



## RESEARCH PAPER

### Personality Traits as Predictors of Self-Esteem and Death Anxiety among Drug Addicts

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#### ABSTRACT

This study seeks to investigate whether personality traits predict self-esteem and death anxiety among drug addicts. The sample consisted of 100 drug addicts taken from the two hospitals in Multan city. Only men between the ages of 20 and 65 were included in the study. Data was collected through reliable and valid questionnaires. Results revealed positive relationship between conscientiousness, openness to experience and self-esteem. Moreover, findings showed positive relationship between extraversion and death anxiety, and negative correlation between neuroticism and death anxiety. Findings also showed that self-esteem and death anxiety are significantly and negatively correlated. Additionally, findings revealed that conscientiousness positively predicted self-esteem and neuroticism negatively predicted death anxiety. Furthermore, significant differences were observed in self-esteem, and death anxiety based on age. Significant differences were also found in extraversion, agreeableness, openness to experience, and death anxiety based on location. Understanding how personality traits affect behavior can help drug addicts get the support they need to live a better life and reduce their risk of death anxiety and premature death.

#### Introduction

The use of some substances to produce euphoric effects on the brain is referred to as drug abuse (Mandal, 2021). Drug use is linked to negative health and societal consequences. Around the world, over 190 million individuals use drugs, and the problem is becoming worse. A National Survey conducted in 2017 on Drug Use and Health in America reported that 19.7 million Americans (aged 12 and up) had a habit of drug abuse. More than 74 percent people who had a substance abuse problem also had an addiction to alcohol in the same year. Over 38% of adults are habitually addicted. In addition, Alcohol and drug addiction affected one out of every eight adults in the United States (Substance Abuse and Mental Health Services Administration, 2018).

In Pakistan, it is clear that use of illicit drugs is one of the most serious social issues, affecting a large segment of the population. Drug usage affects a significant fraction of

Pakistan's population, ages 15 to 64 (United Nations Office on Drugs and Crime [UNODC, 2013]. Over 8 million individuals use drugs (Express Tribune, 2017) and 700 people die every day due to drug-related problems (Qasim, 2016; Raheem, 2018). Several types of illicit drugs are easily available. Therefore, drug dependence is shockingly increasing day by day in our society. At the same time, the alarming situations of the growing exposure to drugs are kept vague (Ghazal, 2019).

Death anxiety is one of the major problems drug addict faces, which results from a defense mechanism triggered after thinking or feeling that they will die (Kesebir, 2014). The apprehensions related to death in daily life due to anticipating the state in which one is dead is known as death anxiety (Tomer, 1994). In contrary to a more intense dread triggered by an obvious risk to someone's life, it is considered a continuing state in everyday life. Although death anxiety is not ubiquitous, it has had a significant influence on many societies worldwide (Cicirelli, 2002). Psychologists have acknowledged that various circumstances may influence the degree to which people experience symptoms of death anxiety (Daradkeh & Moselhy, 2011).

Self-esteem is also related to death anxiety. Extant research has shown that self-esteem protects against death anxiety. An individual might become apprehensive or disturbed when overpowered by feelings of death anxiety caused by death consciousness (Abdel-Khalek, 2005). Self-esteem helps to deal with anxiety (Wisman et al., 2015). Death anxiety is comorbidly associated with people who have low self-esteem. When self-esteem is threatened, it is triggered, and is reduced by self-esteem defense (Davis et al., 1983; Hiyoshi et al., 2017).

People with certain personality traits are also at greater risk of developing drug addiction. It is a well-known reality that some people have more vulnerable personality characteristics, while others have traits that safeguard and assist them in avoiding drug use. Anxiety manifests itself in the person's life as unequal, out-of-scale reactions to events, inadequacy, and stress-related components. Anxious people may utilize central nervous system depressant drugs (that produce relaxation) to get out of a situation of acute and severe psychological stress. Excessive emotionality, self-blaming tendencies, and a desire to blame others' aggressive behavior, a sense of being pressed for time, poor self-esteem, and a low confidence, values framework, recognizing life's significance, psychological maturity, and religiosity make up a person's distinct personality features (Jastrzbski & Slaski, 2011).

## **Underpinning Theories**

### **Terror Management Theory (TMT)**

TMT states that individual's understanding of death certainty might cause anxiety. Resultantly, to cope with death-related anxiety, people have created a range of protective strategies. One mechanism is to adhere to the ethics established by individual's value-system. (Bergman et al., 2018). Self-esteem, according to TMT, is a cultural construct resulting from the incorporation of specific societal conditions into one's own worldview. In the knowledge of our imminent mortality, high self-esteem encourages positive effect, personal growth,

psychological wellbeing, and coping as a buffer against worry, and lowers defensive anxiety-related behavior (Pyszczynski et al., 2004).

