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Emotional Regulation and Quality of Life among Substance Users

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Abstract

A substance use disorder is a chronic physical & mental health concern caused by obsessive use of substance, regardless of its adverse effects. A key objective of this study was to examine emotional regulation and its relationship to quality of life among substance users. The study used purposive convenient sampling to collected data from 250 participants with substance dependency aged over 18 years from various rehabilitation facilities spread across five cities. Study measure included drug history Performa with a demographic information sheet using Urdu translated versions of scales Emotional Regulation questionnaire (Gross & John, 2003) which comprises Suppression and Reappraisal subscales and WHOQOL-BREF. According to a descriptive analysis of sample characteristics, the majority of participants were from the middle class and had a family history of substance use. The finding of the correlation of cognitive reappraisal showed a positive relationship with quality of life while expressive suppression showed a negative relationship. However, significant gender differences were found concerning emotional regulation & quality of life. Future study planning can benefit from the findings. Further, therapeutic intervention strategies of emotional regulation for substance users must take these studies into account.

Keywords: Addiction, Cognitive Reappraisal, Emotional Regulation, Expressive Suppression, Quality of Life, Substance Use

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Introduction

Substance abuse & addiction is one of Pakistan's alarming social and health epidemics which is affecting large numbers of population (Ahmadzee, 2015). It is now emerged as third most prevalent psychiatric condition which is 15% with high morbidity and mortality rates following schizophrenia 17% and depression 48% among people seeking treatments (Hjemsaeter et al., 2019). Many people take substances as a means of dealing with emotional distress and unaddressed mental health problems (Weinberg & Klonsky, 2009). Asad reported that 7 million adults' people of Pakistan use illicit drug on every day (Asad, 2014). In Pakistan, Ministry of Narcotics Control reported that around 4 million cannabis and 2.7 million opiates users other than alcohol or tobacco (United Nations Office of Drugs and Crime UNODC, 2022).

The research by Zafar et al. (2018) stated that majority of individuals are between the ages of 25 and 40 with an estimated 9% of adult males and 2.9% of adult females using drugs though women are significantly underrepresented due to their restricted mobility. Qasim (2017) highlighted that an estimated 3 million Pakistanis aged 15 to 64

use heroin on a regular basis and these numbers increasing dramatically over the years. Khan et al. (2020) experimentally demonstrate that ungoverned and widespread availability of cocaine, heroin, hashish, opium, cannabis and methamphetamine puts at risk national health, compromises societal structures, diminishes youth potential, and places significant strains on healthcare and law enforcement systems.

Emotional regulation (ER) plays a crucial role in mental health as it helps individuals to manage their emotional responses while maintaining psychological balance. In a meta-analysis of 114 studies, Aldao et al. (2010) discovered that maladaptive emotion regulation strategies such as reflection, avoidance, and suppression are associated with psychopathology whereas adaptive methods like adoption, reappraisal and problem-solving correlate with positive effects and lowered distress.

The World Health Organization (WHO) defines quality of life (QOL) as a multifaceted notion that includes physical health, psychological well-being, social interactions and environmental factors. Addiction has a negative impact on all of these aspects. Yen et al. (2010) found that heroin users had significantly poorer QOL in physical, psychological and social areas than non-users proving that addiction impairs functioning across various life domains.

Cognitive reappraisal has repeatedly been associated to enhanced quality of life, emotional resilience by reducing psychopathology (Gross & John, 2003). On the other hand, Butler et al. (2003) demonstrated in his study relying on expressive suppression not only affects cardiovascular and sympathetic nervous system but suppression activity also disturbs interpersonal interactions and self-perception.

Drug users struggle to regulate emotional regulation owing to persistent emotional dysregulation which impairs decision-making increases impulsivity and reinforces maladaptive behavior patterns (Johnston et al., 2014). In order to promote rehabilitation and better life outcomes therapies should integrate that focus on emotional skill sets are desperately needed as proven by the cyclical relationship between low Emotional regulation and poor QOL (Manju & Basavarejappa, 2016).

Rationale of Study

Despite significant research on emotional regulation (ER) and quality of life (QOL) among substance user in Pakistan, few studies have separately examined this broad viewpoint, However, this study has seen Emotional regulation as a one-dimensional term with little exploration into how Emotional regulation strategies like cognitive reappraisal and suppression relate to different components of QOL. The current study fills this gap by addressing hidden connection among different Emotional regulation techniques and its multifaceted nature of QOL as defined by the WHO framework.

