



## Perceived Social Support as a Moderator between Defense Mechanisms and Quality of Life in Persons with Substance Use Disorders

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### Abstract

The goal of the present research was to examine the relationship between perceived social support, defense mechanisms, and quality of life of people with substance use disorders. A purposive sampling procedure was used to pick 250 participants from different drug rehabilitation centers in Faisalabad. Response was collected through the use of the Defense Style Questionnaire, Multidimensional Scale for Perceived Social Support and Quality of Life Questionnaire and analyzed using SPSS software. Results showed that both perceived levels of S S and the use of mature defensive mechanisms were significantly positively related to quality of life. On the other hand, immature defense mechanisms were identified as being tremendously negatively correlated. Moreover, there was a significant negative association with immature defensive styles and a meaningful positive association with mature and neurotic defense styles with regard to perceived social support. It is of critical importance that it was revealed that in individuals with a substance use disorder, social support significantly mediated the relationship between both mature and immature defense systems with quality of life. These discoveries are incredibly useful for researchers and mental health practitioners alike contributing to the existing literature shaping theory development and psychotherapeutic and counseling practices.

**Keywords:** Defense Mechanisms, Social Support, Substance Use, Quality of Life

### Introduction

Substance Use Disorders (SUDs) are one of the most common and incapacitating diagnosable mental health problems in the world and have a chronic, relapsing course of compulsive substance

use in the presence of adverse consequences. The World Health Organization (2022) reports that the health and social dimensions of SUDs are increasingly costly, and that they severely reduce the functioning of the physical, psychological, and social life of affected individuals. The decreased quality of life (QoL), or people's self-perception of their independent, social, psychological and physical condition, is one of the most important aspects of this impairment (WHOQOL Group, 1998). Promoting QoL therefore became a fundamental objective of addiction treatment/recovery framework (Laudet, 2011). Management of SUDs' discomforts and hence the maintenance of psychohomeostasis is greatly determined by his defense mechanisms which are unconscious psychological responses adopted to resolve internal struggles and external pressures (Vaillant, 1992). These include both mature defenses which include sublimation and humor, and immature ones, such as denial and projection. Experimental studies have demonstrated that people diagnosed with SUDs tend to employ immature, or neurotic, defenses, linked to poorer emotional-regulation functioning, greater psychiatric comorbidities, and poorer quality of life (Evren et al., 2012; Bond, 2004). Such defense styles maladaptive tendency may facilitate substance use, obstruction of healing and increase psychosocial disorganization.

However, in the case of addiction and recovery from mental disorders, perceived social support in the form of the person's subjective assessment of the extent and quality of emotional, informational and instrumental support from his/her social network has been found to be quite important protective factor (Cohen & Wills, 1985; Laudet et al., 2004). Perceived support at higher levels is associated with effective coping mechanisms, change orientation, and improved outcomes for treatment. Furthermore social support has been exposed to reduce the effects of stress, enhance psychological resilience and increase positive facilitation to life satisfaction and well-being (Taylor, 2011). Although there is much established mechanics behind both defense mechanisms and perceived social support for use of substances and recovery outcomes, the interaction between these factors for determining quality of life is under researched. We can reasonably assume that PSS could play a role of moderator in the relationship between defenses and QoL, i.e., can moderate the negative effects of maladaptive defenses by being a buffer for them. For example, individuals who resort to immature defenses are less likely to suffer from psychological distress and can continue to lead a good life if they feel good emotional and social support from other people. On the other hand, the lack of such support would augment the negative impact of maladaptive defense mechanisms and continue an impairment of QoL.

