influence physical or psychological functioning, personal safety, social relationships, duties, and responsibilities, job, and other domains <sup>(1)</sup>. In 2019, almost 35 million people suffered from drug use disorder worldwide. A total of 585,000 died as a direct result of drug use problems, the majority of which included opioids in the year 2017. These risks to one's health and well-being, as well as security, safety, and long-term development, necessitate immediate action <sup>(2)</sup>.

Drug abuse is a prevalent problem among Pakistan's youth, who account for 28% of the whole population of Pakistan <sup>(3)</sup>. According to the recent report by UNODC and Pakistan Bureau of Statistics in 2013, an estimated 6.45 million of the population in Pakistan use drugs on an annual basis with cannabis being the most used drug (United Nations Office on Drugs and Crime [UNODC], 2013). <sup>(2)</sup> The ramifications of substance abuse are far-reaching. They have an impact not only on the user but also on their family and society.<sup>(3)</sup> The labor market loses qualified workers, which has an impact on the economy.<sup>(4)</sup> Drug is known to change the structure and functions of a brain, resulting in damage and self-destructive behaviors.

Quality of life (QoL) is a wide notion that encompasses a person's level of independence, psychological or physical wellbeing, and social and family relations.<sup>(5)</sup> Individuals with SUD typically report significantly poorer QoL than the general population and as low as those with other serious mental illnesses<sup>(6)</sup> SUDs often have been associated with mood swings, depression, anxiety, low self-esteem, paranoia, violence, hallucinations, confusion, and a desire to engage in risky behavior <sup>(5)</sup>. A study conducted at a tertiary care hospital in Pakistan found the prevalence of psychiatric co-morbidity in individuals with substance use disorder <sup>(7)</sup>. Due to the various physical and psychological negative effects of drug usage, it is widely believed that drug usage contributes to an individual's QoL.

Literature reveals that substance use is associated with declines in a wide range of QoL domains, including physical, social, psychological, labor, academic and financial functioning <sup>(8)</sup>.

In some cases, damage may occur in specific domains. In the case of alcohol, negative consequences of chronic use include debilitating diseases, as well as losses in the individual's social-economic status <sup>(9)</sup>. As for other substances, the damage may be more diffuse. To give an example, the constant use of crack/cocaine seems to impact several domains of QoL <sup>(10)</sup>. In short, there are differences in the harm caused using each substance, and generalizations to all types of users are impossible <sup>(8)</sup>.

Illicit drug usage is expanding in most countries throughout the world, including Pakistan, particularly in Khyber Pakhtunkhwa, where the number of users is rapidly increasing. Khyber Pakhtunkhwa is suffering from widespread drug addiction, which is causing chaos in the youth. According to UNODC and Pakistani Narcotics Control Division data from 2013, 10.7% of the population of KP abuses harder narcotics, which is nearly double the national average. <sup>(11)</sup> Good QoL is compulsory to ensure the sustainable recovery and treatment of SUDs patients <sup>(11)</sup>. With this information in mind for SUDs patients in Peshawar Pakistan, the objective of this study was to explore the QoL of substance use disorders patients in Khyber Pakhtunkhwa, Pakistan.

## METHODS

The present study included 500 male and female adults from drugs rehabilitation centers and hospitals in Khyber Pakhtunkhwa. Data were collected via convenient sample techniques. Participant age ranged from 19 to 70 with age mean of 36.47 + 10.59. The sample size was calculated through G Power software. Those participants were selected for current study that used the substance from at least 1 year. Participants with relapse and living with family were included in study.

The WHOQOL-BREF Field Trial Version (WHO,1996) developed by the World Health Organization, (WHO) was applied to investigate the QoL. The questionnaire consists of twenty-six questions that have four sub-scales that are Physical, Psychological, Social and Environmental. This study addresses and investigates the four domains of QoL, which are physical, psychological, social relationships and environment. SPSS version 25 was used to evaluate the data.

**Procedure:** The current research was approved by the Rehman College of Dentistry Hayatabad Peshawar, Pakistan. The purpose of current study was explained to each participant. All participants completed consent form before the administration of the QoL. Permission was also taken from all substance rehabilitation centers and hospitals authorities. The participants were asked to fill out a questionnaire. The researcher grants participants the full right to withdraw from study at any time.

**RESULTS**

**Demographic information:** A total of 500 participants diagnosed with substance use disorder were included. Table 1 shows the demographic and drug use variables i.e. Cannabis, Heroin, and other drugs. The mean age of substance use initiation was 36.47 (10.59), who abused substance for approximately 8-24 years and availed 20- 90 days in drug rehabilitation centers.

