



Self-Control, Self-Efficacy and Resilience Among Patients with  
Substance Use Disorder

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Abstract

Substance use disorder is one of the overarching health and social issues that might seriously disrupt individuals' self-control, self-efficacy and resilience. The purpose of this study is to investigate how resilience mediates the relationships between self-control and self-efficacy among patients with opioid addicted and this study is to identify knowledge about self-efficacy, and perceived behavioral control associated with heroin and/or substance usage pattern among heroin addicted. Research was carried out at District head quarter (DHQ) and rehabilitation centers. Faisalabad, Pakistan. Duration of this study was Eight months from July 01, 2021 to February 28, 2022. Correlational study of 200 patients with substance use disorder (Heroin) in Faisalabad Pakistan. Diagnostic and Statistical Manual of Mental Disorders (5th Edition)-based diagnostic questionnaires were used to collect demographic information and assess addiction severity. The Brief Self-Control Scale (BSCS-13), General self-efficacy scale (GSE-10) And Connor-Davidson Resilience Scale (CD-RISC-10) was used. After data collection descriptive and inferential statistics was used to collect the results. And results concluded that total scores on the self-control, resilience, and self-efficacy were significantly positive. And resilience fully mediated the relationship between self-control and self-efficacy, relationships between self-control and self-esteem were partially mediated by resilience, and resilience partially mediated the relationship between self-control and self-efficacy. Conclusion of this study significantly concluded that self-control through resilience and on to self-efficacy is significant among patients with substance use disorders, suggesting that increasing self-control, resilience, can improve self-efficacy among patients with heroin addicts.

**Keywords:** Brief self-control, general self-efficacy, resilience, substance use disorder, opioid addiction.

## Introduction

Substance use disorders are pervasive around the world to be an unsustainable public health challenge for healthcare institutions. Whereas the Drug addiction disorders is one of the comprehensive and integrated concerns in society that can adversely damage people's self-efficacy and self-control, although most past studies have reported. Research has focused on students of the university or even other communities, and very little is recognized about how actual mechanism of self-efficacy and self-control may affect people with ingredient use disorders (Tran et al., 2019). Also as per mental health Services Administration and Substance Abuse, 8.2 percent of the public matured 12 and more established in the United States satisfied models for substance reliance or maltreatment in the former year. In danger substance use is more common, with an expected 9.4 percent announcing illegal substance use in the earlier month and very nearly a quarter, 22.9 percent, revealing weighty savoring the earlier month. The pernicious intense impacts inebriation, substance use-related injury and savagery, and the repercussions of different clinical and mental sicknesses connected with steady heavy drinker, sedative, and other medication go through all add to a huge weight of illnesses (Yang, Zhou, Cao, Xia, & An, 2019).

Alcohol, cigarettes, opiates and/or illicit drugs are responsible for one out of every four deaths in the United States (Jones, 2013) In 2019, estimated 50,000 deaths occurred in the US as a result of opioid-related drug deaths. Opioid abuse or addiction, which involves prescription medications, opiates, and synthetic opioids such as fentanyl, is a serious nationwide issue which has an adverse effect on human health along with economic and social health. According to the Center of Disease Control and Preventative measures, the total "economic burden" of opioid addiction use in the US is dollar seventy eight point five billion per year, which includes medical costs, productivity loss, treatment programs, and law enforcement cooperation (Florence, Luo, Xu, & Zhou, 2016). The study of (Gene, Vazsonyi, Mikuska, and Kelley 2017) concluded that poor self-control has positive impact on wellbeing and less consumption of drug use among children's as well. In this study data was collected from 332 children's and tested through more advance tests. It is critical that the healthcare system, the Anti-Narcotics Force, the pharmaceutical industry, and the legislature work together. A university-affiliated addiction center should be established to give research and treatment direction. For the treatment of opioid use disorders, buprenorphine-naloxone and injectable naltrexone are urgently needed at the institutional level. In 2013, the United Nations Office on Drugs and Crime (UNODC) published a report, and the present situation is almost certainly even worse than it was before. According to this survey, 8.9 million people used drugs in Pakistan last year, up from 6.7 million the year before.

As a result, 6% of the population was abusing controlled narcotics and prescription medications. Cannabis was the most popular drug, followed by painkillers. The majority of users were between the ages of 25 and 39. All around world, approaching college signifies a period of significant change in these students' lives, and numerous studies indicate that college is a positive experience. Regardless, the college encounter has been linked to depression, heroin and/or other

substance experimentation, and stress (El Ansari, Sebena, & Labeeb, 2015). College students are a frequently studied community; as relayed and logically demonstrated, college students interact in danger behaviors on a routine basis. (Labrie, Shaffer, LaPlante, & Wechsler, 2003; McCabe, West, & Wechsler, 2007; Mohler-Kuo, Lee, & Wechsler, 2003; Van Ree, 2011; Gerrits, & Vanderschuren, 1999). A couple of review have shown that understudies are bound to participate in substance maltreatment than their companions who don't go to class many studies on college student material use are epidemiological in nature, looking for risk factors for use. Researchers are urgently needed to investigate how college students' use of substances may be explained in terms of hypothetical scenarios. Aims of the present study are to investigate the rationalization of Gottfredson and Hirschi's (1990).

