

## Role of Personality Factors in Experiencing Psychological Distress among Adolescents

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**Abstract:** Purpose of the present study was to investigate the role of personality factors in experiencing psychological distress among adolescents. The sample comprised of 200 (100 male and 100 female) students from senior secondary school of Aligarh Muslim University Aligarh. The Neo Five Factor Inventory (Costa and Mc Crare, 1992) was used for measuring personality factors and PGI Health questionnaire N-1 (Werma, Wig and Prashad 1985) was used for measuring psychological distress. T-test and product-moment correlation was used for analyzing the data. Result showed that there was significant positive correlation between neuroticism dimension of personality and psychological distress. Result also showed that there was significant negative correlation between others four dimensions of personality (i.e. Extraversion, Openness, Agreeableness and Conscientiousness) and psychological distress. In gender differences, it was found that female students scored significantly higher on neuroticism dimension of personality in comparison to male students. It was also found that male students scored significantly higher on other four dimensions of personality factor (i.e. Extraversion, Openness, Agreeableness and Conscientiousness) as compared to female students. Further it was also found that female students scored significantly higher on psychological distress in comparison to male students.

**Keywords:** Personality factors, Psychological Distress, Adolescents.

### I. INTRODUCTION

In the modern time psychological distress is a common mental health problem among general population and specially for students population because on one side the way is open for growth and development due to advancement of science and technology and every one wants to go ahead than other, for which they generally work hard for achieving success in their goal, while on the other side they face a large number of problems due to psychological factors such as disparity in intellectual abilities, differences in personality traits and temperaments, gender differences etc. Along with these psychological factors stressful circumstances, such as academic demands, parental pressure, financial difficulties, and a variety of social stressors also play important role in experience of psychological distress. As a result, up to one third of all adolescents population meet criteria for depression and anxiety [1];[2]. Therefore, mental health has become an increasingly important concern in our society as it has been found that the prevalence and seriousness of psychological disorders are more among students population and their level of psychological distress has also been found to be higher as compared to the general population [3];[4]. Kessler, Abelson, Demler, Escobar, Gibbon and Guyer (2004) concluded on the basis of their studies that the most mental disorders occurring between the age of 15 to 24 [5].

Adlaf, Glikzman, Demers, and Newton-Taylor (2001) [6]; Rana, Smith, and Walking (1999) also found in their study that university and college students are more vulnerable to psychological distress than the general population in western societies [7]. Therefore, the objective of present study is to investigate the role of personality factors in experiencing psychological distress among adolescents.

Psychological distress is defined “as a continuous experience of unhappiness, nervousness, irritability and problematic interpersonal relationships” [8]. Psychological distress refers to a range of negative feeling that lead to mental health problems such as anxiety and mood disorders. High psychological distress has been shown to be associated with increased rates of substance use and poor school performance [9].

Psychological distress is largely defined as a state of emotional suffering characterized by symptoms of depression (e.g., lost interest; sadness; hopelessness) and anxiety (e.g., restlessness; feeling tense) [10]. These symptoms may be tied in with somatic symptoms (e.g., insomnia; headaches; lack of energy) that are likely to vary across cultures [11]. In particular, tenants of the stress-distress model posit that the defining features of psychological distress are the exposure to a stressful event that threatens the physical or mental health, the inability to cope effectively with this stressor and the emotional turmoil that results from this ineffective coping [12]; [13].

There is a difference between day to day stress and distress. Every one experience stress, it is not only normal but within acceptable limits, play a positive role. Some level of stress is beneficial because it produces alertness and determination. Stress may produce physical and nervous tension but we are still able to cope. When stress become too great and last too long, we may start to experience distress, it is a state in which our coping abilities begin to breakdown. Distress means that stress has gone beyond acceptable limits, when we experience distress, we are out of balance. In this case our bodies and mind cry out for some kind of help. This call for help may take many forms such as moodiness, irritability,