### **Personality Theory**

Personality appears to be the most critical factor in drug use. Personality is described as a set of behavioral patterns, psychological features, and processes in humans that influence interactions and changes in the psychological, interpersonal, and environmental environment (Larsen & Buss, 2018). Around the 1940s, the hypothesis of personality traits began to gain traction (Allport, 1961). Fiske (1949), a pioneering psychologist, proposed that there are only five essential personality traits. Lewis Goldberg was an ardent advocate for five major personality traits (Ackerman, 2017). Conscientiousness, agreeableness, neuroticism, openness to experience and extraversion are the five factors that McCrae and Costa developed from their study proving the model's authenticity and creating the five-factor model.

### **Literature Review**

Extant research has revealed that personality traits significantly impact the type of drug used by addicts (Abadi et al., 2018). Extroverts avoid mortality difficulties, introverts, in contrast, experience more death anxiety (Szaniawski, 1998). Similarly, Cully et al. (2001) discovered that among the elderly, individuals with high scores on neuroticism have the elevated fear of death. It is minimal in extroverts and amiable persons who are open to new experiences. These findings support the premise that there is a link between death anxiety and personality traits (Jastrzbski & Slaski, 2011). Personality traits predict a person's behavior, and in case of drug addiction, the chances of being vulnerable to addiction impacted by the personality traits increases. An early body of studies investigated the association between personality factors and addiction using the five-factor model (FFM). Most of these researchers found that FFM personality traits influence alcohol use. Increased neuroticism, decreased agreeableness, and conscientiousness have all been linked to alcoholism (Walton & Roberts, 2004).

Additionally, a study discovered a substantial positive relationship between self-esteem and personality. Extraversion, agreeableness, conscientiousness, and openness to experience were found to be substantial positive predictors of self-esteem, while neuroticism versus emotion stability was found to be a significant negative predictor. Gender differences in two personality traits, conscientiousness, and neuroticism, were also discovered. No significant gender differences in extraversion, agreeableness, or openness to experience were found (Varanarasama et al., 2019). Moreover, a study that looked into the relationship between death anxiety and personality factors reported that neuroticism is associated with death anxiety (Ozdimer et al., 2019). In another study, researchers found a direct correlation between self-esteem and death anxiety, as well as a connection between self-esteem and spiritual wellbeing (Chung et al., 2015). Besides, another research found a negative relationship between self-esteem and death anxiety (Ozdemir et al., 2019). Extant research has established that people with low conscientiousness, life happiness, self-esteem, and high levels of neuroticism consume more medications on average (Kroencke et al., 2021). Considering the above findings, this study examined personality traits as predictors of self-esteem, and death anxiety among drug addicts. As there is a scarcity of research that studies these variables among drug addicts.

By studying the literature review, it was hypothesized that personality traits would significantly predict self-esteem and death anxiety. It is further hypothesized that extraversion, agreeableness, conscientiousness, and openness to experience would significantly and positively predict self-esteem and neuroticism would significantly and negatively predict self-esteem. It was presupposed that extraversion, agreeableness, conscientiousness and openness to experience would significantly and negatively predict death anxiety and neuroticism would significantly and positively predict death anxiety. It was also assumed that there would be significant differences in personality traits, self-esteem and death anxiety based on the demographic variables of age, education, and location.

## **Material and Methods**

Data was collected through survey research method. The pre-diagnosed sample (N=100) with cannabis and crystal meth was drawn using the purposive sampling technique from the Nai Zindagi Hospital and Arrahma Hospital for Mental health in Multan. The sample ranged in age from 20 to 65 years old and they were either had education till primary school or were illiterate.

## **Research Instruments**

### **Death Anxiety Scale (DAS - U)**

Urdu version of Death Anxiety Scale (DAS - U) translated and validated by Saleem et al. (2014) was applied. Templer (1970) developed the Death Anxiety Scale. McMordie (1979) changed DAS response category, giving the scale a Likert format. As a result, both true-false and Likert scale can be used with it. The Likert scale has from 1 to 5 rating, with 1 for strongly disagree and 5 for a strong agreement. Scores between 15 and 35 indicate a low level of Death anxiety, 36 to 55 show moderate, and a high level is from 56 to 75. Internal consistency is .84, and test-retest reliability is .83 for the Likert type format. According to McMordie (1979), the Likert scale structure improves the capacity to discern between high and low ratings. .78 Cronbach's alpha value of DAS was observed for this study.