Objectives

- To study the relationship between emotional regulation and quality of life among substance users.
- To study the role of gender in emotion regulation and quality of life among substance users.

Hypotheses

H1: It would be hypothesized that there would be a significant relationship between emotional regulation and quality of life among substance users.

H2: It would be hypothesized that gender played a significant role in emotional regulation and quality of life among substance users.

Method

Research Design

The present research was quantitative in nature, correlational survey research design was applied in this research.

Participants

A total of 250 participants were engaged in this study from the 11 rehabilitation centers across 5 cities.

Inclusion and Exclusion Criteria

The current study included adults (male, female) aged 18 to 39 (*M*=29.24, *SD*=5.84) who had been diagnosed with a substance use disorder based on DSM-5TR criteria and who were admitted for treatments at rehabilitation facilities. Any respondent who showed any other documented psychiatric illness and medical problem was excluded from this study.

Sampling Technique

The technique was used to drawing the sample purposive convenient sampling applied in this research.

Instruments

Demographic Sheet

A self-created demographic questionnaire was used to gather personal information from study participants, including gender, age, education level, family system, and marital status.

Emotional Regulation Scale

Gross and John (2003) 10 items scale divided into 2 subscale cognitive Reappraisal include 6 item and expressive repression include 4 items translated into Urdu by Butt et al. (2015) was executed on study participants. 7-point Likert scale stances varied from strongly disagree to strongly agree. Internal consistency of ER scale was (α=.77) and test-retest reliability of scale (r =.69).

WHO - Quality of Life-BREF Scale

Substance users' quality of life was assessed using the WHOQOL-BREF Urdu version (Khalid and Kausar, 2008). It is a self report measure consisting of 26-item. 5 point Likert scale very from strongly disagree (1) to strongly agree (5) with four subscales; physical functioning consist of 7 items, psychological functioning consist of 6 items, social interactions consist of 3 items, and environmental factors consist of 8 items. Two items on this scale 1 and 2 assess a person's impression of quality of life and overall health state. The WHOQOL-BREF consists of three reverse-scored items; 3, 4, and 26. A high score on this scale indicates a great quality of life, whereas a low score indicates poor health functioning. WHOQOL-BREF's alpha reliability coefficient was α =.88 (Khalid & Kausar, 2008).

Ethical Considerations

This study received formal approval from the Institutional Review Board of the Department of Psychology at Hazara University in Mansehra. The current study adhered to the American Psychological Association's ethical rules for data collection.

Data Analyses

This study data was analyzed by using SPSS IBM Version 22 alpha and descriptive statistics (mean, standard deviation, and skewness) were used to assess data distribution. Correlation analysis was utilized to determine the variables' relationships. Pearson correlation, independent samples t-test and regression analysis across demographic characteristics such as gender, family drug history, marital status, socio economic status and history of relapse.

Table 1

Characteristics of the Participants (N =250)

Demographic Variable	*f*	%	Demographic Variable	*f*	%
Age			**Family system**		
18-30	189	74.8	Nuclear	153	61.2
31- 39	61	24.4	Joint	97	38.8
City (Data from No. of Rehab)			**Eco Status**		
Multan	55	22.0	Lower Class	50	20.0
Lahore	60	24.0	Middle Class	135	54.0
Islamabad	75	30.0	Upper Class	65	26.0
Peshawar	40	16.0	**Family History of Addiction**		
Sialkot	20	8.0	Yes	128	51.2
Marital Status			No	122	48.8
Married	46	18.4	**Relapses**		
Single	121	48.4	Yes	141	56.4
Divorced	83	33.2	No	109	43.6

Table 1 reflects the research demographic variables' mean, standard deviation, and frequencies. Mean and standard ages were 74.8 and 24.4, respectively. Representation of various drug types with a majority of middle-class and joint-family comprise the sample's characteristics. The majority of individuals had an addiction-related family history. Half of the individuals had previous treatment, and the other half were receiving treatment for the first time.