Self-control hypothesis over different forms of material use throughout college students after study shows the harm to the customer and the impact on health care that intravenous drug use has had on the law and discipline in addition to the danger it has on people's lives. Due to the high personal and societal costs of substance abuse, it is necessary to investigate the underlying causes of this behaviour. It has emerged that sex is a vital sign of substance use and enslavement, according to review of the variables associated with these issues. Drug use and abuse may be influenced by sex and gender roles, according to research. Thoughts have emerged that men are more likely than women to devour a wide range of illicit substances, which include alcohol, tobacco and marijuana, cocaine and methamphetamine as well as painkillers. When it comes to the use of painkillers and prescription Ritalin, there are no significant differences between the sexes (Jebraeili, Habibi, & Nazemi, 2019).

There are other factors that may arise, such as resilience, which is one of the most significant aspects of heroin and other drug use. Resilience was assumed to be a characteristic of bright minds in previous studies. As a consequence, later research has shown that resilience despite gender difference is not a monopoly of great individuals, and it has been observed in entirely different individuals and at different stages of development. Patients with substance use disorder may have varying levels of self-control and self-efficacy, but less attention has been paid to the possible correlation between these two characteristics in individuals with substance use disorder. This research utilized resilience as ultimate arbiter to help individuals with opioid use disorders analyses the essential principles of self-control and self-efficacy. It has become clear that there are a number of problems that need further investigation (Lockwood, 2002).

Numerous studies have found a link between increased self-efficacy and better health outcomes. An efficient inspection of the impacts of multiple amount of self-efficacy would be useful in determining whether more self-efficacy is always stronger (as some believe) and if there is an optimum amount in terms of the effect on overall result. For this research, the effect of self-efficacy contrasts relying upon which result was estimated. It is therefore important that different outcomes (such as self-control, time to start drinking, recurrence of drinking, and the amount consumed) and distinct terms for evaluating results be considered. In addition, more stringent

meditational testing is required (Mackinnon, Lockwood, Hoffman, West & Sheets, 2002) Several studies have found a strong link between self-efficacy beliefs (also known as limitation self-efficacy) and getting drunk use outcomes in substance use disorders, such as opiates, after a variety of medical conditions. It is well-known that individuals who possess both essential abilities and solid adaptability are more likely to resist high -risk situations for drinking or drug use, as stated by Bandura (1986).

The following is a list of the hypotheses that this research is testing:

1. There are significant relationship between self-efficacy, self-control and resilience among substance use disorder.
2. There are significant gender differences in self-control, self-efficacy, resilience due to substance use disorder.
3. Self-control, self-efficacy and resilience significantly differ in in term of different income groups, in term of different educational level and in term of different rural and urban areas.

### **Methodology**

This correlational study was conducted in Faisalabad, Pakistan. Participants were selected from different rehabilitation centers, hospitals and drug treatment centers. Two hundred persons with substance use (all types of drugs including Depressant and Opioid ) were included in this study. Age range of the participants was between 20 to 60 years. Their minimum education level was matriculation and socioeconomic status was diverse. Participants were diagnosed patients of substance use. Formal permission was taken from drug treatment and rehabilitation centers from where data was collected. After permission participants were approached through respected staff and research purpose was in detail explained to them. Participants were approached through the staff of particular drug treatment center.

### **Instruments**

#### **Brief Self-Control Scale (BSCS)**

The BSCS is a 13-item version of the longer Self Control Scale. The measure is a Likert Scale style questionnaire. Items are scored from 1 (not at all) to 5 (Very much). The total score is calculated from adding the raw scores from each item. Early adolescence, late adolescence, and adults can all be measured.

#### **General Self-Efficacy Scale (GSES)**

The General Self-Efficacy Scale (GSES) is a 10-item psychometric scale The scale was created in German by Matthias Jerusalem and Ralf Schwarzer in 1981. It is typically administered by the participant themselves as part of a larger questionnaire. Ideally, Its 10 goods are randomly combined together into higher proportion of objects that all have almost the same questionnaire instrument rather than being used individually. It takes an average of 4 minutes to complete this task. A 4-point scale is used to evaluate the responses. Make a total of the responses to all ten questions to arrive at a final composite score, which can range from 10 to 40 points. Re-coding is not permitted.