### **Rosenberg Self-Esteem Scale (Urdu)**

The Rosenberg self-esteem scale (Rosenberg, 1965) was used to assess self-esteem in this study. Sardar (1998) translated the scale, which was later refined by Rizwan (2010). A 4-point Likert scale was used in this 10-item self-report scale. The Cronbach's alpha for the complete scale was .71.

### **Big Five Personality Inventory (BFI - 10) Urdu**

Rammstedt and John (2007) created an English version of BFI, 10 to assess personality traits. The present tool was translated into the Urdu language by Yousaf et al. (2014). It has five reversed scored items. It has a Likert scale format. Cronbach's alpha value for the inventory was .73. The Urdu version of the BFI was utilized in this study and the overall Cronbach's alpha reliability was found to be between .45 to .68 for subscales.

**Results**

Several analyses were conducted to test hypotheses, including independent sample t-tests, correlation, ANOVA, and regression.

**Table 1**  
**Pearson Correlation between Personality Traits, Death Anxiety and Self-Esteem**

Variables	1	2	3	4	5	6	7
1. EV	1						
2. AA	.12	1					
3. CON	.11	.14	1				
4. NEU	-.08	.09	.10	1			
5. OP	.44**	.24*	.06	.07	1		
6. SE	.05	.05	.24*	.16	.57**	1	
7. DA	.19*	.15	-.11	-.26**	.14	-.21*	1

Note. EV= Extraversion, AA= Agreeableness, CON= Conscientiousness, NEU= Neuroticism, OP= Openness to experience, SE= Self-esteem, DA= Death Anxiety

Table 1 indicate that extraversion is positively related with openness to experience (.44,  $p < .01$ ), and death anxiety (.19,  $p < .05$ ). Similarly, results show that agreeableness has significant positive correlation with openness to experience (.24,  $p < .05$ ). In addition, results reveal that conscientiousness has significant and positive correlation with self-esteem (.24,  $p < .05$ ). Moreover, results show significant negative correlation of neuroticism with death anxiety (-.26,  $p < .01$ ). In addition, openness to experience has significant positive correlation with self-esteem (.57,  $p < .01$ ) and self-esteem has a significant and negative correlation with death anxiety (-.21,  $p < .05$ ).

**Table 2**  
**Regression Analysis**

Relationship	Beta-coefficient	Standard Error	t-value	p-value	Supported	R <sup>2</sup>
Extraversion → SE	-.10	.33	-.29	.76	Not	.09
Agreeableness → SE	-.06	.24	-.28	.77	Not	
Conscientiousness → SE	.54	.23	2.31	.02	Yes	
Neuroticism → SE	.27	.26	1.04	.29	Not	
Openness → SE	.44	.29	1.48	.14	Not	
Extraversion → DA	.55	.41	1.32	.18	Not	.14
Agreeableness → DA	.50	.29	1.68	.09	Not	
Conscientiousness → DA	-.39	.29	-1.35	.17	Not	
Neuroticism → DA	-.85	.32	-2.61	.01	Yes	
Openness → DA	.21	.37	.57	.56	Not	

Note: SE= Self-esteem, DA= Death Anxiety.

Table 2 presents the regression analysis, which investigates whether the personality traits have a relationship with self-esteem and death anxiety. Outcomes reveal that conscientiousness is a significant and positive predictor of self-esteem ( $b = .54, t = .02, p < .05$ ). In addition, neuroticism is a significant and negative predictor of death anxiety ( $b = -.85, t = -2.61, p < .05$ ).

**Table 3**  
**Independent sample t-test of Personality Traits, Self-esteem and Death Anxiety Based on Age**

Variables	Early Adulthood		Middle Adulthood		t	P	95% CL		Cohen's d
	M	SD	M	SD			LL	UL	
EV	5.58	1.85	4.72	2.08	1.87	.06	-.055	1.77	.43
AA	5.02	1.96	5.66	2.01	-1.38	.17	-1.56	.284	.32
Con	7.00	2.94	7.15	1.8	-.26	.78	-1.27	.975	.06
NEU	6.27	1.77	6.58	1.93	.71	.47	-.55	1.18	.16
OP	6.09	2.13	5.27	2.51	1.52	.13	-.25	1.90	.35
SE	13.42	5.22	17.24	6.31	2.78	.007	1.08	6.55	.65
DA	38.42	15.54	48.04	8.37	3.40	.001	3.98	15.26	.77

Note. EV= Extraversion, AA= Agreeableness, CON= Conscientiousness, NEU= Neuroticism, OP= Openness to experience, SE= Self-esteem, DA= Death Anxiety, \*\* $p < .01$ .

