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QUALITY OF LIFE, BEHAVIOURAL ACTIVATION AND INHIBITION AND PERCEIVED SOCIAL COMPETENCE AMONG DRUG ADDICTS: A CASE STUDY OF DIAMORPHINE ADDICTS

Sumaya Batool[*], Muhammad Usama Gondal[†] & Muhammad Kamran[‡]

Abstract

The purpose of this article was to shower light on the quality of life that mostly we expect. Life quality is determined by two aspects i.e., physiological and psychological aspects. While if a person is addicted to the drugs, then both aspects of his/ her life is deteriorated to the extreme. Due to drug addiction, the negative psychological effects which arises are anxiety, stress, depression, and familial relationships while the negative physiological effects that arise from the drug addiction are weakness, headache, dizziness, and pain in the body, etc.

The main objective was to evaluate the quality of life of Diamorphine addicts, behavioral stimulation and inhibition, perceived social competence, and the relationship among these variables; and check differences between drug addicts on these variables based on their belongingness to joint and nuclear family systems. To achieve the objectives, 10 Diamorphine addicts were taken from Azm Drug Rehabilitation center, Sargodha, through purposive sampling. A total number of 10 participants responded to the 26-items quality of life survey (WHO-QOL-BREF), 24-items BAS/BIS (BIS/BAS scale) questionnaire, and 5-items perceived social competence questionnaire (Perceived Social Competence Scale II). Results were analyzed via SPSS

[*] Lecturer, Department of Psychology, University of Sargodha, Sargodha, Pakistan. Email: sumaya.batool@uos.edu.pk

[†] MPhil Scholar, Department of Psychology, University of Sargodha, Sargodha, Pakistan. Email: Usamagondal056@gmail.com

[‡] Assistant Professor, Department of Education, University of Loralai, Balochistan, Pakistan. Email: kamrankundi86@gmail.com (Corresponding author)

version 20. The results showed that all three variables in the study were not associated with each other. Quality of life and social competence correlated -.25 (p = n.s); quality of life and BAS/BIS had .30 (p = n.s); while social competence and BAS/BIS had -.16 (p = n.s). It may be due to the cultural settings of Pakistan. In drug addicts, BAS has high activity, and BIS has low activity. And there is no significant difference in these variables among addicts of the nuclear and joint family system.

Keywords: Life Quality, Behaviour Activation/Inhibition Systems, Social Competence

Introduction

Substance use disorder, also known as opioid addiction, is a condition that affects a person's actions and behaviour and contributes to an inability to control the use of an approved or illegal drug or prescription. Natural drugs, including tobacco, alcohol, and nicotine, are also classified in the drug group. It is generally shown that when someone gets addicted, they tend to take drugs regardless of their adverse effects (Ventura & Bagley, 2017).

Quality of life was described by the World Health Organization as an individual's view of their life circumstances; primarily related to criteria, aims, and expectations; concerning their value, system and culture (Douaihy & Singh, 2001). There are different measures to check the quality of life. However, the common and accurate indicators of quality of life are financial status, professional field, mental and physical health, educational level, time spend to fulfil one's aesthetic needs, built environment, and relationships with other people (Nussbaum & Sen, 1993).

Quality of life has two aspects/components: physiological and psychological. Drug addiction deteriorates the quality of life by affecting both of its aspects. Some common psychological negative outcomes of drug addiction include negative emotionality such as anxiety, stress, depression, and familial relationship problems. In contrast, some common physiological harmful effects include weakness, headache, dizziness, and pain in the body, etc.

Research has shown that opioid abusers have adverse psychological and physical consequences, including poor quality of life and a loss of life satisfaction for drug addicts (Bizzarri et al. 2005; Vaarwerk & Gaal, 2001; Smith & Larson, 2003).

