DOI: https://doi.org/10.47648/jswmc2023v13-01-59

Original Article

Health related Quality of Life and Relative Attributes among Substance Users

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Abstract

Background: Substance abuse is one of the most harmful widespread public health consequence. The prevalence of drug abuse has been increasing rapidly all over the world. Recently, in Bangladesh substance abuse is recognized as a grave health and social problem which threatening the whole nation.

Methods: A cross-sectional study was directed to assess health related quality of life and relative attributes among 235 substance users of Central treatment center and Brain and Life hospital situated in Dhaka. The questionnaire was prepared by using HRQoLDA scale.

Results: The mean age of substance users was 32.29±11.47 year. Two-thirds of the respondents (74.8%) were under graduate and worked in different profession. Most the respondents came from joint families (50.6%) and low income families (45.1%).The majority of the respondents used ganja (79.6%) followed by yaba (45.5%), alcohol (35.7%), injectable drugs(30.0%), fensidil (14.9%), tablet (9.8%) and rest heroine (9.4%). Two-thirds of the respondents started using drug by friends influence (67.2%) followed by family issues (28.1%), depression (21.7%) and rest other causes (10.6%).There were several significant associations were found between the variables as presence of any physical pain, presence of sleeping disturbance, presence of nausea, presence of lack of energy or tiredness, presence of depression, presence of aggressiveness, presence of recalling problem, presence of hallucination (a) auditory (b) Visual , presence of concentration problem, presence of disorientation problem, use of illicit drug to feel better physically, use of illicit drug to feel better mentally, presence of any physical pain which interfere daily activities, felt deterioration of physical condition, felt deterioration of mental condition, getting care from surrounding people, presence of any family problem, Believe if drug use reduce social activities, believe if some people can quit drug and the total mean scores of HRQOL. Age, education, Occupation, family income, duration of using of drug, and number of time of using of drug per day were statistically significant ($p<0.05$) with the total mean scores of HRQOL. Marital status and with drawal effects such as restlessness, loss of temper, insomnia were also statistically significant ($p<0.05$) with the total mean scores of HRQOL.

Conclusion: This study revealed that the total health related quality of life among substance users were not satisfactory. Implementation of public awareness programs and strong legislation can improve the health related quality of life of the substance users and help in reducing the substance abuse in the both individual and community level.

Keywords: Quality of life, Relative attributes Substance users Bangladesh.

JSWMC 2023 [13(01)] P: 20-27

Introduction

Substance abuse is used of alcohol, prescription medicine,

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and other illegal substances to changes their behavior. It's differs from addiction.[1] Globally, about 230 million people adult population are at least used one illegal drug. Alcohol and other drug users number about 27 million, which is .6% of the world's population. In 2012, 5.9% of total global deaths were attributable to alcohol consumption. Alcohol consumption also contributes to about 10% of the disease burden due to tuberculosis, epilepsy, hemorrhagic stroke and hypertensive heart disease in the world.[2]

Substance abuse is considered as an important public health and social problem in Bangladesh. It is increasing alertly among the young adults. It impedes the both physical and mental well-being of an individual.[1]The major prohibited drugs available in our country are opium derivatives (heroin), cannabis (ganja), stimulants (yaba), sleeping pills, cough syrup etc. Young males are being more affected than females by that drugs.[1]

Health related quality of life (HRQOL) is an indicator of overall health because it captures information on the physical and mental health status of individuals, and on the impact of health status on quality of life. It is used to assess multiple indicators of self-perceived health status and physical and emotional functioning. Together, these measures provide a comprehensive assessment of the burden of preventable diseases, injuries, and disabilities.[3,4]

Substance abuse becomes a major public health and socioeconomic problem across the world.[5]It affects all aspects of a person's life and creates problems in physical, psychological, environmental health and social relationships.[6]In Bangladesh it is showed that the most common problems which contribute to a decreased health related quality of life (HRQOL) are related to the substances users.[7]About 5.4% of the total global burden of diseases occurs due to alcohol use; illicit substances and tobacco use is responsible for 3.7% of the global burden of disease.[8] Global Burden of Disease Analysis reports that the prevalence of alcohol use disorders in adults to be around 1.7% globally.[9]This ultimately diverts a person from normal activity and causes behavioral, cognitive and physiological disturbance.[7]

