

Personality Traits And Non Suicidal Self Injury In University Students

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Abstract

The study aimed to assess the relationship of personality traits (neuroticism, extraversion, agreeableness, conscientiousness and openness to experiences) with Non Suicidal Self Injury (NSSI) in University students. It was hypothesized that there is likely to be significant positive relationship of neuroticism with NSSI while significant negative relationship of extraversion, agreeableness, conscientiousness, and openness to experiences with NSSI was assumed¹ in University students. The sample comprised of three hundred university students who full filled DSM-5 criteria of NSSI (M=19.97, SD=1.62). The assessment measures used were: Demographic Form, The DSM-5 Level 1 Cross-Cutting Symptom Measure (APA-2013), The Big Five Personality Inventory (John & Srivastava, 1999) and The Alexian Brothers Assessment of Self-Injury (Washburn et al., 2015).The finding revealed significant positive relationship of neuroticism and NSSI while significant negative relationship of agreeableness, extraversion and conscientiousness with NSSI in University students. The study have implications for early detection, tailored interventions and prevention of NSSI.

Key words: Big Five Personality Traits, NSSI, University Students.

Introduction

Prevalence of Non Suicidal Self Injury (NSSI) is increasing day by day in university students globally. According to results of recent meta-analysis global lifetime prevalence of NSSI was 22 percent (Xiao et al., 2022).NSSI is associated with other mental health problems, decreased academic performance (Hamza et al., 2021) and physical health issues (Wang et al.,2024). Moreover, NSSI is closely linked with personality traits. People suffering from NSSI are more likely to score high on neuroticism and low on extraversion (Peng et al., 2023). Likewise, the researches revealed that high neuroticism and low agreeableness are related with NSSI (Agos et al., 2021).Furthermore, for tailored interventions and prevention of NSSI it is imperative to understand personality correlates of NSSI (Chen et al.,2024).Therefore, the current study aimed to assess the relationship of personality traits and NSSI in university students.

NSSI can be defined as direct and deliberate harm to one's own body tissues without intention of suicide. It is characterized by intentional harm to oneself, interpersonal difficulties, rumination about self-harm, feeling relief about self-harm and clinically significant distress (American Psychiatric Association, 2013).NSSI is strongly linked with personality traits. High level of neuroticism and openness to experiences and low level of agreeableness and

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conscientiousness are related with NSSI (Agos et al., 2021). In conclusion, NSSI is closely linked with personality traits.

Personality refers to unique and enduring patterns of cognitions, emotions and behaviors. The commonly accepted model of personality is five factor model (Chen, 2023). Big five factors are neuroticism, extraversion, openness to experiences, agreeableness and conscientiousness. Neuroticism is inclination to experience negative emotions. Extraversion reflects how much energetic, outgoing and sociable an individual is. Agreeableness refers to level of compassion, trust and cooperation. Conscientiousness measures and individual's achievement orientation and self-discipline. Openness to experiences reflects curiosity, imagination and willingness to experience new things (McCrae & Costa, 1987). The researchers recently reported that high neuroticism and low extraversion are related with NSSI (Peng et al., 2023).

The understanding of the relationship of personality traits and NSSI is helpful in early detection and prevention of NSSI such as individuals scoring high on neuroticism and low on extraversion, conscientiousness and agreeableness have inclination to NSSI engagement (Peng et al., 2023). Moreover, NSSI predicts suicidal thoughts and behaviors. The researchers reported fifty percent overlap of NSSI and suicidal thoughts and behaviors in non-clinical population (Horvath et al., 2020). Therefore, the objective of current study is to assess the personality correlates of NSSI in University students.

Objective

The study aimed to:

Assess the relationship of personality traits (neuroticism, extraversion, agreeableness, conscientiousness, openness to experiences) and NSSI in University Students.

Hypotheses

There is likely to be positive relationship between neuroticism and NSSI while negative relationship among extraversion, agreeableness, conscientiousness, openness to experiences and NSSI in University students.