Table 1 demographics of patients with substance use disorder

Variables		f (%)
Age	Young	254(50.8)
	Middle	210(42.0)
	Old	36(7.2)
Gender	Male	440 (88.0)
	Female	60 (12.0)
Marital Status	Single	230 (46.0)
	Separated	23 (4.6)
	Married	205 (41)
	Divorced	15 (3.0)
	Widow	27 (5.4)
Education	None	280(56)
	Primary	95 (19.0)
	Secondary	52(10.4)
	BA	61 (12.2)
	Master	12 (2.4)
Drug	Cannabis	198(39.6)
	Heroin	209(41.8)
	Others	93 (18.6)

Note. F= Frequency, %=Percentage

**Perception of quality of life (QoL):** This study found that overall, 77.6% (very poor: 27.8% and poor 49.8%) patients have poor perception of QoL, 19.2% of patients reported neither poor nor good perception of QoL, and only 3.2% have good (no patients reported very good) perception of QoL. Furthermore, descriptive statistic reflected that almost all users of Cannabis, heroine or other drugs reported poor perception of quality of life i.e., 47.3%, 51% and 60% respectively, as shown in Table 2.

**Perception of health:** The current findings revealed that 81% (very dissatisfied: 33.8%, dissatisfied: 47.2%) patients were dissatisfied with overall perception of the health, 15.8% patients reported neither dissatisfied nor satisfied with their overall perception of the health, and only 16% were satisfied (very satisfied: 8%, satisfied: 8%) with their overall perception of the health, Furthermore, descriptive statistic reflected that almost all users of Cannabis, heroine or other drugs reported dissatisfaction with overall perception of health i.e., 49.4%, 44.2% and 52% respectively, as shown in Table 3

**Four domains of quality of life:** This study found that the environmental relationship domain had the highest mean score of QoL (mean: 29.81, SD: 3.1) and the social relationship domain demonstrated the lowest score (mean: 10.19, SD: 1.72), more details see Table 4.

**Correlation between domain of quality of life:** The table 5 shows inter-item correlation among four domains of QoL among patients with substance use disorders. Each inter item was correlated with each other.

**Gender difference in drug of choice:** Table 6 show frequency and percentage of drug of choice use by gender. Descriptive statistic reflected that overall, participants used Cannabis and Heroin drug. Most of the female preferred taking tablets (15.1%). Furthermore, in male Cannabis was more preferred drug.

**Comparison of drug of choice and domain of QoL:** Result in table 7 found significant difference between drug of choice and categories of quality of life. This reflect that whatever drug is opted by patients has significant effect on their perception of quality of life.

Table 2 substance use disorder patients' perception of quality of life with reference to drug of choice

Question Responses		Overall f (%)	Cannabis f (%)	Heroine f (%)	Other f (%)
How would you rate your quality of life?	Very poor	139 (27.8)	69 (30.8)	64 (25.5)	6 (24)
	Poor	249 (49.8)	106 (47.3)	128 (51)	15 (60)
	Neither	96 (19.2)	43 (19.2)	51(20.3)	2 (8)
	Good	16 (3.2)	6 (2.7)	8(3.2)	2 (8)
	Very Good	0 (0)	0(0)	0(0)	0

Note: f= Frequency, %=percentage

Table 3 substance use disorder patients' overall perception of their health

Question Responses		Overall f (%)	Heroine f (%)	Cannabis f (%)	Other f (%)
How satisfied are you with your health?	Very Dissatisfied	169 (33.8)	78 (31.1)	85 (37.9)	6 (24)
	Dissatisfied	236 (47.2)	124 (49.4)	99 (44.2)	13 (52)
	Neutral	79 (15.8)	42 (16.7)	34 (15.2)	3 (12)
	Satisfied	8 (1.6)	3 (1.2)	4 (1.8)	1(4)
	Very Satisfied	8 (1.6)	4 (1.6)	2 (9)	2 (8)

Note. f= Frequency, %=percentage

Table 4 Four domains of quality of life among substance use disorder patients

Variables	M ± SD
Physical Health	20.56 ± 2.62
Psychological	23.31 ± 2.09
Social Relationship	10.19 ± 1.72
Environment	29.81 ± 3.1
Overall QoL	83.88 ± 8.61

Table 5 Inter items Correlation of four domains of quality of life

Variables	Physical Health	Psychological	Social Relationship	Environment
Physical Health	—	.63**	.73**	.84**
Psychological	—	—	.56**	.87**
Social Relationship	—	—	—	.68**
Environment	—	—	—	—

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

Table 6 Frequency and Percentage of drug of choice by gender

	Male (n=440)	Female (n=60)	Total
Cannabis	176(88.9%)	22 (11.1%)	(50.2%)
Heroin	185(88.5%)	24 (11.5%)	224 (44.8%)
Others	79 (84.9%)	14(15.1%)	3 (0.6%)
Opium	2(0.5%)	0(0%)	2(0.4%)
Tablets	8 (1.8%)	12 (20%)	20 (4%)