It has been proposed that abuse or dependence on substances increases depressive disorder.[10] Users have a higher level of ill health and physical impairments than the general population, which affects physical and psychosocial functioning as it relates to an individual's HRQOL.[7] Users have less energy, disturbed sleep, are less able to perform, and reduced capacity for works. Day by day our working age group is being destroyed by addiction. If proper steps are not taken our country will be facing great disaster. Although our country has many drug rehabilitation centers there is a lack of proper awareness among the people how to rehabilitate an addict and help make them independent and productive. To rehabilitate an addict and create a good HRQOL, their physical, psychological, environmental health and social relationships need to improve.

Methods

Study design and settings

This is a cross-sectional study based on drug rehabilitation center was conducted to assess health related quality of life and relative attributes among substance users. The study was initiated from January, 2019 to December, 2019 at the purposively selected two drug rehabilitation centers named Central treatment center and Brain and Life hospital situated in Dhaka.

Data collection method and instruments

Data were collected by face-to-face interviews by using a pretested semi-structure questionnaire from 235 substance users admitted in the rehabilitation center at their convenience. The questionnaire was prepared by using HRQoLDA scale. The HRQoLDA is a quality of life assessment tool specific for drug abuse. It assesses the physical and psychosocial aspects of life through 20 five-choice items in a Likert type scale, with choices being designated 1–5 points. The choices are scored as follows: On the positive items: 'not at all' (5 points), 'a little' (4 points), 'sometimes' (3 points), 'quite a bit' (2 points), and 'a lot' (1 point). On the negative items: 'not at all' (1 point), 'a little' (2 points), 'sometimes' (3 points), 'quite a bit' (4 points), and 'a lot' (5 points). The sum of the 20 scores represents QoL, such that the higher the score, the better the QoL.

All items score from 1 (Much) to 5 (Nothing), except for the items 'You've had people who care about you' and 'You think there are people who can get rid of drugs' which score inversely 1 (Nothing) to 5 (Much), so that with the final 20 items proposed the minimum score is 20 (indicates a low HRQoL) and the maximum is 100 (indicates a high HRQoL).

Data analysis

The data were checked, cleaned, coded and categorized after the completion of data collection through SPSS v21.Descriptive statistics including frequency, percentage, means, and standard deviation were done. Inferential statistics including t- test and one-way ANOVA test were done. For in all the tests $p<0.05$ was considered to be statistically significant.

Ethical statement

Informed written consent was taken from each respondent. The study was validated by the 'Institutional Review Board' of the National Institute of Preventive and Social Medicine (NIPSOM), Dhaka 1212, Bangladesh. (Memo No: NIPSOM/IRB/2019/111)

Results

Table 1 outlines the mean age of respondents was 32.29±11.47 year; and most of them were married (51.1%) and Islam as religion (86.4%). Two-thirds of the respondents (74.8%) were under graduate and worked in different profession, such as day laborers (30.2%), businessmen (27.2%) and students (13.6%) etc. About half of the respondents came from joint families (50.6%) and had an average monthly family income of ≤10000 taka (45.1%).

Table 1:Socio-demographic characteristics of the substance users(n=235)

	Variables	Frequency (n)	Percentage (%)
Age group (years)	16-22	40	17.0
	23-28	82	34.0
	29-36	54	23.0
	>37	59	25.0
	Mean±SD		32.29±11.47
Marital status	Married	120	51.1
	Single	106	45.1
	Separated/divorced	9	3.8
Religion	Islam	203	86.4
	Hindu	32	13.6
Education	Can sign only	11	4.7
	Primary	50	21.3
	JSC	27	11.5
	SSC	41	17.4
	HSC	45	19.1
	Graduation & above	61	25.8
Occupation	Unemployed	25	10.6
	Service holders	30	12.8
	Day laborers	71	30.2
	Businessmen	64	27.2
	Students	32	13.6
	Others (Farmers, Doctors)	13	5.5
Family type	Single	116	49.4
	Joint	119	50.6
Family income (Taka in each month)	≤10000	106	45.1
	10,001-20,000	75	31.9
	20,001-30,000	20	8.5
	30,001-40,000	15	6.4
	>40000	19	8.1