Social support is thought to help buffer against the deleterious effects of psychological stressors (e.g., ineffective coping strategies) on health and well-being (stress-buffering hypothesis; Cohen & Wills, 1985), and this is useful theoretical underpinning for this view. This framework has been exploited on many occasions in health psychology but it remains untested in the realm of defense mechanisms and QoL for individuals with SUDs. Considering these gaps, the present research attempts to explore the moderating role of PSS between defense mechanisms and quality of life in individuals with SUDs. Such insight can teach us of a more subtle and person-oriented kind of therapeutic interventions, where both internal psychological patterns and the external milieu of the client's social environment become part of the plan for treatment. Precisely, this research seeks to investigate this question: can the maladaptive defense mechanisms' negative impact on QoL be alleviated by high levels of perceived social support; hence, contributing to the development of integrative psychosocial interventions.

## **Hypotheses**

1. There will be a significant association between defense mechanisms, perceived social support, and quality of life among persons with substance use disorders.
2. Perceived social support would moderate between defense mechanisms and quality of life in persons with substance use disorders.

## **Methodology**

### **Research Design**

A cross-sectional correlational research strategy was used in this study to investigate the relationship between the variables under investigation.

### **Sample & Sample Strategy**

A sample of 250 persons was selected through the purposive sampling strategy from several drug rehabilitation centers in Faisalabad city.

### **Inclusion and Exclusion Criteria**

The male individuals diagnosed with substance use disorders, with an age range of 18 to 65 years were included in this research. The females, physically and mentally challenged and the individuals aged below 18 years and above the 65 years were excluded from study.

### **Research Tools**

The research tools used in this study are given below;

#### ***Demographic Form***

A demographic form was prepared by the researcher to collect the basic information about research participants, such as age, family system, marital status and types of substance use etc.

#### ***Perceived Social Support Scale***

The Multidimensional Scale for Perceived Social Support (MSPSS) developed by Zimet et al. was developed in 1988. This widely used psychological instrument was developed to measure how people felt towards three variety of social support. Friends, family, and a major other. The thirteen items in the scale are equally divided up between the three subscales (four items in each subscale). In this research, the Urdu-translated version of the MSPSS was used showing high internal consistency. The Cronbach's alpha value of 0.93 approximates the internal consistency (Akhtar et al., 2010).

#### ***Quality Of Life Questionnaire***

A team of world experts developed the WHO Quality of Life Questionnaire (WHOQOL) under the guidance of the World Health Organization (WHO) and was first published in 1995. It assesses answers in diverse areas including, environment, social interaction, psychological well-being and physical health via the Likert-type response format, most commonly, 1 to 5. The most widely used version: WHOQOL-BREF has 26 elements which were extracted from the longer version originally. With Cronbach's alpha coefficients usually lying between 0.70 and 0.90 for all of its areas the questionnaire has shown itself to be very reliable. An Urdu version of the WHOQOL-BREF by Lodhi et al. (2017) was used in the current investigation.

#### ***Defense Style Questionnaire***

The Defense Style Questionnaire- 40 was developed by Andrew Bond, Graeme Gardner et al., and

was published in its 40-item form for the first time in 1994 as a revision of earlier versions of the instrument. It is an instrument designed to measure the tendency for people to use psychological defense mechanisms in their habitual pattern of functioning which are unconscious attempts to cope with stress and the tension of conflicting emotions. < The DSQ-40 has forty self report items that are rated on a nine point likert scale; the scale has the highest score of 1 being “strongly disagree” to the highest score of 9 being “strongly agree”. The items are divided into three defense style types, mature, neurotic, and immature. With Cronbach’s alpha values ranging generally from 0.68 to 0.80 depending on subscale Cronbach’s alpha values has created acceptable to good internal consistency, and as such, the questionnaire has become a popular set of measures to explore personality and coping processes in clinical and research settings (Ruuttu et al., 2006). A translation of DSQ-40 in to Urdu was used for this study (Rizvi & Batool, 2023).

