Five Factor Model of Personality as a Predicator of Callous-Unemotional Traits among Students

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Personality traits are associated with callous unemotional traits and are high predictor of callous unemotional behavior. In this study, callous-unemotional qualities and personality components were examined in relation to each other. The impact of personality traits on CU qualities and its subscales, such as callousness, uncaring, and unemotional component, is the main area of inquiry. Data for the current study was gathered from Gujrat City's public and private colleges. Convenient sampling was used to choose a sample of 1500 students, of which 750 boys and 750 girls, aged 15 to 22, were included in the sample. The Inventory of Callous-Unemotional Traits (Frick, 2004) and The Big Five Inventory (John & Srivastava, 1999) were employed as measurement tools. The findings indicated a favorable correlation between CU and Personality. Additionally, it demonstrated that neuroticism was investigated as a personality trait predictor of CU characteristics and its sub-domains. In addition, the study reveals that guys exhibit higher levels of CU qualities than girls, suggesting that boys are more likely to engage in anti-social behavior. The current findings can give insight into the important role of personality traits in the commission of CU traits. It can help the teachers to identify the growing rate of CU traits among students and different workshops can design for teachers regarding student's behavior and how to contribute in the treatment with reference to Pakistani culture.

Keywords. Callous-unemotional traits, Personality traits, College, Students, Pakistan

Personality is defined as "prominent aspects that are exhibited in a variety of important personal and social contexts". To put it simply, persons have positive features which to certain extent regulate their behavior, for example, a sociable individual is likely to help others

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and give worth to people (American Psychiatric Association, 2023). Every individual has created with a unique personality pattern. Every individual is different from others on the basis of his/her feeling, thinking and behaving patterns. Like different animal species, human also have a distinctive life sequence that comprise of sequential stage of development, which describe by a diverse set of physical, biological, behavioral and emotional structures from birth (or during pregnancy) to adolescence (Buck, 2020).

An individual's personality is predisposed by life events, environment (surroundings, life situations) and hereditary features. This development can be positive and negative, too. With positive behavior, a child develops a healthy personality and mental health. On the other hand, with negative behavior, a child develops a problematic personality and poor mental health. This may can lead towards abnormality. In childhood, it can develop into Callous-Unemotional Traits and anti-social behavior. This conduct is exaggerated and detrimental to interpersonal relationships, groups, and society. Antisocial conduct puts kids at risk for detrimental effects on their physical and mental health as they grow older, especially if they have early ancestry (Fanti et al., 2018).

The existence of psychopathic qualities may lead to anti-social behaviors in humans. Although it has not considered as a personality disorder in last three editions of Diagnostic and Statistical Manual of Mental Disorders (edition 1980, 1987, 1994, correspondingly) Nonetheless, some researchers contend that in the realm of personality disorders, it is the most trustworthy and comprehensive diagnostic category (Flórez et al., 2020).

Psychopathy is sequence of interpersonal, behavioral and affective personality dimensions. People with high degrees of psychopathic characteristics are characterized by antisocial conduct, impulsivity, recurring impulsivity, shallow and unscrupulous interpersonal style, and lack of empathy. The term "callous unemotional traits" also refers to the affective dimension of psychopaths (Patrick, 2018).

With the increasing research in study of psychopathy, its investigation has been extended to children and youngsters. These traits have premeditated as developmental construct, so it can be recognized before adulthood. The addition of the specifier "with limited prosocial emotions" for the conduct disorder diagnosis indicates that researchers have given particular attention to the callous-unemotional traits, which characterize the affective component

of psychopathy, in their studies on children and adolescents (APA, 2023).

A lack of empathy, callousness toward oneself and others, low levels of interpersonal emotions, a lack of guilt or regret, and a fear of punishment are all seen as callous unemotional (CU) qualities (Waller et al., 2020). In the fifth revision of Diagnostic and Statistical Manual of Mental Disorders, Callous unemotional traits were added as a specifier of Conduct Disorder (i.e., Conduct Disorder with limited prosocial-emotions). Callous-Unemotional Traits are defined as lack of guilt or remorse (individual does not feel bad or guilty when he/she commit something wrong (abolish remorse when articulated only after trapped or facing punishment), Callous lack of empathy (disrespects and is shows no concern about the feelings of other people. A person is described as being emotionless, heartless, and careless with their performance; poor or difficult performance in critical activities such as work or school is not the responsibility of the entity in question. Even when opportunities are obvious, the person makes little attempt to perform properly, and he or she used to criticize others for their subpar work (American Psychiatric Association, 2023).