Table 2

Correlation between Emotion Regulation and General Health (GH), Physical Health (PH), Psychological Health (PsyH), Social Relation (SR), Environment (EF) and Quality of Life Questionnaire (N = 250)

S. No	Scales	I	II	III	IV	V	VI	VII	VIII	*M*	*SD*
I	CR	-	.01	.02	.21**	.13*	.08	.14*	.19**	25.18	7.46
II	ES	-	-	-.00	-.13*	-.10	-.02	-.27*	-.20**	15.97	5.22
III	GH	-	-	-	.09	.23**	.09	.17*	.35***	5.86	1.79
IV	PH	-	-	-	-	.31***	.31***	.39***	.72***	19.74	4.48
V	PSYH	-	-	-	-	-	.23**	.37***	.68***	17.94	3.87
VI	SR	-	-	-	-	-	-	.40***	.58***	8.93	2.53
VII	E	-	-	-	-	-	-	-	.78***	23.05	4.77
VIII	QOL	-	-	-	-	-	-	-	-	75.43	11.77

Note. CR = Cognitive Reprisal; ES = Expressive Suppression; GH = General Health; PH = Physical Health; PSYH = Psychological Health; SR= Social Relation; E = Environment; QOL= Quality of life.
*p<.05; **p<.01; ***p<.001.

The result of Table 2 indicates Cognitive reappraisal has a substantial positive correlation with overall all the domain of quality of life. Finding also shows that Expressive suppression has significant negatively correlate to environment, psychological & physical health, but not to quality of life and social relationships.

Table 3

Regression Analysis Predicting Quality of Life from Cognitive Reappraisal and Expressive Suppression (N=250)

Predictor	***R***	***R²***	***B***	***B***	***F***	***SE***
CR	.19	.04	.29	.19	9.26**	.09
ES	.20	.04	-.45	-.20	10.41***	.14

Note. CR=Cognitive Reappraisal, Expressive Suppression, *B* =Unstandardized Coefficient, R^2 (Explained variance)

Table 3 demonstrates that Cognitive Reappraisal is a significant predictor are Quality of Life Causing 3.6 % variation in the dependent variable (F = 9.26, 1, t (249); p = .00). The Result indicates that cognitive Reappraisal significantly increases the quality of life. The finding also demonstrates that Expressive Suppression is a significant predictor of Quality of Life causing a 4 % variation in the dependent variable (F = 10.41, 1, t (249); p = .00). Result indicates that Expressive Suppression is significantly decreasing quality of life of drug abuser male and female.

Table 4

Mean differences across Gender on Cognitive Reappraisal, Expressive Suppression & Quality of Life (N = 250)

Variable	**Male (*n* = 150)**		**Female (*n* = 101)**				**95%CI**		**Cohen's*D***
	M	***SD***	***M***	***SD***	***t*(249)**	***P***	***LL***	***UL***	
CR	24.41	7.17	26.33	7.77	-2.0	.00	-3.80	-.03	.19
ES	17.26	4.82	14.04	5.23	5.01	<.001	1.95	4.49	.86
QOL	71.56	8.56	81.24	13.46	-6.94	<.001	-12.42	-6.93	.70

Note. CR = Cognitive Reappraisal; ES = Expression Suppression; QOL = Quality of Life

Table 4 shows gender variations in cognitive, expressive, and quality of life. The table shows substantial mean differences between genders in CR and QOL, except ES. Female substance users scored better on CR (M = 26.33; p<.00) than male substance users (M = 24.41; p<.00). Males scored significantly higher on Expressive Suppression (M = 17.26; p <.00) than females (M = 14.04; p <.00). Females scored higher on quality of life than males.

Table 5

Mean Differences across Marital Status on Cognitive Reappraisal, Expressive Suppression & Quality of Life (N = 250)

	Married (*n* = 46)		Unmarried (*n* = 121)		Divorced (*n* = 83)					95% CI	
Scale	***M***	***SD***	***M***	***SD***	***M***	***SD***	***F***	**i-j**	**SE**	**LL**	**UL**
CR	23.10	7.08	26.09	7.34	25.00	7.67	2.73[t]	2>3>1	.47	24.25	26.10
ES	16.93	5.97	15.79	4.77	15.71	5.41	.954	1>2>3	.33	15.32	16.62
QOL	71.71	9.68	76.87	13.18	75.38	10.19	3.26[*]	2>3>1	.744	73.96	76.89

Note. CR= Cognitive Reappraisal; ES= Expressive Suppression; QOL=Quality of Life

The Table 5 shows significant changes in Cognitive Reappraisal and Expressive Suppression across marital status, except quality of life amongst married couples. Married substance users had higher scores on Cognitive Reappraisal (M = 61.42; p<.00) and Expressive Suppression (M = 61.42; p<.00) compared to unmarried individuals' quality of life (M = 61.42; p<.00). Married individuals have higher rates of CR and ES than single individuals.