Table 7 Means, Standard Deviations, and One-Way Analyses of Variance in drug of choice and quality of life (N= 500)

Measures	Cannabis (n=198)		Heroine (n=209)		Other (n=93)		F	p
	M	SD	M	SD	M	SD		
Physical Health	20.50	2.73	20.36	2.53	21.14	2.53	2.92	.05
Psychological	23.24	2.18	23.16	2.04	23.81	1.95	3.25	.04
Social Relationship	9.92	1.55	10.08	1.72	10.42	1.50	3.01	.05
Environment	20.59	2.88	20.43	2.61	21.44	2.78	4.54	.01

## DISCUSSION

Substance use disorder has an incredible influence on the QoL of the patients. SUD can critically disturb the physical, psychological health, occupation, and other areas of life. In our study (table 1), representation of the male drug user was more as compare to females. The age of the substance use disorder patients were between 19 to 35 years. Most of the participants were single (46.0%) and were uneducated (56.0%). Indigenous research have also shown that the QoL of well-educated people was better than that of illiterate people because people with a higher level of education are more concerned about their well-being and have more knowledge about disease management<sup>(12)</sup>.

Study result showed that majority of the drug user were young (254). A study conducted in Pakistan on university students revealed that most of the students were using substances in their hostels, affecting their academic progress as well (Kalsoom & Farid, 2014). Over 90 percent of person diagnosed with substance use disorders usually belong to young age group. Peer group pressure may be considered as one of the most important contributing factors to drug addiction<sup>(13)</sup>.

In table 2, 49.8% of substance use disorder patients report poor perception of QoL. Correspondingly, in tabel 2 it was seen that 47.2 % of the patients were dissatisfied with the overall perception of their health. A study reported that substance use disorder patients had significant health-related issues<sup>(14)</sup>.

In table 3 findings revealed that substance abuse individual has poor perception of health as 81% (very dissatisfied: 33.8%, dissatisfied: 47.2%) patients were dissatisfied with overall perception of the health. Muller, Skurtveit<sup>(15)</sup> also found in their study that substance use is related with poor mental and physical health in patients of substance abuse.

In our study, environmental relationship domain had the highest mean score of QoL, and the social relationship domain demonstrated the lowest score (table 4). Substance use disorder disturbs the social relationships and functioning of the individual. Such patients suffer from a lack of social support, marital issues, violence and social isolation. A study found a significant relationship between substance use disorder and social problems.<sup>(16)</sup> A study was conducted in Australia<sup>(17)</sup> which showed that the reduced health knowledge was associated with the low level of support and predisposing factors in the environment<sup>(18)</sup>.

QoL is a crucial variable and foresees adverse consequences. A study reported that physical, psychological and social domains predict the QoL<sup>(19)</sup>. In table 5, the results showed that there is a strong and significant correlation among the four domains of the QoL, i.e., physical, psychological, social relationships, and environment. This study provides a shred of evidence that substance use disorder affects the QoL of the patients. Results are also supported by literature that showed that substance use disorder creates an imbalance in the economy of the nation.<sup>(20)</sup> It causes an increased crime rate, health problems, and low productivity of the employees.

According to the recent report by UNODC and Pakistan Bureau of Statistics in 2013, an estimated 6.45 million of the

population in Pakistan use drugs on an annual basis with cannabis being the most used drug (United Nations Office on Drugs and Crime [UNODC], 2013).<sup>(2)</sup> Present study also found similar results in table 6 that most of the respondents in both genders preferred taking Cannabis and they reported poor perception of quality of life. The substance use disorder can be treated and prevented with the help of professionals and official legislators. There should be some researches in the area of preventive and efficacious treatment measures to support the community. Study has some limitations as well as the sample size was not large enough and study was held in only one province of Pakistan. Furthermore, only quality of life area was assessed and representation of male was higher as compare to female, these limitation limit study generalizability to entire population of Pakistane sample. Hence, further reserch should be focused on coducting research with more diverse large population and in different region of Pakistan.

## CONCLUSION

The result of the study showed that substance use disorder patients had a poor perception of the QoL along with the dissatisfaction of the overall perception of the health. Thus, the results concluded that substance abuse disrupt all four QoL. Hence, there should be some awareness and health-related programs to improve the QoL of substance use disorder patients.

## Statements

**Author contribution:** BZ and MS: conceptualization, investigation, roles/writing—original draft.. AS: statistical analysis support and revision. RA: article writing—formal analysis, review and editing. AH & AY: methodology and supervision. All authors contributed to the article and approved the submitted version

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**Data sharing statement:** Data will be shared by requesting it from corresponding author (E-mail: muttahid.shah@rmi.edu.pk).