To comprehend personality in a border term, it is necessary to understand dimensions of personality. These characteristics have grown to be important pieces of evidence in the research on the connections between various educational activities and personality traits. The Five Factor Model is the most widely used model in personality dimension because these personality domains effectively represent a wide range of individual characteristics in personality (McCrae & Costa, 2021).

It includes extraversion, which is characterized as a person's level of talkativeness and extroversion in social settings. It is primarily related to sociability. Extraverts typically place a high value on accomplishment and support, and they are skeptical of tradition or convention (Sagiv & Roccas, 2021). Agreeableness is a predisposition to be sympathetic and helpful than distrustful and aggressive towards others. A person having high level of agreeableness is generally friendly, sincere and sensitive. Conscientiousness is the tendency to exhibit self-control, strive for achievement in spite of obstacles or outside expectations, and behave obediently. These characteristics indicate a propensity for thoughtful behavior as opposed to impulsive activity (Roccas, 2003).

Neuroticism is the propensity to feel bad emotions, including anger and begin negative. Neuroticism is defined as the inclination to feel anxious, angry, and other negative emotions frequently.

Emotional stability is another term for it. Opening up is typically linked to the arts, adventure, feeling, unusual concepts, imagination, curiosity, and diversity of experiences. These people are appreciative of the arts, rationally inquiring, and sensitive to beauty (McCrae & Costa, 2021).

Since personality traits are distinctive features that characterize individuals and account for variances among them. Psychopathy has recently been studied in the context of normal personality traits to bitterly describe which type of personality contains callous-unemotional traits and which type of traits are at risk. Previous literature confirms that most personality abnormalities can best be abstracted as normal personality traits (Vize et al., 2020).

Very recently research conducted which was aimed to study five factor model and CU traits in adolescents to explore the relationship in between traits. Study outcomes reveal that each personality dimension is associated with different factors of CUT, for example, callousness factor with agreeableness dimension, factor uncaring with conscientiousness trait and the last factor unemotional linked with extraversion (Romero & Alonso, 2017).

The current study is conducting to investigate relationship between personality and callous unemotional traits. It was conducted to find correlation between five factors of personality and CU traits among college students in Gujrat. Adolescence is a critical period for the development of antisocial behavior. This study can help identify adolescents with high CU traits, a strong predictor of future aggression and delinquency. Early identification allows for preventative interventions to be implemented, potentially limiting negative trails (Frick & White, 2008). Antisocial behavior likely stems from multiple pathways. This study is needed to explore how personality interacts with these pathways and how CU traits influence the development of antisocial behavior.

Research Objectives

1. To examine the relationship between personality factors (Extraversion, Agreeableness, Neuroticism, Consentaneous and Openness to experience) and callous-unemotional traits (Callousness, Uncaring and Unemotional) among college students.

2. To find out demographic (gender, residence area and socioeconomic status) effect on personality traits and callous-unemotional traits among college students.

Hypothesis

1. There would be a negative relationship between personality traits and callous unemotional traits among college students.

2. Agreeableness, conscientiousness, neuroticism and openness will negatively predict callous-unemotional traits.

3. Boys will show higher mean scores than girls on measures of callous-unemotional traits among college students

Method

Sample

In present research, students of colleges in Gujrat City including Government and Private Institutes were selected. Students of Intermediate level (Part I & II) and B.A/B.Sc/B.Com Level (Part I & II) from the faculty of Sciences, Arts and Accounting included in the study. A sample of 1500 participants age range 15-22 years (M = 17.7, SD, 1.47) was selected. An equal number of males and females (males = 750 & females = 750) was selected from both private and government institutes. The sample size was calculated by using Tara Yamni formula (1967) which was n = N/1 + N (e) [2.] (Yamane, 1967). Participants were differed in term of age, residence area, socio-economic status, result, family system, no of siblings and birth order. Convenience, relevance, and availability of data led to the adoption of convenience sampling in the research participant selection process. All of the participants in the current study who were available and willing to participate were chosen.