Table 6

Mean Differences across Social Status on Cognitive Reappraisal, Expressive Suppression & Quality of Life Scale (N = 250)

	Lower Class (*n* = 50)		Middle Class (*n* = 135)		Upper Class (*n* = 65)					95% CI	
Scale	***M***	***SD***	***M***	***SD***	***M***	***SD***	***F***	**i-j**	**SE**	**LL**	**UL**
CR	25.96	7.50	26.18	7.20	22.49	7.41	5.93[**]	2>1>3	.47	24.25	26.10
ES	14.36	5.18	15.78	5.05	17.61	5.24	5.89[**]	3>2>1	.33	15.32	16.62
QOL	76.92	13.41	75.77	11.79	73.58	10.23	1.25	1>2>3	.74	73.96	76.89

Note. CR= Cognitive Reappraisal; ES= Expressive Suppression; QOL=Quality of Life

Table 6 shows substantial mean differences between CR and QOL, except ES. Female substance users scored better on CR (M = 26.33; p<.00) than male substance users (M = 24.41; p<.00). Males scored significantly higher on Expressive Suppression (M = 17.26; p <.00) than females (M = 14.04; p <.00). Females scored higher on quality of life than males.

Discussion

This study examined effects of emotional regulation strategies and quality of life among substance abusers using SPSS 20 (Statistical software for social sciences). Pearson Product Moment Correlation was used to assess the relationship between emotional regulation and quality of life. The impact of cognitive reappraisal and expressive suppression on quality of life (physical, psychological, and social) was investigated. First, it was hypothesized that emotional regulation has a significant correlation with QOL. According to Agha et al. (2008) inadequate behaviors within an addict's family have a negative impact on

physical, psychological and social health. Study shows that people who have trouble controlling their emotions have more active addiction potential (Stellern et al., 2022). Persons who have problems controlling their emotions might use substances as a maladaptive coping mechanism which could eventually end up in more serious addictions (Poon et al., 2015). Shahzadi et al. (2023) found that Emotional regulation challenges are associated with higher addiction prevalence among teenagers.

Mustafa (2019) emphasized that poly drug users experience significantly higher emotional dysregulation. Expressive repression has been demonstrated to have a negative impact on overall quality of life and it has a negative impact on both psychological and led to increased physiological arousal (Gross, 2015).

Cognitive reappraisal improves psychological wellbeing of addicts. Research suggests that turning unpleasant life events and stressors into good ones can improve the psychological well-being of addicts (Aldao et al., 2010).

The current study lends support to the theory of Reappraisal to improve social and cognitive functioning by reducing negative emotions. Literature also suggests reassessment improving environmental and psychophysiological health is beneficial.

Limitations and Suggestions

The entire study sample was acquired using self-report measures. Participants had to ask the survey questions verbally since they were either ignorant or did not want to read and answer them themselves. The study's conclusions necessitate further exploration, such as experiments, and experimental research should be prioritized wherever possible. Observer reports should also be collected and compared to self-reports to ensure that the data is correct and not manipulated. Future research should target a more varied and gender-neutral population. Because of the limited resources and methodology used, street addicts and transgender people were omitted from this study.

Implications

This study emphasizes emotional dysregulation as a key psychological issue in addiction and suggests awareness initiatives that highlight emotional management strategies, improve the user's quality of life and reduce relapse. This study's findings can be used for further discovered cultural barriers to manage drug addiction within gender under rehabilitation plans tailored to promote healthy and adaptive emotion management specifically for females. Policymakers should introduce emotional health modules in national drug rehabilitation programs.

Ethics Statement

All the ethical standards of APA were met. Informed consent was taken in written form from all the respondents to participate in this study.

Contribution of Authors

Shaista Almas: Conceptualization, Investigation, Methodology, Data Curation, Formal Analysis, Writing – Original Draft

Sher Dil: Methodology, Formal Analysis, Writing - Reviewing & Editing

Farah Kanwal: Writing - Reviewing & Editing

Conflict of Interest

There is no conflict of interest declared by the authors.

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Data Availability Statement

The datasets of the current study are not available publicly due to ethical reasons but are available from the corresponding author [S.A.] upon the reasonable request.

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