In a cultural context, quality of life includes the following sub-domains: individuality and rendezvous, creativeness and amusement, reminiscence and projection, principles and notion, sexual identity and reproductive outcomes, the quest for knowledge, and erudition, welfare and fitness. Moreover, independence, basic human rights, and contentment are also related to the above-stated factors (Layard, 2006). Quality of life may be

associated with sensitivity to reward and punishment or the biopsychological phenomenon of behaviour.

One of the remarkable theories combining physiological and psychological domains is the biopsychological theory of personality put forward by Gray (1970). He conceptualized two distinct mechanisms that regulate behavioural actions: The behavioural inhibition (BIS) mechanism is one, and the behavioural activation system is another (BAS). The former is said to regulate motivation for avoidance and punishment sensitivity, while the latter is thought to regulate motivation for sensitivity to approach and reward.

According to Gray (1970), Behavioral Inhibition System (BIS) operates on a bio-psychological mechanism involved in predicting an individual's response towards negative stimuli and cues in his/her environment. This system is operated in response to negative cues such as negative emotional states like depression, stress, anxiety, trauma, boring events, and/or punishment. It tends to regulate the behavior of the individual so that these unpleasant and negative outcomes are avoided. Moreover, BIS regulates an individual's sensitivity to chastisement and drive to avoid unpleasant events. If BIS's activity is higher, it will result in more sensitivity to non-reward, new situations and circumstances, and punishment. Resultantly, when an individual's sensitivity in response to these negative and unfamiliar stimuli is higher, it will tend to avoid them naturally to keep the individual safe from unpleasant experiences like phobia, nervousness, stress, disturbance, and boredom.

Conversely, the Behavioral Activation System (BAS) operates on the principle of approach motivation, i.e. a person's urge to chase and accomplish goals. This system is activated in response to positive and reward-eliciting stimuli and regulates those behaviors that are unrelated to negative outcomes. This system is associated with hope. It creates sensitivity to positive and pleasant stimuli and is also believed to cause or regulate impulsivity. Moreover, it also creates motivation for reward and to approach pleasant things. If the activity of BAS is higher, it tends to create positive mental states like happiness, optimism, and joy, etc. in response to positive stimuli that involve reinforcement; also promoting behaviors related to goal attainment. Individuals with higher BAS behavior tend to engage more in goal-directed tasks and feel more fun and optimistic when they get what they want or get the reward (Gray, 1970).

Substance-related disorders usually arise in two dissimilar conditions: low activity of BIS and/or high activity of BAS. As the BAS induces a person to respond to pleasure and satisfaction, it is also believed that when the drug is viewed as a reward and a rewarding thing, the onset of substance craving is encouraged. Significant connections in adolescent women between high BAS and alcohol dependency, drug use in boys and men, in various studies, illegal drug use, and smoking have been documented. Also,

BAS activity is seen as a notable indicator of the approach to drug indications and/or cravings.

Franken, Muris, and Georgieva (2006) claimed that, on the other hand, because BIS regulates a person to escape undesirable situations or effects (e.g., withdrawal), low BIS behavior is seen to be positively related to the continuation of drug use to protect itself from adverse withdrawals or otherwise to remain mentally detached from adverse feelings caused by adverse life circumstances.

Empirical research conducted by Franken and Muris (2006) surveyed 276 university students and investigated the correlation between drug addiction and BAS/BIS personality traits. Results revealed that BAS personality had a significant positive correlation with drug addiction and a slightly lower negative correlation with BIS personality. The magnitude of correlation was the highest for BAS personality and illicit drugs, along with recurring and sporadic drinking.

Social competence denotes the extent to which persons make prosaically manners that permit them to productively build and sustain constructive connections with others (Gresham, 2002). Perceived social competence is defined as a person's view about own capability to engage in successful communal communications and relations (Anderson & Messick, 1974).