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depression, anxiety, insomnia, or physical symptoms such as stomach upset or headache. In the case of great distress, a more serious imbalance may result. Distress may lead into a numbing of thought processes and unwillingness to act. Sense of meaninglessness may develop into thought of suicide. Nervousness and anxiety may intensify to the point of incapacitating fears such as agoraphobia (fear of being in open space) or obsessive habit (repeatedly washing one's hand or cleaning the sink do to exaggerated fear about dirt and germs). Psychologist suggested that psychological distress vanishes when the stressor disappears or when an individual comes to cope effectively with this stressor [13]. One model that is useful in understanding stress among students is the person environmental model. According to this model, stressful events can be appraised by an individual as "challenging" or threatening [14]. When students appraise their education as a challenge, stress can bring them a sense of competence and an increased capacity to learn. When education is seen as a threat, however, stress can elicit feelings of helplessness and foreboding sense of loss. A critical issue concerning stress among students is its effect on learning. The Yerkes Dodson law (1908) postulates that individuals under low and high stress learn the least and that those under moderate stress learn the most [15]. A field of study and laboratory test support that notion that excessive stress is harmful to student's performance.

Similarly Wheaton and his colleagues (2007) investigated the stability of psychological distress among adults based on seven longitudinal studies lasting from 1 to 10 years. They found that psychological distress was moderately stable. However, they did not found the any role of personality in this relative stability of psychological distress over time [16]. While Jorm and Duncan-Jones (1990) found in their study that neuroticism was associated with psychological distress [17].

### Personality Traits

Personality traits play an important role in the experience of psychological distress; therefore, personality traits have recurrently been a variable of interest in studies pertaining to mental health problems among adolescents. According to psychologists personality traits refer to the tendency to react in a certain way across various situations [18]. In general term personality encompasses a wide spectrum of unique traits and characteristics which influence an individual's reactions to daily events. In other words, how an individual reacts to environmental stimuli is dependent on the inclinations and tendencies of his/her personality dispositions [19]. Psychologists found on the basis of their research that there is a link between personality factors and psychological distress [20]. Other researches suggested that it is very important that how a person perceives and interprets stress, all these depend on personality traits. In other words personality factors contribute a significant role in the experience of psychological distress by influencing the perception of stress as well as how the stress is interpreted [21]. A number of researchers who investigated the relationship between personality factors and psychological distress have found that there is a link between personality and depression [24], while other did not find any relationship between these variables [22].

### Big Five Factor Model of Personality

The taxonomy of personality in the field of psychology has gone through progressive metamorphoses over the years through diverse research efforts. More specifically, traits can be classified into two categories: general (broad) traits and specific traits. General (broad) traits explain general behaviors and remain consistent across a variety of situations and different settings. An example of general (broad) traits is Big Five Factors Model of Personality [23]. Some traits, on the other hand, have a narrower scope, are applied to more specific behaviors and may vary depending on the context, for example, need for achievement, risk-taking, innovativeness, autonomy, locus of control, and self-efficacy, they are considered as specific traits [24].

Psychologists presented a comprehensive framework of big five factors model, which categorizes personality into five broad dimensions: Extraversion, Openness, Agreeableness, Conscientiousness, and Neuroticism [25]. The big five factors model of personality provides broad information on these basic personality dimensions [26] with each dimension describing a subset of individual characteristics independently [27].

#### 1. Extraversions vs. Introversion

Extraversion is the first dimension of the Big Five Factors Model of Personality which concerned with interpersonal interactions, activity, need for stimulation and capacity for joy, so that someone scoring high on this trait would be sociable, active, talkative, person-oriented, optimistic, fun-loving and affectionate [28]. In other words extraversion has an interpersonal element that refers to someone who is outgoing, sociable, friendly, enthusiastic, dominant in social situations; whereas introverts tend to be less sociable, slower to self-disclosure, appear less energetic, and are inclined to internalize cognitive processes. Due to its outgoing nature, extraverts are usually more successful in seeking social support, have larger social network and receive greater amount of social support [29].

It is also found that individuals high on this trait have been found to reappraise problems positively, use rational problem-solving coping strategies and seek social support [30]. Extraversion has been observed in several studies examining mental health problems among adolescents. Regardless, no evidence has been found to support a significant relationship between extraversion and psychological distress [31]; [32]. Jylha and Isometsa (2006) found that there is a negative correlation between extraversions and symptoms of depression and anxiety, and have possible modifying effects of reducing perceived stress when combined with other personality traits such as conscientiousness and neuroticism [33].