## Patient and Public Involvement

patients were included in the study based on the following exclusion criteria, they were informed about the nature of the study and their written and verbal consent was taken before their participation. data was collected using paper pencil based self-report questionnaire and researcher was present to answer their query regarding completing the questionnaire

## Strength and limitation of study

- Present study is unique as it highlights the quality of life of SUDs people living in KPK Province, where ratio of drug addiction is high. The study result will contribute in fighting stress and promoting health in general. The conclusions drawn from the study is crucial in developing policies against addiction.

- In the current study, there is less representation of women participants although it is justified in accordance to UN (2018) report that 78% drug addict are male and only 22 % are female.

- It is a cross-sectional study that has been conducted only on a clinical sample, which limit its generalizability.

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## REFERENCES

1. American Psychiatric A. Diagnostic and statistical manual of mental disorders : DSM-5. American Psychiatric Association 2013.
2. World Drug Report 2019. World Drug Report: UN; 2019.
3. Laudet AB. The case for considering quality of life in addiction research and clinical practice. *Addict Sci Clin Pract.* 2011;6(1):44-55.
4. Masood S, Us Sahar N. An exploratory research on the role of family in youth's drug addiction. *Health Psychol Behav Med.* 2014;2(1):820-32.
5. Bajaj G, Varghese AL, Bhat JS, Deepthi J. Assessment of Quality of Life of People who Stutter: A Cross-sectional Study. *Rehabilitation Process and Outcome.* 2014;3:RPO.S19058.
6. Lin Y-C. The Predictive Relationship of Health Related Quality of Life on Objectively-Measured Sleep in Children: A Comparison Across BMI Ranges. *Frontiers in neuroscience.* 2019;13:1003-.
7. S M. Psychiatric Co-morbidity and Patterns of Different Substance use among Individuals with Substance Dependence in Pakistan. *Journal of Psychiatry and Mental Health.* 2017;2(2).
8. Bernardes LFA, Hauck Filho N, Noronha APP. Relação entre uso de substâncias e qualidade de vida em uma amostra comunitária de adultos. *Psicologia - Teoria e Prática.* 2018;20(2).
9. Collins SE, Jones CB, Hoffmann G, Nelson LA, Hawes SM, Grazioli VS, et al. In their own words: Content analysis of pathways to recovery among individuals with the lived experience of homelessness and alcohol use disorders. *Int J Drug Policy.* 2016;27:89-96.
10. Narvaez JCM, Pechansky F, Jansen K, Pinheiro RT, Silva RA, Kapczinski F, et al. Quality of life, social functioning, family structure, and treatment history associated with crack cocaine use in youth from the general population. *Brazilian Journal of Psychiatry.* 2015;37(3):211-8.
11. Naz A, Khan W, Daraz U, Hussain M, Khan Q. The Sociological Analysis of Substance Abuse and its Socio-Psychological Impacts on Abusers. *Pakistan Journal of Criminology.* 2011 Oct 1;3(2).
12. Hussain MH, Jilane DA, Aziz S, Tariq S, Devi A, Avendaño-Capriles CA, et al. Predictors of Quality of Life Among People Living With Multimorbidity in Karachi, Pakistan: A Cross-Sectional Study. *Cureus.* 2021;13(10):e18803-e.
13. Yang C, Zhou Y, Cao Q, Xia M, An J. The Relationship Between Self-Control and Self-Efficacy Among Patients With Substance Use Disorders: Resilience and Self-Esteem as Mediators. *Frontiers in psychiatry.* 2019;10:388-.
14. Beaudoin M, Potvin S, Giguere CE, Discepola SL, Dumais A. Persistent cannabis use as an independent risk factor for violent behaviors in patients with schizophrenia. *NPJ Schizophr.* 2020;6(1):14.
15. Muller AE, Skurtveit S, Clausen T. Performance of the WHOQOL-BREF among Norwegian substance use disorder patients. *BMC Med Res Methodol.* 2019;19(1):44-.
16. Pettersen H, Landheim A, Skeie I, Biong S, Brodahl M, Oute J, et al. How Social Relationships Influence Substance Use Disorder Recovery: A Collaborative Narrative Study. *Subst Abuse.* 2019;13:1178221819833379-.
17. Degan TJ, Kelly PJ, Robinson LD, Deane FP. Health literacy in substance use disorder treatment: A latent profile analysis. *Journal of Substance Abuse Treatment.* 2019;96:46-52.
18. Wangenstein T, Bramness JG, Hals A. Growing up with parental substance use disorder: The struggle with complex emotions, regulation of contact, and lack of professional support. *Child & Family Social Work.* 2018;24(2):201-8.
19. Gobbens RJJ, van Assen MALM. The prediction of quality of life by physical, psychological and social components of frailty in community-dwelling older people. *Quality of Life Research.* 2014;23(8):2289-300.
20. Hamersma S, Maclean JC. Do expansions in adolescent access to public insurance affect the decisions of substance use disorder treatment providers? *Journal of Health Economics.* 2021;76:102434.