## Procedure

First, the issue was allowed by the department research committee, and authorizations were acquired from the questionnaires’ authors. The data obtained from research participates used the previously indicated questionnaires. Participants acknowledged and signed an informed consent form and the researcher followed all ethical standards in order to keep their privacy and confidentiality. The data was then analyzed using the Statistical Package for the Social Sciences (SPSS) computer package. The descriptive statistics that were employed include frequency, percentages, mean and standard deviation. Inferential statistics incorporated correlation and Hierarchical Regression Analysis (for moderation analysis in order to test the study hypotheses. The researcher made his conclusions and suggestions based on the outcome drawn.

## Results

**Table 1** *Demographic Variables' Frequencies and Percentages (N=250)*

Variables	N	%	M (SD)
Age			25.37 (4.19)
Family System			
Nuclear	93	37.2%	
Joint	157	62.8%	
Marital Status			
Single	98	39.2%	
Married	128	51.2%	
Divorced	12	4.8%	
Separated	12	4.8%	
Types of Substance			
Cannabis	88	35.2%	
Opioids	19	7.6%	
Stimulants	117	46.8%	
Alcohol	26	10.4%	

Table 1 shows the frequency and percentage allocation of demographic data. The standard deviation was 4.19, and the mean age was 25.37. Only 250 (100%) male patients with substance use problems were included in this study. Of the participants in the study, 157 (62.8%) belonged to the joint family and 93 (37.2%) to the nuclear family system. Additionally, the participants were

divided according to their marital status: 120 (51.2%) were married, 12 (4.8%) were divorced, 98 (39.2%) were unmarried and 12 (4.8%) were separated. On the other hand, a range of substances were taken by the individuals, including 88 (35.2%) cannabis, 117 (46.8%) stimulants, 19 (7.6%) opioids, and 26 (10.4%) alcohol.

**Table 2** *Cronbach's Alpha Values for the Scales (N=250)*

Scales	Items	Cronbach's Alpha ( $\alpha$ )
DSQ	40	.90
MSPSS	12	.91
WHOQOL	26	.93

Table 2 displays the Cronbach's alpha values for the study questionnaires, indicating a high level of internal consistency. Cronbach's alpha for the Defense Style Questionnaire (DSQ), Multidimensional Scale of Perceived Social Support (MSPSS), and Quality of Life Questionnaire (WHOQOL) is 0.90, 0.91, and 0.93, respectively. The high Cronbach's alpha ratings for all measures demonstrate the data's great reliability, which is highlighted by these individual values.

**Table 3** *Correlation between Perceived Social Support, Defense Mechanisms, and Quality Of Life (N=250)*

Variables	QoL	PSP	MS	NS	IS
QoL	--	.366**	.252**	-.091	-.490**
PSS		--	.454**	.173**	-.271**
MS			--	.485**	-.003
NS				--	.576**
IS					--

*Note.* QoL= Quality Of Life, PSP= Perceived Social Support, MS= Mature Style, NS= Neurotic Style, IS= Immature Style, \*\* $p < 0.01$

According to Table 3, in the sample of 250 participants, quality of life is significantly positively correlated with perceived social support ( $r=.366^{**}$ ,  $p<0.01$ ) and mature style of defense mechanism ( $r=.252^{**}$ ,  $p<0.01$ ), but significantly negatively associated with immature style ( $r=-.490^{**}$ ,  $p<0.01$ ) and not significantly correlated with neurotic style of defense mechanism. On the other hand, there is a significant positive association with Mature Style ( $r=.454^{**}$ ,  $p<0.01$ ) and Neurotic Style of defense mechanism ( $r=.173^{**}$ ,  $p<0.01$ ), but a significant negative correlation with Immature Style of defense mechanism ( $r=-.271^{**}$ ,  $p<0.01$ ). Additionally, there is no correlation between the Mature Style and Immature Style defense mechanisms, but there is a substantial positive correlation between the Mature Style and the Neurotic Style ( $r=.485^{**}$ ,  $p<0.01$ ). Additionally, there is a substantial positive relationship between the Neurotic Style of

defense mechanism and the Immature Style of defense mechanism ( $r=.576^{**}$ ,  $p<0.01$ ).