#### 2. Openness to Experience vs. Close-Mindedness

The second dimension of the Big Five Factors Model of Personality is Openness to experience. Openness refers to a propensity to be imaginative, independent minded, intellectually curious, unconventional, individualistic, adventurous, daring, divergent in thinking and open to changes or challenges.

They welcome nouveaux experiences, alternative opinions and adjust their beliefs and behaviors more readily when exposed to new information. Closed individuals, on the other hand, tend to be more conventional, have less ability to understand abstraction and favor simplicity and familiarity. Open people are known to be more aware of their thoughts, impulses and emotions simultaneously; as a result, both of their positive and negative experiences become more intense. This may be one of the reasons why this trait has been linked to both prospective favorable and unfavorable life events which, expectedly, are related to the genesis of stress [34].

In addition, individuals open to experience have also been found to use humor as a stress coping mechanism and tend to appraise stressful situations as less threatening [30]. A study conducted by Vearing & Mak (2007) in which they examined the relationship between openness dimension of personality and depressive symptoms. They found that there was no significant relationship between openness and depressive symptoms [35].

### 3. Agreeableness vs. Disagreeableness

The third dimension of the Big Five Factors Model of Personality is agreeableness. Agreeableness, like extraversion, also has a social component that refers to a disposition of being friendly, pleasant, considerate, compassionate and cooperative. Agreeable people value solidarity in interpersonal relationships and such inclination usually creates social affiliations which can potentially provide emotional rewards. Agreeableness is concerned with an individual's interpersonal orientation and their quality in thoughts, feelings and actions, so that someone scoring high on agreeableness would be softhearted, good natured, trusting, helpful, forgiving, gullible, and straightforward [28]. Furthermore, there is some evidence that agreeableness is linked to high levels of social support [30].

On the other hand, disagreeableness refers to a disposition of being unpleasant, unfriendly, uncooperative, cynical, and antagonistic. There has not been any conclusive evidence on the relationship of disagreeableness to psychological distress.

In regards to the influence of agreeableness on the development of depressive symptoms no direct relationships were found. However, Vearing & Mak (2007) found that workplace support was negatively related to depressive symptoms [35]. Since a positive correlation between agreeableness and workplace support was found in this study and since agreeableness has often been linked with social support in general [30], it can be deduced that agreeableness does in fact play a role in the development of depressive symptoms although perhaps more indirect.

### 4. Conscientiousness vs. Undirectedness

The fourth dimension of the Big Five Factors Model of Personality is Conscientiousness. Conscientiousness refers to an inclination to be disciplined, structured, systematic, well organized, dutiful, goal orientated, careful and persistent. So that someone scoring high on conscientiousness would be organized, reliable, hard

working, self-disciplined, punctual, scrupulous, neat, ambitious and persevering [28]. Conscientious people usually attain a high level of achievement through diligent planning and disciplined perseverance and are considered reliable and responsible by others. While, undirected people, in comparison, tend to procrastinate and are viewed as disorganized, low in ambition, unreliable and inefficient in highly structured environment. It is also related to fewer daily hassles according to a prospective study of university students. However, contradictory findings do exist - among Norwegian medical students, conscientiousness was found to be linked to increased level of perceived stress [36].

The relationship between conscientiousness and psychological distress has received very little attention in the literature. Although conscientiousness did not predict psychological distress it was found to moderate the relationship between role clarity and psychological distress, such that, in more conscientious individuals, role clarity was less negatively related to psychological distress. Vearing & Mak (2007) explored the impact of conscientiousness in development of depressive symptoms among a sample of 224 Australian employees. Although their results were only moderately significant, conscientiousness was found to have a negative relationship with depressive symptoms. Further they found that the two personality characteristics which did have a significant relationship with depressive symptoms (i.e. neuroticism and conscientiousness) [35].