Neuroticism is likely to predict NSSI positively while extraversion, agreeableness, conscientiousness and openness to experiences are likely to predict NSSI negatively in University students.

There is likely to be significant gender differences on NSSI in University students.

Method

Research Design

Correlational research design was used to assess the relationship of personality traits (neuroticism, extraversion, agreeableness, conscientiousness, openness to experiences) and NSSI in University students.

Sample

The sample comprised of three hundred university students who fulfilled DSM-5 criteria of NSSI ($M=19.97$, $SD=1.62$). The students were selected from Government and private universities of Lahore, Pakistan. Male and Female students were recruited (Male=144, Female=156). Regular university students were included in the study. Those who

were suffering from any physical disability or any other psychological disorder were excluded from the study.

Assessment Measures

The following assessment measures were used in the study.

Demographic Sheet

It was used for getting information about demographic characteristic of the participants. It included age, education, gender, age, education and occupation of parents, number of siblings, family system, family environment, family income, first episode of NSSI, duration of NSSI, physical illness and any other psychological illness.

The DSM-5 Level 1 Cross-Cutting Symptom Measure

It was used as a screening instrument. It comprises of twenty three questions. It screens out anxiety, anger, depression, somatic symptoms, mania, suicidal ideation, psychosis, OCD, sleep problems, memory, substance use, dissociation and personality functioning. It is rated on five point rating scale ranging from 0 (not at all) to 4 (nearly every day). It is clinically useful measure and have good test re test reliability (APA, 2013).

The Big Five Personality Inventory (BFI)

It was used to measure big five factors of personality: neuroticism, extraversion, agreeableness, conscientiousness and openness to experiences. It consists of 44 items. It has five subscales: neuroticism, extraversion, agreeableness, conscientiousness and openness to experiences. It is rated on five point Likert scale ranging from strongly disagree to strongly agree (John & Srivastava, 1999). For the present study sample the reliability of Extraversion was .71, Agreeableness .70, Conscientiousness .71, Neuroticism .71 and Openness to experiences .76.

The Alexian Brothers Assessment of Self-Injury (ABASI)

It was used to assess NSSI. It is based on DSM-5 criteria. It has two sections that assess lifetime prevalence and prevalence in the last year. Moreover, it measures frequency, reasons, methods and impairment (Washburn et al., 2015). The alpha reliability of ABASI for the present study sample was .80.

Procedure

Permissions were taken from authors of scales and all respective authorities. The participants were approached after taking permission. They were informed about nature and purpose of research. Informed consent was taken. They were assured that anonymity and confidentiality of data will be maintained. After taking consent they were requested to fill questionnaires. They were also informed about right of withdrawal. The data was entered in Statistical Package for Social Sciences (SPSS) and analyzed for results.

Results

The study aimed to assess the relationship of personality traits and NSSI. It was hypothesized that there is likely to be positive relationship of neuroticism with NSSI while negative relationship of extraversion, agreeableness, conscientiousness and openness to experiences with NSSI in university students was postulated. For testing this hypothesis Pearson Product Moment Correlation was used. The results are shown in Table 1.

Table 1 Correlation analysis indicating Correlation among personality traits and NSSI in University Students (N=300)

Construct	1	2	3	4	5	6
1. Extraversion	1					
2. Agreeableness	.24**	1				
3. Conscientiousness	-.07	-.05	1			
4. Neuroticism	-.01	.03	.02	1		
5. Openness	.20**	.18**	-.16*	-.21**	1	
6. NSSI	-.12*	-.21**	-.13*	.17**	.08	1

Note. * $p < .05$; ** $p < .01$; *** $p < .001$; NSSI= Non Suicidal Self Injury.

Table 1 shows that neuroticism has significant positive relationship with NSSI whereas, extraversion, agreeableness and conscientiousness has significant negative relationship with NSSI.

Moreover, it was postulated that neuroticism is likely to predict NSSI positively while other personality traits (extraversion, agreeableness, conscientiousness and openness to experiences) are likely to predict NSSI negatively in University Students. Linear regression was run to assess prediction. Results are shown in Table 2.