Instruments

Following instruments were used in the present study.

Consent Form

It consisted on introduction of researcher and research topic. Purpose of study was written and asked about respondent's willingness. It was ensured to respondent that all his/her provided information will remain confidential and will only be used for research purpose.

Demographic Sheet

The demographics of the study was obtained in term of respondent's age, gender, residence area, institute, education level, major subject, last year result (percentage), year of study, socio economic status (SES), family system, no of siblings and birth order.

The Inventory of Callous Unemotional Traits

The ICU used in present study is developed by (Frick, 2004). It is a 24-item questionnaire which was intended to give inclusive evaluation of callous and unemotional traits. These traits lead toward anti-social and aggressive actions in youth. It consisted on a 4-point Likert scale rated as 0 (not at all true) to 3 (definitely true) to describe how well each statement explains about traits. Callousness; 4,8,9,18,11,21,7,20,2,10,12; uncaring; 15,23,16,3,17,24,13,5; unemotional; 1,19,6,22,14 are the three sub-scales and their corresponding items. The following twelve items have been reverse-scored: 1, 3, 5, 8, 13, 14, 15, 16, 17, 19, 23, 24.

The Big Five Inventory

It is developed by John and Srivastava in 1999. It is a multidimensional personality inventory consisted on 44-item scale and rated to use five-point Likert scale that rated from 1 = strongly disagree to 5 = strongly agree. The five personality domains are measured by the scale. Eight items were used to index extraversion: 1, 6R, 11, 16, 21R, 26, 31R, and 36. Nine items were used to index agreeableness: 2R, 7R, 12R, 17, 22, 27R, 32, 37R, 42; nine items were used to index conscientiousness: 3, 8R, 13, 18R, 23R, 28, 33, 38, 43R, Eight items—4, 9R, 14, 19, 24R, 29, 34R, 39—were used to measure neuroticism, while ten items—5, 10, 15, 20, 25, 30, 35R, 40, 41R, 44—were used to index openness.

Procedure

In current study, after topic selection scales were selected and permission was taken from authors via email. For data collection, permission was taken from the concerned authorities including parents and principle of the colleges. Parents were contacted with the help of

principle. While interaction with participants, they were provided with introduction of research topic, basic objective was communicated and asked participants willingness to participate. Participants were required to sign the consent form if they want to participate and provide other demographic information. Then all the instructions about scale were given and asked them to fill out questionnaire. All the measures were administered individually. Participants were asked to provide honest response. They were instructed that they can withdraw at any time and not to leave any statement unrated. After collecting the data, analysis was run on it.

Results

Table 1: *Correlation between Callous-Unemotional Traits and Personality Factors (N=1500)*

Variables	1	2	3	4	5	6	7	8	9
1.Callousness	-	$.11^{**}$	$.12^{**}$	$.68^{**}$	-.01	$-.63^{**}$	$-.58^{**}$	-.31**	$-.28^{**}$
2.Uncaring		-	$.30^{**}$	$.74^{**}$	$-.36^{*}$	$-.38^{**}$	$-.36^{*}$	$-.37^{**}$	$-.27^{**}$
3.Unemotional			-	$.55^{**}$	$-.47^{**}$	$-.31^{**}$	$-.26^{*}$	$-.33^{**}$	$-.47^{**}$
4. ICUT				-	$-.27^{**}$	$-.41^{**}$	$-.60^{**}$	$-.24^{**}$	$-.26^{**}$
5.Extraversion					-	$.30^{**}$	$.26^{*}$	$-.37^{**}$	$.34^{**}$
6.Agreeableness						-	$.21^{**}$	$.38^{**}$	$.34^{**}$
7.Conscientiousnes							-	-.04	$.21^{**}$
8.Neuroticism								-	$.30^{**}$
9.Openess									-

Note. ICUT = Inventory of Callous Unemotional Traits.