### 5. Neuroticism vs. Emotional Stability

The fifth dimension of the big five factor model of personality is neuroticism. Neuroticism refers to an inclination to be nervous and tense. Neurotic individuals are more prone to unpleasant emotions such as fear, anger, guilt, sadness and self doubt. They experience negative emotions more frequently partly because of their tendency to worry more, dwell on negative feelings and their lower reaction threshold to aggravating situations [37]; [38]. Emotional stability, on contrary, refers to individuals who have lower emotional reactivity, less mood swings and less negative mood state both in frequency and duration [39]. Therefore, it is understandable why this trait is strongly related with symptoms of depression and anxiety, and broadly to psychopathology [40]; [41]. It was found that personality traits was significant predictor of depression [36]; [42], heightened level of anxiety as well as irrationality in reaction to stressful situations [43]; [44] which makes it especially difficult for neurotic individuals to deal with stress effectively. Therefore, individuals high on neuroticism are at a greater risk of experiencing psychological distress and depressive symptoms.

### Objectives

Following objectives were formulated for the present study:

1. To find out the significant relationship between different dimensions of personality factors and psychological distress.
2. To find out the significant difference between male and female students on different dimensions of personality factors.

3. To find out the significant difference between male and female students in experiencing psychological distress.

## II. METHODOLOGY

**Sample:** For the present study, a sample comprised of 200 (100 male and 100 female) students from senior secondary school of Aligarh Muslim University Aligarh. The random sampling technique was used for collecting data. Age of the subjects ranged between 16 to 19 years, the mean age being 17.6 years. All the students belonged from upper middle class socio-economic background.

**Tools for the study:** The following questionnaires and test were used for the present study.

**Neo Five Factor Inventory (NEO-FFI):** It was developed by Costa and Mc Crae, (1992) [28]. This inventory is used to assess personality factors. The NEO –FFI is a short form of the Revised NEO Personality Inventory. This inventory assesses five dimension of personality namely neuroticism (N), extraversion (E), agreeableness (A), openness (O) and conscientiousness (C). This inventory consisted 60-items with 12 items assessing each personality factors. Each item has to be rated on 5-point scale on the continuum of strongly disagree to strongly agree. The possible scores for each of the items were given according to the scoring key. Responses are added on each dimension to get the scores against each personality factor. Consequently, total scores range from 12 to 60. The reliability of the NEO-FFI scales was ranged from 0.75 for conscientiousness to 0.89 for neuroticism when correlated with NEO Personality Inventory. The internal consistency for the NEO-FFI scales was ranged from 0.89, 0.79, 0.80, 0.75, and 0.84 respectively for each five dimensions i.e. neuroticism, extraversion, agreeableness, openness and conscientiousness.

**PGI-Health Questionnaire N-1:** Psychological distress was measured by PGI Health questionnaire N-1. It was developed by Verma, Wig and Prashad (1985) [45]. It is 38 items questionnaire based on Cornell Medical Index. The items yield scored on A (physical) and B (psychological) sections. (1)The respondent is required to put a tick (☐) against questions he/she agrees with. The number of ticks on section A and B indicate the respective scores which can be then added up to give a total distress score also.

## III. RESULTS

The results of the analyses are given in tables 1 through 3.

**Table-1.** Correlation between different dimensions of personality and psychological distress.

Personality factors	Extraversion	Openness	Agreeableness	Conscientiousness	Neuroticism
Psychological Distress	-.740	-.667	-.642	-.670	.793

\*\*correlation is significant at the 0.001 level.

It is found from above table that there is a significant negative correlation between extraversion dimension of personality and psychological distress. The significant negative correlation is found between other four dimensions of personality (i.e. Extraversion, Openness, Agreeableness and Conscientiousness) and psychological distress. It is found from the table that there is significant positive correlation between neuroticism and psychological distress.

**Table-2:** Comparison between male and female students on different dimensions of personality. N=200 (100 males and 100 females).