Table 2 Linear Regression analysis Indicating Personality Traits as Predictors of NSSI (N=300)

Variables	Non Suicidal Self Injury		
	R ²	B	β
Block 1	.11***		
Constant		3.24***	
Agreeableness		-.24***	-.23***
Conscientiousness		-.13**	-.15**
Neuroticism		.23***	.22***
Openness		.17**	.18**
Extraversion		-.12	-.11

Note. * $p < .05$; ** $p < .01$; *** $p < .001$; B = Unstandardized Co efficient; β =Standardized Co efficient.

Model 1 explains 11% variance in NSSI, $F(5, 294) = 7.48$, $p = .001$. This model shows that neuroticism and openness are significant positive predictors of NSSI while

agreeableness and conscientiousness are significant negative predictor of NSSI in university students.

Additionally, it was assumed that there is likely to be significant gender differences on NSSI in University students. For this purpose independent sample t-test was applied. The results are shown in Table 3.

Table 3 Independent sample t-test indicating Gender Differences on NSSI in University Students (N=300)

Variable	Male	Female	95% CI				
	(N=144)	(N=156)	t(98)	p	LL	UL	Cohen's d
NSSI	3.63 (.41)	3.85(.38)	-4.93	.00	-.31	-.13	0.56

Note. *p < .05; M= Mean; SD= Standard Deviation; CI=Confidence Interval; LL= Lower Limit; UL= Upper limit.

Table 3 indicates significant gender differences with moderate effect size on NSSI in University Students.

Discussion

The study aimed to assess the relationship of personality traits with NSSI in University students. It was hypothesized that there is likely to be positive relationship of neuroticism with NSSI while negative relationship of extraversion, agreeableness, conscientiousness and openness to experiences with NSSI in university students. The results revealed significant positive relationship of neuroticism and NSSI while significant negative relationship of agreeableness, extraversion and conscientiousness with NSSI. Similarly, the researchers indicated that neuroticism and NSSI are positively related in College students (Liao et al., 2022). Likewise, it was found that agreeableness is significantly negatively related with NSSI (La Guardia et al., 2020). Additionally, the researchers reported that extraversion and conscientiousness are significantly negatively associated with NSSI (Jiang et al., 2022).

Moreover, it was hypothesized that neuroticism is likely to be significant positive predictor of NSSI while extraversion, agreeableness, conscientiousness and openness to experiences are likely to be significant negative predictors of NSSI in university students. This assumption was tested by using linear regression. The findings showed that neuroticism and openness are significant positive predictors of NSSI while agreeableness and conscientiousness significant negative predictor of NSSI in university students. Likewise, the researchers reported that neuroticism is significant positive predictor of NSSI (Rajhvajn et al., 2024). Bresin and Hunt (2023) reported that openness is significant positive predictors of NSSI. In another research it was concluded that agreeableness is significant negative predictor of NSSI (Takahashi et al., 2024). Jiang et al. (2022) reported that conscientiousness is significant negative predictor of NSSI.

Furthermore, it was postulated that there is likely to be significant gender differences on NSSI in university students. Independent Sample t-test was applied to check this hypothesis. The results revealed significant gender differences on NSSI in university students. According

to recent meta-analysis females are more likely than male to engage in NSSI globally. (Mooloney et al., 2024).

Limitations and Suggestions

Sample comprised of only college and university students that might limit generalizability. Cross sectional design was used. So, causal relationship cannot be established. Longitudinal research design should be used to track changes in personality development. Self-report measures were used for data collection that can cause biases.

Implications

This research will be helpful for identifying at risk students e.g. individuals with high neuroticism and low agreeableness and extraversion are at risk of NSSI. Moreover, assessment of personality profiles will help in providing tailored intervention such as stress management will be helpful for those scoring high on neuroticism. Furthermore, understanding personality profile will help in early detection and prevention of NSSI.

Conclusion

Hence, it can be concluded that neuroticism is significantly positively related with NSSI while agreeableness, conscientiousness and extraversion are significantly negatively related with NSSI in university students.

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