$^{**}p < .01$, $^{*}p < .05$.

Table 1 shows there is a significant relationship between Callous-Unemotional Traits and Big-Five Factors of Personality. Table indicates that there is a significant negative relationship between callousness and agreeableness, conscientiousness and openness to experience. Similarly, Uncaring subscale, unemotional subscale and total scores of Inventory of Callous-Unemotional traits have a significant negative relationship with all type of personality trait. Correspondingly, extraversion has significant relationship with all its personality traits. Agreeableness is significantly correlated with conscientiousness, neuroticism and openness personality trait and conscientiousness is linked with openness to experience. Moreover, Neuroticism is significantly correlated with Openness to experience.

Table 2: *Agreeableness, Conscientiousness, Neuroticism and Openness as predictor of Callous-Unemotional Traits (N=1500)*

Variables	B	SE	*B*	95% CI	
				LL	UL
Constant	5.372	.367	.02	4.652	6.092
Agreeableness	.01	.01	.01	-.01	.04
Conscientiousness	.00	.01	.06	-.02	.03
Neuroticism	.03	.01	.03	-.00	.06
Openness	.01	.01	.02	-.01	.03
R	.11				
R^2	.01				
ΔR^2	.01				
F	5.233				

Note. B = Unstandardized Regression Coefficient, S. E = Standard Error, β = Standardized Coefficient, CI = Confidence Interval, LL = Lower Limit, UL = Upper Limit. The table shows that the independent variables statistically significantly predict the dependent variable, $F(4, 1495) = 5.23$, $p < .001$ (i.e., the regression model is a good fit of the data).

A multiple regression was run to predict Callous-unemotional traits from agreeableness, conscientiousness, neuroticism, and openness. These variables statistically significantly predicted Callous-unemotional traits, $F(4, 1495) = 5.23$, $p < .001$, $R^2 = .014$. Only neuroticism added statistically significantly to the prediction, $p < .05$.

Table 3: *Gender Differences in Callous-Unemotional Trait Scores*

Variables	Boys (n = 750)		Girls (n = 750)				95% CI		Cohen's
	M	*SD*	*M*	*SD*	*t*(1498)	*p*	LL	UL	d
Callousness	13.32	3.98	11.43	4.53	8.56	.00	1.45	2.32	.44
Uncaring	16.92	4.02	11.57	2.78	29.92	.00	4.99	5.69	1.54
Unemotional	6.99	2.45	5.19	1.73	16.40	.00	1.58	2.01	.84
ICUT	37.24	6.39	28.19	5.63	29.03	.00	8.43	9.65	1.50

Table 3 show gender differences for Inventory of Callous-Unemotional Traits Total and its Subscales. For Callousness, the results showed significant gender differences between boys (*M* = 13.32, *SD* = 3.98) and girls (*M* = 11.43, *SD* = 4.53). Similarly, for Uncaring, Unemotional subscale, results were significant as the scores for male and female. Table also indicated that there are significant differences in gender for Total scores of Callous-

Unemotional Traits. Specifically, results suggested that boys have experienced more Callous-Unemotional Traits than girls.

Discussion

In the line with a dimensional model of psychopathology, the present study designed to inspect callous-unemotional traits among college students of Gujrat city as extreme alternations of common extents of personality. In the present study, the sample was selected from colleges adolescence is a time of profound discoveries and changes. It's an opportunity to embrace one's individuality and forge closer bonds with family, friends, and the community. Adolescents may go through bodily changes, become more aggressive, engage in rebellious activities, and have trouble speaking in social situations (Tabrizi et al., 2024).