Variables	Group	Mean	S.D.	t-value	df	Sig.
Extraversion	Male	26.27	4.92	3.12	198	.01
	female	24.18	4.55			
Openness	Male	24.41	4.55	1.82	198	NS
	female	23.33	4.47			
Agreeableness	Male	25.36	4.95	2.13	198	.05
	female	23.95	4.38			
Conscientiousness	Male	27.59	5.24	2.39	198	.05
	female	25.90	4.74			
Neuroticism	Male	22.68	4.55	2.67	198	.01
	female	24.40	4.55			

Table-2 shows that there is a significant difference between male and female students on four of the five dimensions of personality. Male students scored significantly higher on three dimensions of personality (i.e. Extraversion, Agreeableness and Conscientiousness) as compared to female students. On the hand female students scored higher on Neuroticism as compared to male students.

**Table-3:** Comparison of male and female students on psychological distress scores.

variables	Group	Mean	S.D.	t-value	df	Sig.
Psychological distress	Male	8.57	4.99	2.55	198	.05
	female	10.43	5.32			

It is observed from table-3 that there is a significant difference between male and female students on psychological distress scores. Female students scored significantly higher on psychological distress scores as compared to male students.

## IV. DISCUSSION

The objective of the present investigation was to explore the role of personality factors in experiencing psychological distress among adolescents. A perusal of the results of the present study revealed that there is a significant negative correlation between Extraversion dimension of personality and psychological distress. Our result is supported by earlier studies [33]. They also found that there is a negative correlation between Extraversion and symptoms of depression and anxiety.

It was also apparent from above results that there is significant negative correlation between other three dimensions of personality (i.e. Openness, Agreeableness and Conscientiousness) and psychological distress. It means that those persons who possess these personality characteristics experience less psychological distress as compared to those who lack these characteristics. Earlier studies shown that people higher on Openness, Agreeableness and Conscientiousness live more happy, relaxed, calm, contented, and have better interpersonal relationship with others, in comparison to those who scored low on these dimensions of personality [28]; [30]; [33].

It was also clear from the results that there is a significant positive correlation between Neuroticism and psychological distress. It means that those persons who scored high on this dimension of personality significantly experience more psychological distress. People high on Neuroticism are generally more unhappy, irritated, feel nervousness, are more worried and have more problematic interpersonal relationship in comparison to those persons who score low on this dimension. Perhaps this may be reason that people possessing this negative personality characteristic experience more psychological distress. This finding is supported by numerous previous studies which have shown that neuroticism is an important personality factor associated with elevated stress exposure, more frequent stressful life events, greater sensitivity to stress genesis [46]; [47] and proneness to depression in response to stressors [48]. This finding is also supported by Engen (2008), he also found in his study that there is a significant positive relationship between neuroticism and psychological distress [49].

When gender differences was investigated on above sample, the significant difference was found between male and female students on different dimensions of personality. It is clear from the results that male students scored significantly higher on three dimensions of personality (i.e. Extraversion, Agreeableness and Conscientiousness) as compared to female students. This study was supported by earlier studied conducted by Costa, Terracciano, and McCrae (2001) [50].

Similarly it was also found in this study that female students scored significantly higher on Neuroticism dimension of personality as compared to male students. This result is also supported by previous study [32].

It is apparent from the above results that female students scored significantly higher on psychological distress as compared to male students. This result was supported by a number of previous studies which showed that men and women were different in the experience of psychological distress [51]; [52]. Similarly Mclean, Strongman, & Neha (2007) also found that female students experienced more psychological distress as compared to male students [53].

## V. CONCLUSION

On the basis of above results and discussion it is concluded that four dimensions of personality which are also considered as the positive aspects of personality (i.e. Extraversion, Openness, Agreeableness and Conscientiousness) are negatively correlated with psychological distress, whereas the negative dimension of personality i.e. neuroticism is

positively correlated with psychological distress. Similarly it is also concluded that male students scored significantly higher on three dimensions of personality (i.e. Extraversion, Agreeableness and Conscientiousness) as compared to female students which may be the reason that they have better mental health and positive wellbeing, as well as they experience less psychological distress as compared to female students. One important finding of this study is that female students scored significantly higher on neuroticism dimension of personality as compared to male students which may lead to poor mental health and negative influence on wellbeing. This may be the reason that female students experience more psychological distress as compared to male students.

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