**Table 4** Hierarchical Regression Analysis Examining the Moderating Effect of Social Support on the Relationship between Defense Mechanisms (Mature, Neurotic, And Immature) and Quality Of Life ( $N = 250$ )

Variables	R <sup>2</sup>	F	Quality of Life		
			B	B	95% CI
Step 1	0.07	8.84**			
Control Variables*					
Age			-6.25	-0.15*	-11.29, 1.22
Education			2.60	0.20**	1.03, 4.17
Step 2	0.19	19.12**			
Social Support			0.43	0.35**	0.29, 0.56
Step 3	0.33	20.25**			
Mature			.25	.15*	0.03, 0.48
Neurotic			.12	.07	-0.15, 0.39
Immature			-.22	-.42**	-0.29, -0.14
Step 4	0.38	16.23**			
Mature _X_ Social Support			0.01	.51*	0.00, 0.02
Neurotic _X_ Social Support			0.01	.40	-0.00, 0.02
Immature _X_ Social Support			-0.01	-.57*	-0.01, 0.00

Note. B = Unstandardized Coefficient estimates;  $\beta$  = Standardized Coefficient estimates, \* $p<.05$ ; \*\* $p<.01$

The results indicate that after controlling for demographic variables (age and education) in Step 1, adding social support as a moderator in Step 2, including defense mechanisms (mature, neurotic, and immature) in Step 3, and entering interaction terms between the predictors and the moderator in Step 4, the overall model explained 37.9% of the variance in quality of life,  $F(9, 240) = 16.23$ ,  $p < .01$ . In Step 1, age was a significant negative predictor, while education was a significant positive predictor of QoL. In Step 2, perceived social support emerged as a significant predictor and moderator. In Step 3, mature defense mechanisms positively predicted quality of life, whereas immature defense mechanisms had a negative effect. In Step 4, the interaction terms between social support and the mature and immature defensive systems were statistically significant. These studies show that perceived social support moderates the association between quality of life and mature and immature defensive systems in individuals with substance use disorders.

## Discussion

The current study sought to investigate how people with substance use disorders' defensive mechanisms, perceived social support, and quality of life relate to one another. In order to test the relationship between the study variables, correlational research design was used. A purposive sample of 250 people was drawn from a number of recovery facilities from drug abuse in Faisalabad. Data were collected using Multidimensional Scale for Perceived Social Support, Defense Style Questionnaire, Quality of Life Questionnaire and a demographic form. The data were analyzed and hypotheses tested using the Statistical Package for the Social Sciences (SPSS) software. The mean and standard deviation of age as well as the frequencies and percentages of

other demographic variable were first obtained through the use of descriptive statistics. The research tools' internal consistency was later established using the reliability analysis. The 40-item DSQ scored a Cronbach's alpha of 0.90. With 12 questions divided into three subscales (mature, neurotic, and immature styles), the MSPSS has an alpha of 0.91. With 26 items, the QLQ had a Cronbach's alpha of 0.93. Strong dependability across all measurements is indicated by these high alpha values. Lastly, the study's hypotheses were tested using inferential statistics, such as hierarchical regression analysis and correlation.