The table shows significant differences in self-esteem and death anxiety among drug addicts based on age groups (early adulthood and middle adulthood). Findings show greater self-esteem in middle adulthood ( $M = 17.24, SD = 6.31$ ) than in early adulthood ( $M = 13.42, SD = 5.22$ ),  $t(98) = 2.78, p < .01$  and greater death anxiety in middle adulthood ( $M = 48.04, SD = 8.37$ ) than in early adulthood ( $M = 38.42, SD = 15.54$ ),  $t(98) = 3.40, p < .01$ . The Cohen's  $d$  value of self-esteem and death anxiety lies between .65 to .77, which confirms medium effect size.

**Table 4**  
**Independent sample t-test of Personality Traits, Self-esteem and Death Anxiety Based on Education**

Variables	Ed		Un. Ed		t	p	95% Interval		Cohen's d
	M	SD	M	SD			LL	UL	
EV	5.37	2.04	5.06	1.69	.80	.42	-4.48	1.05	.16
AA	5.66	1.88	5.95	2.96	-.59	.55	-1.26	.68	.11
Con	7.62	2.22	6.71	2.57	1.89	.06	-.041	1.86	.37
NEU	6.12	1.63	6.67	1.96	-1.51	.13	-1.25	.17	.30
OP	5.74	2.14	5.58	2.19	.35	.72	-.71	1.01	.07
SE	15.37	5.57	16.15	5.87	-.68	.49	-3.05	1.49	.13
DA	42.85	12.59	42.45	13.43	.15	.88	-4.77	5.56	.03

Note. EV= Extraversion, AA= Agreeableness, CON= Conscientiousness, NEU= Neuroticism, OP= Openness to experience, SE= Self-esteem, DA= Death Anxiety.

Table 4 shows non-significant differences in personality traits, self-esteem and death anxiety based on education.

**Table 5**  
**Independent sample t-test of Personality Traits, Self Esteem and Death Anxiety Based on Location**

Variables	Rural		Urban		t	p	95% Interval		Cohen's d
	M	SD	M	SD			LL	UL	
EV	4.56	1.64	5.09	1.89	-3.77	.000	-2.04	-.63	0.29
AA	5.08	1.56	6.52	2.90	-3.08	.003	-2.36	-.51	0.61
Con	7.64	2.10	6.78	2.65	1.79	.07	-.09	1.81	0.35
NEU	6.34	1.68	6.42	1.93	.220	.82	-.80	.64	0.04
OP	4.96	2.00	6.38	2.08	-3.46	.001	-2.23	.60	0.69
SE	15.68	4.43	15.78	6.78	.087	.93	-2.37	2.17	0.01
DA	37.40	12.76	47.94	10.85	-4.44	.000	-15.24	-5.83	0.88

Note. EV= Extraversion, AA= Agreeableness, CON= Conscientiousness, NEU= Neuroticism, OP= Openness to experience, SE= Self-esteem, DA= Death Anxiety, \*\*p<.01, \*\*\*p<.001.

Table 5 shows significant differences in personality traits, self-esteem and death anxiety based on location. Drug addicts from urban areas are more extroverted ( $M = 5.09, SD = 1.89$ ) than rural area ( $M = 4.56, SD = 1.64$ ),  $t(98) = -3.77, p < .001$ . Drug addicts from urban areas have also more agreeableness ( $M = 6.52, SD = 2.90$ ) than the rural area ( $M = 5.08, SD = 1.56$ ),  $t(98) = -3.08, p < .01$ . Drug addicts from urban areas have high score on openness to experience ( $M = 6.38, SD = 2.08$ ) than the rural area ( $M = 4.96, SD = 2.00$ ),  $t(98) = -3.46, p < .01$ . Drug addicts from urban areas ( $M = 47.94, SD = 10.85$ ) have more death anxiety than rural area ( $M = 37.40, SD = 12.76$ ),  $t(98) = -4.44, p < .001$ . The Cohen's *d* value of self-esteem and death anxiety lies between .29 to .88, which shows small effect size in extraversion and medium in agreeableness and openness to experience, in addition, large effect size in death anxiety.

## Discussion

The present study investigated personality traits as predictors of self-esteem and death anxiety among drug users. Findings showed positive relationship between conscientiousness, openness to experience and self-esteem. A past study also showed a significant positive relationship between personality traits and self-esteem (Varanarasama et al., 2019). The findings showed a positive relationship between extraversion and death anxiety and a negative relationship between neuroticism and death anxiety. This finding is inconsistent with past study in which extraversion was linked to mental health in a favorable way, while neuroticism was linked to it in a negative way (Shokrkon & Nicoladis, 2021). Results revealed that the relationship between self-esteem and death anxiety is significantly negative. This Result is consistent with past studies which showed significant relationship between self-esteem and death anxiety and established that death anxiety is more common in people who have low self-esteem, and threats to self-esteem cause death anxiety (Hiyoshi et al., 2017). Routledge (2012) concluded that a greater degree of self-esteem is associated with a positive attitude toward death and a low level of death anxiety.