Table 2 describes the factors related to physical and mental health related quality of life of the substance users. In the last 30 days, the majority of the respondents had physical pain (57.9%), had sleeping disturbance(66.4%), had nausea(54.8%), had lack of energy or tiredness(80.4%), had depression(89.4%), had aggressiveness(84.2%), had recalling problem(70.6%), had auditory-visual hallucinations(27.7%), had concentration problems(78.3%), had disorientation problems(44.0%), used of illicit drug to feel better physically(69.8%), used of illicit drug to feel better mentally(70.6%), and had physical pain which hampered daily activities(73.2%).

The majority respondents felt deterioration of physical condition(91.1%), and felt deterioration of mental condition(89.8%), getting care from surrounding people (95.7%), had family problems (64.3%), absolutely believed that if drug uses reduce social activities (57.9%), and absolutely believed that if some people can quit drug use (69.8%).

Table 2: Factors related to physical and mental health related quality of life (n=235)

Factors	Occurrence in last 30 days				
	≥15	8-14	3-7	1-2	Never
	n(%)	n(%)	n(%)	n(%)	n(%)
Presence of any physical pain	0(0.0)	27(11.5)	31(13.2)	78(33.2)	99(42.1)
Presence of sleeping disturbance	0(0.0)	53(22.6)	41(17.4)	62(26.4)	79(33.6)
Presence of nausea	2(0.8)	9(3.8)	63(26.8)	53(22.6)	108(46.1)
Presence of lack of energy or tiredness	44(18.7)	58(24.7)	51(21.7)	36(15.3)	46(19.6)
Presence of depression	46(19.6)	36(15.3)	66(28.1)	62(26.4)	25(10.6)
Presence of aggressiveness	29(12.3)	16(6.8)	106(45.1)	47(20.0)	37(15.7)
Presence of recalling problem	29(12.3)	39(16.6)	35(14.9)	63(26.8)	69(29.4)
Presence of hallucination					
a) Auditory hallucination	18(7.6)	0(0.0)	11(4.0)	4(1.7)	0(0.0)
b) Visual hallucination	18(7.6)	0(0.0)	10(4.3)	4(1.7)	170(72.3)
Presence of concentration problems	25(10.6)	32(13.6)	12(5.1)	115(48.9)	51(21.7)
Presence of disorientation problem	2(0.9)	6(2.6)	27(11.5)	45(19.1)	155(66.0)
Uses of illicit drug to feel better physically	87(37.0)	0(0.0)	38(16.2)	39(16.6)	71(30.2)
Uses of illicit drug to feel better mentally	84(35.7)	4(1.7)	48(20.4)	30(12.8)	69(29.4)
Presence of any physical pain which interfere daily activities	23(9.8)	33(14.0)	59(25.1)	57(24.3)	63(26.8)

	Always	Many a times	Sometimes	Couple of times	Never
	n(%)	n(%)	n(%)	n(%)	n(%)
Felt deterioration of physical condition	87(37.0)	13(5.5)	97(41.3)	17(7.2)	21(8.9)
Felt deterioration of mental condition	91(39.1)	9(3.8)	60(25.5)	50(21.3)	24(10.2)
Getting care from surrounding people	142(60.4)	33(14.0)	50(21.3)	0(0.0)	10(4.3)
Presence of any family problem	44(18.7)	18(7.7)	69(29.4)	20(8.5)	84(35.7)

	Absolutely	Pretty much	A fair bit	A little bit	Not at all
	n(%)	n(%)	n(%)	n(%)	n(%)
Believe drug use reduce social activities	136(57.9)	62(26.4)	32(13.6)	5(2.1)	0(0.0)
Believe some people can quit drug use	164(69.8)	52(22.1)	4(1.7)	5(2.1)	10(4.3)

Table 3 demonstrates that the majority respondents were used of drug for >5 years (59.2%), followed by (39.6%) were used 1-5years, and only a few (1.3%) were used <1 year. Regarding the frequency of drug uses, the majority of the respondents were mentioned that they used drug 1-5 times (66.0%), followed by (10.2%) were used <1 time and (23.8%) were used >5 times per day. About effects of withdrawal of drug, 62.1%had restlessness, 42.6% had insomnia, and 34.5% had loss of temper when they did not use drug.