### Connor-Davidson Resilience Scale (CD-RISC-10)

The Connor-Davidson Resilience Scale was developed by two scholars who collaborated on the study, Kathryn M. Conner and Jonathan R.T. Davidson. the 10-item scale is comprised of ten of the first 25 items on the CD-RISC-10 scaling framework. The total score a respondent receives can range from 0 to 40.

### Procedure

SPSS was used to examine the data (23.0). The demographics' frequencies and percentages are calculated. To assess the descriptiveness of all variables, descriptive statistics were used. Cronbach's alphas were used to calculate a reliability analysis to establish the scales' dependability. The link between all of the variables was calculated using bivariate correlation analysis. And t-test was employed to compare the gender-wise sample.

### Results

After screening through the using criteria of Substance Use disorder from DSM-V, 200 patients including male and female with Substance Use Disorder (SUD) were included in this study.

Table 1: Demographic Questionnaire of gender with substance use disorder (N=200)

		f	%
Age 20-60 years			
Gender	Male	163	81.5
	Female	37	18.5
Education	Matric	5	2.5
	Intermediate	36	18.0
	Bachelor's	92	46.0
	Masters	67	33.5
Socio-economic status	High	38	16.0
	Middle	82	41.0
	Low	80	40.0
Area	Rural	80	40.0
	Urban	120	60.0

In table 1 the mean age of the male participants were 42.31 years and standard deviation were 8.95. All the required demographics variables which were included in inclusion and exclusion describes in the table 1. Demographics characteristics of participants showed that patients having

matriculation education level were 2.5%, intermediate 18.0 %, bachelor's 46.0% and master's 33.5%. By socioeconomics, in this study participants belongs to lower socio economics were 40.0 % middle 41.0 % and high belongs to 19.0 %. In the findings of this study, it has been shows that drug addiction is a strong predictor of self-control, self-efficacy and resilience among male patients then females with substance use disorder (SUD) and the p values is (p<000). The results of this study shows that this opioid developed in male patients with Substance Use Disorder.

**Table 2: Summary of Correlation analysis of self-control, self-efficacy and resilience among patients with substance use disorder (N=200)**

Variables	1	2	3
Self-Control	.600**		
Self-Efficacy		.555**	
Resilience			.693**

Table 4 shows that the correlation of all variables in the study. This correlation table shows that self-control, self-efficacy, and resilience are all positively and significantly correlated. The results of the above table show that there is a significant positive relationship between substance use disorder, self-control, and self-efficacy and resilience.

**Table 3: Summary of Comparison between gender (male and female) on self-efficacy, self-control and resilience among patients with substance use disorder (N=200)**

Variables	Male <i>n</i> =100		Female <i>n</i> =100		t	p	95% CI	
	M	SD	M	SD			LL	UL
Self-control	43.0061	8.64991	39.2432	9.71083	2.334	.021	.58393	6.94186
Self-efficacy	30.4908	3.43613	27.7027	4.42760	4.210	.000	1.48216	4.09403
Resilience	34.2393	4.59446	30.8649	4.93380	3.978	.000	1.70165	5.04715

The results of the study of the above table show that there is a statistically significant difference in self-control, self-efficacy, and resilience among females and males due to substance use disorder. It means that males have lower levels of self-control, self-efficacy, and resilience than females.

Table: 5 Summary model of Comparison between Education of respondents on self-efficacy, self-control and resilience among patients with substance use disorder (200)

Variables	M	SD	t	p	95% CI		
					LL	UL	
Self-control	37.6000	5.224	16.091	.000	31.1124	44.087	
Matric	Self-efficacy	32.0000	1.000	71.554	.000	30.758	33.241
	Resilience	37.2000	1.643	50.623	.000	35.159	39.240
	Self-control	37.7222	10.038	22.546	.000	34.325	41.118
Intermediate	Self-efficacy	27.4444	5.315	30.979	.000	25.646	29.242
	Resilience	31.9444	5.534	34.634	.000	30.072	33.816
	Self-control	42.3152	9.115	44.524	.000	40.427	44.203
Bachelor's	Self-efficacy	29.9457	3.414	84.129	.000	29.945	29.238
	Resilience	33.3152	4.925	64.874	.000	32.295	34.335
	Self-control	45.1194	7.121	51.861	.000	43.382	46.856
Master's	Self-efficacy	31.2239	2.592	98.578	.000	30.591	31.856
	Resilience	34.6567	4.08824	69.389	.000	33.6595	35.653

Results indicated the test results of education of respondents toward self-control, self-efficacy and resilience. Test of statistical analysis shows that the respondents who have matric education have more self-control toward substance abuse as compare to other respondents. Whereas the values of tables also show that the respondents of matric group have (M=37.60; P=.000). Moreover, table shows that test of statistical analysis shows that the respondents who have matric education have more self-efficacy toward substance abuse as compare to other respondents. Whereas the values of tables also show that the respondents of matric group have (M=32.00; P=.000). In addition, table indicated that the respondents who have matric education have more resilience toward substance abuse as compare to other respondents. Whereas the values of tables also show that the respondents of matric group have (M=37.200; P=.000).