More importantly, conscientiousness significantly and positively predicts self-esteem. The results are consistent with previous researches. In the study of Varanarasama et al. (2019) conscientiousness was observed as a positive predictor of self-esteem. However, neuroticism significantly and negatively predicts death anxiety among drug addicts. This finding is inconsistent with the past studies. Such as Rodriguez-Ramos et al. (2021) discovered a positive relationship of emotional stability with social desirability and life satisfaction, and negative correlation with anxiety and depression. Few studies are consistent with the result of this study. Pradhan (2020) described a positive correlation between neuroticism and death anxiety, though, the perceived stress entirely mediated this correlation. Higher degrees of neuroticism, according to some research, are not linked to ill health and, in other situations, are linked to more favorable behaviors and results, such as increased longevity (Weiss & Costa Jr., 2005).

The results demonstrated non-significant variations in personality traits, self-esteem and death anxiety based on education. Results are in line with previous research. Daradkeh and Moselhy (2011) found no statistically significant variations in the scores of drug addicts earned on the death anxiety scale based on their age, education, drug kind, or the number of times they took drugs per day. At the same time, significant differences were observed in personality traits, self-esteem, and death anxiety based on location (Ozdemir et al., 2019)

Results also demonstrated significant differences in self-esteem and death anxiety based on age groups (early adulthood and middle adulthood). There were substantial age disparities in self-esteem and death anxiety. Self-esteem improves with age (Ozdemir et al., 2019), and death anxiety similarly change by age (Russac et al., 2007). According to Bulut (2017) and Russac et al. (2007), age and death have a negative association. The findings are supported by earlier studies, which reported that fear of dying reduces as people age. As a result, these people are prepared to die. There were non-significant age variations in personality traits, according to the findings. This conclusion contradicts the findings of Donnellan and Lucas (2009), who found an unfavorable link between extraversion, openness to experience and age, while a positive link between agreeableness and age. In both Britain and Germany, middle-aged participants had the highest levels of conscientiousness. In general, age differences in the personality traits were visible after the age of 30, contradicting the "hard" plaster hypothesis, which holds that at some point in life, personality features become permanent (Srivastava et al., 2003). Degenhardt and Hall (2012) reported that severity of anxiety of death is subjective. Yet, according to other studies, death anxiety decreases as education and socioeconomic status rise; younger people have less death anxiety as compared to aged people (Abdel-Khalek & Lester, 2009; Eshbaugh & Henninger, 2013). Similarly, another study revealed a significant difference in personality traits based on age (Wagner et al., 2019)

Findings also showed significant differences in personality traits of extraversion, agreeableness, openness to experience and death anxiety based on location. Moreover, non-significant differences were found in self-esteem based on location. Mean score of drug addicts from urban area was higher on death anxiety and extraversion, agreeableness and openness to experience traits than their rural counterparts. Sindermann et al. (2017), also reported that being raised in today's big cities has detrimental emotional implications as compared to growing up in rural settings. Their findings imply that childhood in rural or urban environments may change primary emotional qualities, which are important features of personality, impacting resilience or vulnerability to psychopathology development.



## **Conclusion**

Personality traits, self-esteem and death anxiety all have a significant association. Therefore, these findings should be considered for consultation and educational programs at the university or community level in order for students and the general population to live a healthy life. This will support the development of a solid foundation during the transitional period of attaining biological and emotional maturity and for the establishment of their identity in mid-life crises. In a nutshell, this study shows that personality affects a person's life in every domain, which is relevant to the study's goal of highlighting the links between the personality traits, death anxiety and self-esteem. This interface must be thoroughly defined, and our research is a big step in the right track. We hope that this review will spark an additional wave of studies regarding the critical linkages between personality traits and addictive behavior. Increased focus on these constructs could have a big impact on intervention plans and therapeutic practices.

## **Recommendations**

This study contributes in the existing literature and present several new findings. However, the study has some limitations. Researchers could expand and clarify our findings in a variety of ways by adding other potential variables. Additionally, in this study, the sample age range was 20-65 years. Future studies should focus on the prevalence of drug abuse among undergraduate and graduate students as drug abuse is spreading alarmingly among university students. Lastly, to determine causal linkages between the variables experimental investigation is required.

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