Figure 1 shows that the majority of the respondents used Ganja (79.6%) followed by Yaba (45.5%), Alcohol (35.7%), Injectable drugs (Morphene, Pathedine) (30.0%), Fensidil (14.9%), tablet (9.8%) and rest heroine (9.4%).

Figure 2 shows that two-thirds (67.2%) of the respondents started using drug by friend influence followed by family issues (28.1%), depression (21.7%) and rest other causes (10.6%).

Table 3: Relative attributes among substance users

Relative attributes		Frequency (n)	Percentage (%)
Duration of use of drug(n=235)	<1 year	3	1.3
	1-5 years	93	39.6
	>5 years	139	59.2
Number of time of using drug per day(n=235)	<1 time	24	10.2
	1-5 times	155	66.0
	>5 times	56	23.8
Effects withdrawal of drug	Restlessness	146	62.1
	Loss of temper	81	34.5
	Insomnia	100	42.6
	Other issues	69	29.4
			*Multiple responses

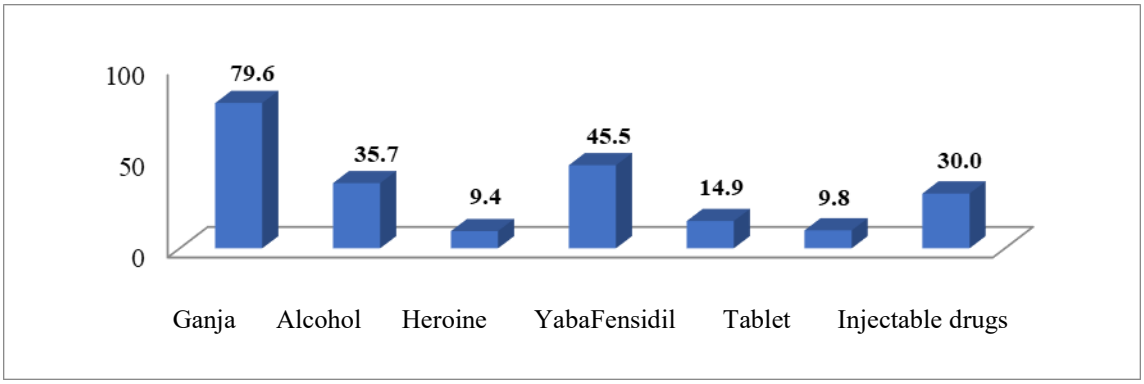

Figure 1: Types of drug used by users

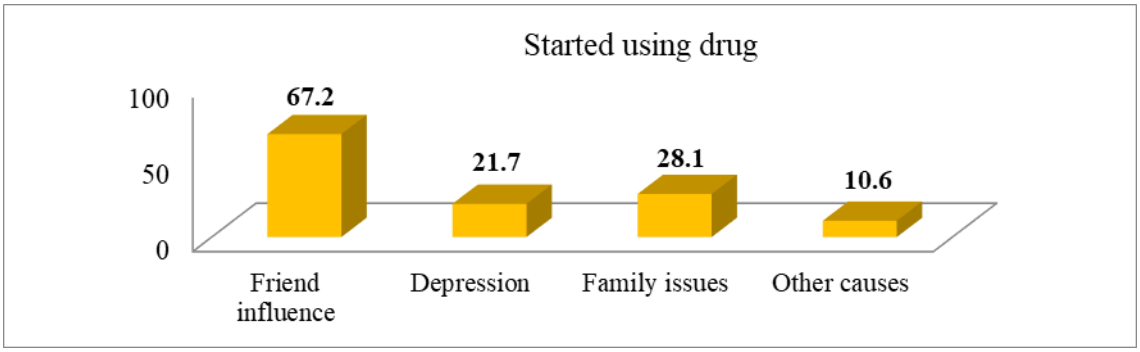

Figure 2: Factor influences to use drugs

Table 4 interprets that there were several significant associations were found between different variables and the total mean scores of HRQOL. Age (F=15.360, p=0.000), education (F=30.885, p=0.000), Occupation (F=6.915, p=0.000), family income (F=6.837, p=0.000),