The 1st hypothesis of this research stated that “there would be a significant relationship between defense mechanisms, perceived social support, and quality of life among individuals with substance use disorders.” The relationships between the research variables are shown in Table 3. According to the findings, Quality of Life has a significant negative relationship with the Immature defense mechanism style ( $r = -.490^{**}$ ,  $p < .01$ ) and a significant positive correlation with PSS ( $r = .366^{**}$ ,  $p < .01$ ) and the Mature defense mechanism style ( $r = .252^{**}$ ,  $p < .01$ ). The neurotic defensive style and quality of life did not significantly correlate. Furthermore, Perceived Social Support exhibited a strong negative association with the Immature defense style ( $r = -.271^{**}$ ,  $p < .01$ ) and a substantial positive correlation with the Mature ( $r = .454^{**}$ ,  $p < .01$ ) and Neurotic ( $r = .173^{**}$ ,  $p < .01$ ) defense styles. The Mature defense style did not exhibit any significant link with the Immature style, but it did have a strong positive correlation with the Neurotic style ( $r = .485^{**}$ ,  $p < .01$ ). Meanwhile, the Neurotic and Immature defense styles were significantly positively correlated ( $r = .576^{**}$ ,  $p < .01$ ). Based on these findings, the first hypothesis of the study is supported. These findings agree with earlier studies incl., the study by Birkeland et al. (2017) who found that the Quality of Life was positively associated with social support and family cohesion among people in treatment for substance use disorders. Similarly, Chudary et al. (2022) research revealed that reported social support also saw the following implications – significant reduction of suicidal ideation and improvement of positive outcomes regarding Quality of Life among persons with substance use disorders.

Perceived social support is, directly and positively, correlated with quality of life as demonstrated by Panayiotou and Karekla (2013). In the same vein, Vojvodic et al. (2019) found that military personnel who suffer from burnout also reported that those who employed sophisticated (mature) defense mechanisms had significantly higher quality of life, and hence it is possible to infer that adaptive coping strategies were associated with more positive life perceptions. Another study by İskender and Taş (2018) examined how defensive styles and social support predict violent tendencies in adolescents. The findings indicated that aggressive conduct was negatively associated with the mature defensive style, positively connected with the immature style, and not significantly linked with the neurotic style. Additionally, violent tendencies were negatively related to perceived support from family, positively related to support from specific individuals, and not significantly associated with support from friends.

The second hypothesis of this research proposed that “perceived social support would moderate the relationship between defense mechanisms and quality of life among persons with substance use disorders.” As shown in Table 5, a hierarchical regression analysis was conducted in four steps. In Step 1, demographic variables (age and education) were controlled, with age emerging as a negative and education as a positive predictor of QoL. In Step 2, PSS was added and found to be a noteworthy predictor of quality of life. Step 3 included defense mechanisms (mature, neurotic,

and immature), where mature defenses positively and immature defenses negatively predicted quality of life. Finally, in Step 4, the interaction terms between defense mechanisms and social support were entered. The interactions between social support and both mature and immature defense mechanisms were statistically significant. 37.9% of the variation in quality of life was explained by the overall model ( $F(9,240) = 16.23, p < .01$ ). These results validate that in citizens with drug use disorders, the link between quality of life and mature and immature defense systems is moderated by perceived social support.

## Conclusion

According to the current study's findings, Quality of Life was considerably inversely connected with immature defensive mechanisms and significantly positively associated with perceived social support and the employment of mature defense mechanisms. Furthermore, it was discovered that PSS had a negative correlation with immature defensive styles and a substantial positive relationship with both mature and neurotic defense styles. Additionally, the results showed that among people with drug use disorders, social support moderated the association between defense mechanisms (both mature and immature) and quality of life.

## Implications of the Study

The findings of this study can assist researchers, professionals, and psychologists in bridging existing gaps in the literature, contributing to the development of new theoretical frameworks and psychotherapeutic approaches, and enhancing counseling practices for both individuals with substance use disorders and the wider population.

## Limitations and Suggestions

The researcher acknowledged several limitations in this study. Due to time constraints and the absence of financial support, data collection was limited to male rehabilitation centers within Faisalabad city. Additionally, only participants aged between 18 to 65 years were included. These factors restrict the generalizability and applicability of the study's findings. It is suggested that future research be conducted over a longer duration and with adequate financial resources to enhance the study's effectiveness and relevance. Including female participants, expanding the sample to other regions or provinces, and involving individuals younger than 18 and older than 65 years would further improve the generalizability and usefulness of future research outcomes.

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