It has a strong positive correlation with resilience and constructive control (Childs et al., 2001; Chen et al., 2002; Lengua, 2003). Low levels of perceived social competence, on the other hand, have a positive correlation with current and subsequent depressive indicators (Hammen et al., 2004; Harter, S., & Whitesell, 1996; Rudolph, & Clark, 2001) and suicidal ideation (Sourander et al., 2001). Perceived social competence is inversely related to psychological disorders generally (McGee & Stanton, 1992) and even the possibility of developing certain mental disorders (McGEE, et al., 1990). Moreover, perceived social competence impacts interactions with other people in several different ways. Previous research has found that perceived social competence correlates positively with one's social circle size (Bierman & McCauley, 1987).

Substance abusers belonging to different types of family systems may have different levels of BAS/BIS, perceived social competence, and quality of life. There is evidence from previous research that there is a significant difference in drug addiction based on individuals belonging to the joint and nuclear family system. Akhter (2012) reported that participants belonging to joint families were consuming significantly higher amounts of substances than participants in nuclear families. Contrary to this, Qadri et al. (2013) found in their study that substance abusers belonging to the nuclear families were higher (57.49%) in comparison to abusers belonging to the joint family system (42.50%). In another study, Ahmad, Khalique & Khan (2009) did not find any important relationship between family and substance addict.

Previous research has shown that life quality had a significant correlation with behavioural activation and behavioural inhibition systems among middle school children (Heshmati & Avarsin, 2017). Another study was conducted on adolescent females with an autism spectrum disorder. Results revealed that these girls had low levels of social competence and poor quality of life (Jamison & Schuttler, 2015). In Pakistan, for this study, the current researchers have found very few studies on these variables for the said population. It might be due the reason that this area of research has various limitations. Keeping the importance of this research in Pakistani perspective, involving behaviour activation and inhibition, psychosocial competency, and quality of life concerning drug addiction, the present study has checked these variables among these people and investigated how these variables operate in these people.

Method

Case studies are widely used in social sciences research methods to collect data regarding the various behaviours (Zainal, 2007) such as analysing the social and psychological behaviours. Therefore, case study is widely used as a research method when psycho-social behaviours have to explain (Zainal, 2007). To conduct this empirical study in the field, a case study design was employed to run the procedure of the study smoothly. This case study specifically explores the Diamorphine Addiction Case. The said case was situated in the rehabilitation centre situated in the city of Sargodha, Punjab, Pakistan. The case study design was chosen because of its detailed description of the case (i.e., Diamorphine Addiction Case) following the guidelines of the public health department in Pakistan.

The present study has been conducted to study the relationship between Quality of life, Behavioural Activation, and Inhibition, and Perceived Social Competence among Drug Addicts. In the light of previous studies, the following hypotheses were proposed: (1) Quality of life will be related to behavioural activation and inhibition in Diamorphine addicts. (2) Quality of life will be positively related to social competence in Diamorphine addicts. (3) Behavioural activation and inhibition will be related to social competence in Diamorphine addicts. (4) There would be a significant difference in patients belonging to the joint or nuclear family system based on study variables.

Participants

The population for this study was drug addicts. To approach these patients, drug rehabilitation centres were visited. The sample comprised of 10 patients with Diamorphine addiction, taken from Azm Drug Rehabilitation Centre, Sargodha. All were men with an age range of 30-50.

Participants were selected through purposive sampling. Patients belonged to both family systems (joint and nuclear).

Measures

Three scales were used in this analysis to accomplish the research goals and to evaluate the hypotheses. The first scale developed by Power et al. (2005) was referred to as the WHO-Quality of Life Scale (WHO-QOL). With 4 subscales, it has 26 items. On a 5-point rating scale, scoring is completed, with 1 = strongly disagree to 5 = strongly agree. The high score reflects the high quality of life and vice versa. The physical function is calculated by item numbers 3, 4, 10, 15, 16, 17, and 25. Psychological functioning is calculated by item numbers 5, 6, 7, 11, 18, and 26. The social dimension is determined using items 19, 20, and 21. Items 8, 9, 12, 13, 14, 22, 23, and 24 are used to assess the environment. Quality of Life and Health Awareness is calculated by item numbers 1 and 2.