duration of using of drug (F=17.572, p=0.000), and number of time of using of drug per day (F=3.312, p=0.038) were statistically significant with the total mean scores of HRQOL. Marital status (t=3.808, p=0.000), and withdrawal effects such as restlessness (t=1.971, p=0.050), loss of temper (t=6.139, p=0.003), insomnia (t=5.113, p=0.003) were also statistically significant with the total mean scores of HRQOL.

Table 4: Association of different variables with total mean scores of HRQOL

		N	Mean	SD	F/t value	P-value
Age (years)	16-22	40	73.18	4.39	F=15.360	*0.000
	23-28	82	66.38	8.98		
	29-36	54	76.76	7.60		
	>37	59	71.02	11.99		
Marital status	Married	120	73.78	9.93	t= 3.808	*0.000
	Single	106	68.98	8.86		
Religion	Islam	204	70.94	10.39	t= 0.577	0.283
	Hindu	31	72.03	3.90		
Education	Can sign only	11	68.81	0.40	F=30.885	*0.000
	Primary	50	74.96	4.57		
	JSC	27	56.14	4.97		
	SSC	41	67.04	5.81		
	HSC	45	75.40	10.80		
	Graduation & above	61	74.45	9.34		
Occupation	Unemployed	25	61.96	11.94	F=6.915	*0.000
	Service holders	30	75.67	13.04		
	Day laborers	71	70.63	10.19		
	Businessmen	64	72.50	6.91		
	Students	32	72.56	4.94		
	Others	13	69.91	2.63		
Family type	Single	116	70.35	10.10	t= -1.132	0. .259
	Joint	119	71.79	9.46		
Family income	≤10000	106	68.86	8.65	F=6.837	*0.000
	10,001-20,000	75	74.65	8.29		
	20,001-30,000	20	66.25	5.82		
	30,001-40,000	15	76.40	17.46		
	>40000	19	70.31	10.96		
Duration of use of drug	<1 year	3	71.00	0.00	F=17.572	*0.000
	1-5 years	93	75.47	7.20		
	>5 years	139	68.29	10.17		
Number of time of using drug per day	<1 time	24	71.33	3.16	F=3.312	*0.038
	1-5 times	155	70.03	9.52		
	>5 times	56	73.91	11.76		
Factor influences to use drugs	Friends' influence	158	73.73	7.71	t= 6.435	*0.000
	Depression	51	70.00	10.90	t= 0.894	0.372
	Family issues	66	65.58	11.77	t= 5.749	*0.000
Effects withdrawal of drug	Restlessness	146	72.06	8.75	t= 1.970	*0.050
	Loss of temper	81	76.11	9.75	t= 6.139	*0.003
	Insomnia	100	67.48	10.00	t= 5.113	*0.003

*Statistically significant value F= One-way ANOVA test value t= t test value

Discussion

The study showed that the mean age of the substance users was 32.29±11.47 years, where the one-third of the respondents (34.0%) was within the age group 23-28 years. In a study of Dhaka University, most participants were aged between 25-35 years and the mean of age was 28.8±7.9 years.[11]Other studies in India, most of users were in the age group of 26-35 years and the mean age of users was 32.8±6

years.[12]Another study in Bangladesh showed that the mean age was 28.4±6.7% years.[6]Most of the respondents (51.1%) were married. These findings were almost similar with these studies.[11,13,14]

The study result showed that in the last 30 days, the majority of the respondents had physical pain (57.9%), had sleeping disturbance(66.4%), had nausea(54.8%), had lack of energy or tiredness(80.4%), had depression(89.4%), had aggressiveness(84.2%), had recalling problem(70.6%), had auditory-visual hallucinations(27.7%), had concentration problems(78.3%), had disorientation problems(44.0%), use of illicit drug to feel better physically(69.8%), used of illicit drug to feel better mentally(70.6%), and had physical pain which hampered daily activities(73.2%). The majority respondents felt of deterioration of physical condition (91.1%), and felt of deterioration of mental condition (89.8%), getting care from surrounding people (95.7%), had family problems (64.3%), absolutely believed that if drug use reduce social activities (57.9%), and respondents absolutely believed that if some people can quit drug use (69.8%).