Table 6: Summary model of Comparison between residence on self-efficacy, self-control and resilience among patients with substance use disorder (200)

	Variables	M	SD	t	p	LL	UL
	Self-control	42.8500	8.53007	44.931	.000	40.9517	44.7483
Rural	Self-efficacy	30.1000	3.55642	75.701	.000	29.3086	30.8914
	Resilience	33.6125	4.51017	66.658	.000	32.6088	34.6162
	Self-control	41.9500	9.23807	49.744	.000	40.2801	43.6199
Urban	Self-efficacy	29.8917	3.94457	83.012	.000	29.1787	30.6047
	Resilience	33.6167	5.04798	72.950	.000	32.7042	34.5291

Table indicated the test results of urban and rural respondents toward self-control, self-efficacy and resilience. Test of statistical analysis shows that the respondents who are belong urban areas

has more self-control and self-efficacy toward substance abuse as compared to rural areas respondents. Whereas, the urban and rural respondents have same resilience.

Table 7: Summary model of Correlation among Demographic and Study Variables among patients with substance use disorder (200)

	Age	Gender	Education	Socioeconomic	Residence	Self-control	Self-efficacy	Resilience
Age	1							
Gender	-.178*	1						
Education	.464**	-.164*	1					
Socioeconomic	-.031	-.292**	-.030	1				
Residence	-.121	.126	.005	-.459**	1			
Self-control	.087	-.164*	.289**	.127	-.049	1		
Self-Efficacy	.157*	-.287**	.263**	-.005	-.027	.600**	1	
Resilience	-.007	-.272**	.126	.040	.000	.555**	.693**	1

Above table shows that there is significant correlation among all demographic and study variables.

### Discussion

To analyze self-control, self-efficacy, and resilience among substance use disorder in the Faisalabad district, this study explored the following basic hypothesis. There are significant gender differences in self-efficacy, self-control and resilience between substance use disorders.

The results demonstrate there is a statistical significance difference between genders self-efficacy, self-control and resilience among substance use disorder. It means males are more, suffering from self-control, self-efficacy and resilience then females. Table also demonstrates that males have high level of self-control, self-efficacy and resilience then females due to substance use disorder. Moreover, the studies of (Connell, Gillreath, Aklin, & Brex, 2010; Moss, Chen, & Yi, 2014; Swahn & Bossarte, 2007) have same findings. There are significant relationship between self-control, self-efficacy, and resilience among substance use disorder.

The findings show that there is statistically significant difference and resilience is negative significant difference in self-control and self-efficacy due to substance use disorder. It means there are high level in self-control among matric or intermediate group and self-efficacy and resilience is higher in matric level then the intermediate level. In past literature the studies of (Merianos, Nabors, Vidourek, & King, 2013; Mathers, Toumbourou, Catalano, Williams, & Patton, 2006; Stein, Newcomb, & Bentler, 1987; Terry-McElrath, O'Malley, & Johnston, 2009) also proved same results. The study of Gene et al., (2017) concluded that poor self-control has positive impact on wellbeing and less consumption of drug use among children's as well. In this study data was



collected from 332 children's and tested through more advance tests Self-control, self-efficacy and resilience significantly differ in use of substance use disorder in term of different income groups, in term of different educational level and in term of different rural and urban areas. The findings show that there is insignificant disparity between cities and suburbs among self-control, self-efficacy and resilience among substance use disorder. It means in there are minor difference both areas. In addition, the studies of (Weichold, Wiesner, & Silbereisen, 2014; Yaung et al., 2019) have same findings.

### Conclusion

It has been concluded that there are certain reasons of opioid addiction and reported among people having self-control, self-efficacy and resilience due to substance use disorder. Among those factors, few are explained above which includes low self-esteem, discrimination in order to social opportunities, anger and embarrassment due to the general attitude of society. Furthermore, some other reasons are also important like perceiving addicts as criminals, rejection and discriminating behaviors by society and employment issues, guilt and shame are some important reasons leading to substance use disorder.

### Limitations And Recommendations

Some limitations of this study have been highlighted. First, this study was conducted with male and female participants even though a large numbers of females are also misusing substances these days. Second, only age group between 20-60 years was included in this study. Third limitation of this research is that we collected data only from Faisalabad and expanding it to other major cities of Pakistan will provide a broader picture.

### Conflict of Interest / Disclosure

None.

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