BIS/BAS scales (Carver & White, 1994). The BIS/BAS scales were developed by Carver and White (1994). The 24 items are completed using a 4-point scale (from 1, disagree strongly to 4, agree strongly). Factor analysis revealed a single 7-item scale designed to assess BIS features (item numbers 2, 8, 13, 16, 22, 24), and three scales, Reward Responsive (RR; item numbers 4, 7, 14, 18, 23), Drive (DR; item numbers 3, 9, 12, 21) and Fun Seeking (FUN; item numbers 5, 10, 15, 20) that assess different aspects of BAS functioning. Cronbach's α for the BIS, RR, and FUN scales are .74, .73, .76, and .66, respectively, as reported by Craver and White (1994). Items 1, 6, 11, and 17 are fillers.

Perceived Social Competence Scale-II (Anderson-Butcher, Iachini & Amorose, 2008). The PSCS-II had been developed from the original Perceived Social Competence Scale (PSCS), a four-item scale used to measure various social competence elements (Anderson-Butcher, Iachini & Amorose, 2008). PSCS-II is a five-item scale with a point rating scale. 1=Not at all true; 2= A little true; 3=Somewhat true; 4= Pretty true: 5=Really true.

Procedure

10 Diamorphine-addicted patients were taken from Azm centre, Sargodha. The scales of Quality of life, BIS/BAS, and Perceived Social Competence were applied to them. Written informed consent was taken from the patients as well as the doctor of the rehabilitation centre. Patients were asked to give true and honest responses and that their confidentiality will be maintained. After completion of the questionnaires, participants were thanked for their cooperation. Then, all the responses were entered in SPSS-24, and the results were analysed.

Results

Table 1: Psychometric Properties of Study Variables (N = 10)

					Range			
Variable	***N***	***M***	***SD***	**A**	**Potential**	**Actual**	**Skewness**	**Kurtosis**
QOL	10	83.11	23.23	.90	26-130	49-112	-.31	-1.62
PSC	10	21.44	5.87	.96	5-25	8-25	-1.87	2.01
BAS/BIS	10	76.89	7.47	.61	24-96	63-89	-.44	.92

QOL = Quality of Life. PSC = Perceived Social Competence. BAS/BIS= Behaviour Activation/Inhibition System

Table 1 shows the psychometric properties of study variables. The reliability analysis indicates the reliability coefficient of quality of life, perceived social competence, and behavioural activation/inhibition scale is .90, .96, and .61, respectively, which reasonably confirms the internal consistency. It is suggested that univariate normality causes no problem if skewness and kurtosis values are less than 2 for both the above scales.

Table 2: Pearson correlation among study variables (N=10)

Variables	**1**	**2**	**3**
1. Quality of Life	-	-.25	.30
2.Social Competence		-	-.16
3.BAS/BIS			-

Table 2 shows Pearson's correlations among the study variables. The findings indicate no significant correlation between any of the variables.

Table 3: Mean, Standard Deviation, and t-values for Joint and Nuclear Family Systems on Quality of Life, Perceived Social Competence and BAS/BIS (N=10)

Variables	**Joint(n=6)**		**Nuclear(n=4)**		**t(df) t(8)**	**p**	**95% CI**	
	M	**SD**	**M**	**SD**			**LL**	**UL**
Quality of life	86	23.0	77.33	27.53	.502	.631	-32.13	49.47
PSC	21.2	6.64	22.00	5.19	-.188	.856	-11.31	9.64
BAS/BIS	77	8.31	76.67	7.09	.059	.955	-13.02	13.69

Table 3 shows mean, standard deviation and t-values for Joint and Nuclear family systems on Quality of Life, Perceived Social Competence and BAS/BIS. Results indicate non-significant mean differences on quality

of life with t (7) = .502, p = n.s. The findings show that Joint family victims scored high on quality of life (M = 86.00, p = n.s) as compared to nuclear family victims (M = 77.33, p = n.s). Results indicate non-significant mean differences on perceived social competence with t (7) = .188, p = n.s. The findings show that patients with nuclear family system (M = 22.00, p = n.s) scored higher on perceived social competence as compared to patients with joint family system (M = 21.20, p = n.s). Results indicate non-significant mean differences on behavioural activation and inhibition with t (7) = .059, p < .001. The findings show that Joint family victims scored higher on BAS/BIS (M = 77.00, p = n.s) as compared to nuclear family victims (M = 76.67, p = n.s).