The current study showed that the majority respondents were used of drug for >5 years (59.2%), followed by (39.6%) were used 1-5years, and only a few (1.3%) were used <1 year. Regarding the frequency of drug uses, the majority of the respondents were mentioned that they used drug 1-5 times (66.0%), followed by (10.2%) were used <1 time and (23.8%) were used >5 times. About effects withdrawal of drug, 62.1%had restlessness, 42.6% had insomnia, and 34.5% had loss of temper when they did not use drug. The majority of the respondents used Ganja (79.6%) followed by Yaba (45.5%), Alcohol (35.7%), Injectable drug (Morphene, Pathedine) (30.0%), Fensidil (14.9%), tablet (9.8%) and rest heroine (9.4%). Two-thirds of the respondents started using drug by friend influence (67.2%) followed by family issues (28.1%), depression (21.7%) and rest other causes (10.6%).In this study, a significant difference was found in age (F=15.36, p=0.000). Average scores of health related quality of life were lower in age group 23-28 years (66.38±8.98) than other age groups. The educational qualification (F=30.885, p=0.000) showed the significant difference. Average scores of health related quality of life were lower related to educational qualification in those who completed JSC (56.14±4.97) than other educational level. The significant difference was showed in monthly income (F=6.837, p=0.000) group among the substance users. Average scores of health related quality of life were lower in related to monthly income group 20,001-30,000 taka (66.25±5.82) than other monthly income groups. A significant difference was revealed in occupation (F=6.915, p=0.000). Average scores of health related quality of life were lower related to occupation in unemployed persons (61.96±11.94) than persons with other occupations. The average scores of health related quality of life were lower related to marital status in single persons (68.98±8.86) than married persons (73.775±9.93). Marital status (t=3.808, p=.0000) showed the significant difference.

In this current study, the duration of use of drug (F=17.572, p=0.000) showed the significant difference. Average scores of health related quality of life were lower related to the duration of use of drug who used it >5 years (68.29±10.17) than other duration of use of drug groups. A significant difference was found in this study in those who started using substances due to friends influence (t=6.435, p=0.000) and family issues (t=5.749, p=0.000). Average scores of health related quality of life were lowest in respondents who started using substances due to family issues (65.58±11.77) than friend influence (73.73±7.71) and depression (70.00±10.91). No significant difference was showed in those who started using substances due to depression (t=0.894, p=0.372).

It was revealed that the number of time of using of drug per (F=3.312, p=0.038) showed the significant difference. Average scores of health related quality of life were lower related to time of using of drug per day who used it >5 times per day (73.91±11.76) than other groups. A significant difference was found in the mean scores of respondents' symptoms when not using drugs in this study. Average scores of

health related quality of life were lowest in respondents who suffered from insomnia (67.48±10.01) if stop the use of drugs than restlessness (72.06±8.76) and loss of temper (76.11±9.75). Restlessness (t=1.971, p=0.050), loss of temper (t=6.139, p=0.000), insomnia (t=5.113, p=0.000) showed significant difference.

Conclusion

In this study total health related quality of life among substance users were not satisfactory. The findings of the result suggest that most of the substance users have problem in relation to socio-demographic characteristics to health related quality of life in the domain of physical pain, sleeping problem, nausea or vomiting, tiredness or lack of energy, anxiety, depression, aggressiveness, dementia, lack of concentration, disorientation and deterioration of physical and mental health. The common uses substances are ganja, heroine and Fensidil. It also showed that those who stop taking substances faced symptoms like restlessness, insomnia; loss of temper also had strong significant association with the HRQoL. This study showed a very optimistic finding that the respondents had an absolute belief that using drug reduces social activities.

Acknowledgments: The authors are thankful to all of the studied the respondents and rehabilitation centers authorities for their compassionate cooperation.

Competing interests: All the authors declared no competing interests.

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