The study's primary goal was to determine how CU characteristics and personality factors relate to one another based on recent studies. The current study's findings are consistent with earlier research since all personality traits, including extraversion, agreeableness, conscientiousness, neuroticism, and openness to new experiences, were negatively connected with the overall CU score (Romero & Alonso, 2017). Literature also identified the association of personality domain with each subscale of ICU. Conscientiousness, agreeableness, and receptivity to new experiences are linked to callousness. Conscientiousness, extraversion, agreeableness, neuroticism, and openness to new experiences are all connected with the uncaring subscale that showed the negative association of personality traits due to personal factors (Baroncelli et al. 2024). The subscale of callous unemotional qualities known as "unemotional" is linked to neuroticism, agreeableness, and openness to new experiences, as school and college students experiences such behaviors in daily life routine, which cause aggressive tendencies, poor decision making and bad social image (Facci, et al. 2023). These results are very comparable for Pakistani college students as at the age of adolescent they experienced many of social, psychological and family factors to fulfill the requirements of their responsibilities. Such expectation creates anxiety and psychological distress among the students and they become frustrated, aggressive, agitated and develop many of conduct or anti-social personality traits in the long run (Shagufta, et al. 2023).

Table 2 in the study indicated the predicted relationship between the depended and in depended variables. Multiple regression analysis

was run to find predicted relation between Callous-unemotional traits and the five-factor personality (agreeableness, conscientiousness, neuroticism, neuroticism and openness). Results indicated that only neuroticism added statistically significantly to the prediction, $p < .05$. Students with low conscientiousness scores likely to be chaotic, inconsistent, and inefficient in their behavior, according to a study. Students who exhibit this quality tend to act in a harsh and emotionless manner. They tend to be immoral, emotionally detached, and indifferent to the sentiments of others. They behave indifferently toward their work. Comparable findings were found in a number of adolescent research projects (Vize et al., 2020).

Researches indicated that the personality factors are also significantly linked with subscales of inventory of callous unemotional traits. A study reveals that people high in neuroticism have increasingly chances to fall in many of psychological factors including conduct and aggression as well students with high neuroticism are emotional volatility (Radovic, 2024). Results also support the Pakistani culture as many of our school and college students reported with the symptoms of anger, anxiety, depression, irritability and emotional instability also known as neurotic personality trait (Janjua, Shaukat, & Shamim, 2024). When they could not find out the way out, they become more vulnerable to the problem conduct and callous unemotional behavior (Ishfaq & Kamal, 2023).

Table 3 indicated that there are significant differences present in college boys as compare to the girls. Many studies supported that boys experience more CU traits as compare to girls (Hawes, et al. 2019). Researches indicated that many factors could be reason behind such as boys experience more physical punishment, aggression and hard-behavior from the elder ones, which may lead toward deficit or conduct behavior (Northam & Dadds, 2020). It is also experienced by a study that it varies from culture to culture as in some cultures like Asia strict grooming of male child and become a aggressive and angry man considered normal as compere to Europe (Allen et al. 2018).

Boys in our Pakistani culture is known to receive greater parental attention and are given precedence in the home from birth. Parents who are unaware of their own errors exhibit reckless behavior. It results in a lack of regret for mistakes made and they. They turn heartless and icy Safder and Rafique (2023). Boys are frequently told, "Boys don't cry, that's a sign of weakness." Boys learn early on to consciously suppress their feelings, which can occasionally lead to their emotionless demeanor as teenagers (Kanwal & Jami, 2019).

Conclusion

Research has demonstrated that personality plays an important role in the exhibition of Callous Unemotional (CU) traits among college students. Combined, the current research added fresh literature by giving evidences of Personality factors in the relation to CU traits. In the present study, results highlighted that personality traits are the predictor of CU traits among college students and boys experienced more callous unemotional traits as compare to girls. Based on current findings, this information about role play of personality in expression of CU traits has been updated. It gives future direction to find the answer of how personality traits raised impact on CU traits in school and university students.

Limitations and Recommendations

Though current research showed significant results, but it might can have some limitations in it. In the current study, responses of students of Gujrat city were analyzed and other areas were excluded so it could limit the generalization of results. The current sample could also be constrained in term of ages targeted, as only college students of age group 15 to 22 years were included. So, these findings could not generalizable to younger children or adults. In current sample, only college students were considered, it also could be a limitation.

As the current study has some limitations so, there are some suggestions as well. The present study will be helpful for those who are interested to study callous-unemotional traits in relation to explore personality factors. It is suggested that future investigation should try to study the moderation of callous unemotional traits with relationship between conduct disorder and anti-social behaviors crosswise developmental period, from childhood to adulthood in other cities of Pakistan.

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