Discussion

In the present study, the relationship of quality of life, perceived social competence, and behavioural activation/inhibition was checked in Diamorphine addicts; and differences in these variables were based on patients' belongingness to the joint or nuclear family system. These constructs were mostly studied in different contexts and independently from each other. Very few studies combine these variables, and these studies were conducted on specific samples other than drug addicts. For example, quality of life significantly correlated with behavioural activation and behavioural inhibition systems among middle school children (Heshmati & Avarsin, 2017). In adolescent females with an autism spectrum disorder, results of a study revealed that these girls were having low levels of social competence and poor quality of life (Jamison & Schuttler, 2015). All these studies were independent and specific, so in the present study, the novelty was checked (i.e., the relationship was checked in drug addicts).

Results revealed no significant correlation among these variables in drug addicts. Pearson's correlation was determined between the variables; findings indicated that the variables are not correlated with each other in our sample of Diamorphine-addicts in the population of Pakistani sociocultural background.

Moreover, results were also checked concerning joint and nuclear family systems because both have some specific characteristics that may have some role in determining the drug addiction of the patients, and previous studies have found different results for the association between drug users and type of family (Ahmad et al., 2009; Akhter, 2012; Qadri et al., 2013).

So, an independent sample t-test was applied to the results; results indicated no significant between-group differences. It is also not influenced by the sense that the three factors (quality of life, BAS/BIS, and perceived social competence) are the same in Diamorphine-addicted patients, whether a patient is part of a joint or nuclear family system. This result of the present

study is in line with a previous study conducted by Ahmad et al. (2009). They did not find any significant association between type of family and drug abuser.

These results may be because in our Pakistani culture, 8.9 million people are drug users. As a result, drug usage is not impacted by a residency in a joint or nuclear family system. Moreover, quality of life often varies from area to area in Pakistan; some areas are well-built where people have a good quality of life; some areas are badly developed so that they survive hand to mouth, and thus the quality of life is low. Hence most probably, quality of life does not seem correlated with behavioural activation and inhibition in drug addicts, so findings also indicated no correlation. Similarly, perceived social competence does not correlate with the quality of life and behavioural activation and inhibition. It could be attributed to the reality that faith supports people and participates in pro-social behaviour. All the participants were Muslims, so this neither correlated with their biological, behavioural activation, and inhibition systems nor with their qualities of life.

Conclusion

The present study focussed on quality of life, BAS/BIS, and perceived social competence in drug addicts. The variables (quality of life, BAS/BIS, and perceived social competence) are not correlated in the present sample of Diamorphine addicts. Moreover, being a member of the joint or nuclear family system, all the 3 variables are not significantly different from each other in the Diamorphine addicts. One of the reasons that the said variables are not correlated is Pakistan's culture may be due to various factors; these factors are being left for the future researchers as a research gap. The future researchers should conduct the extensive studies by employing various research methods and designs to explore this fact that why the said variables (i.e., quality of life, BAS/BIS, and perceived social competence) are not correlated in the present sample of Diamorphine addicts in Pakistani Population.

Implications

This study has following implications for the future researchers.

i. Behavioural activation is a mean that can be used for the intervention of the depression of drug addicts.
ii. Behavioural activation is the empirical treatment validation for the depression of drug addicts.
iii. Further extensive and systematic research is needed to assess the relationships of the said variables (i.e., quality of life, BAS/BIS, and perceived social competence).

iv. This study has recruited limited and small sample therefore this study does not want to generalize the results on the whole population of drug addicts.
v. To validate the generalization, the future researchers are suggested to recruit bigger samples by employing multiple research methods and data collection tools and procedures.

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