

# MINDFULNESS, TRAIT ANXIETY AND NEUROTICISM AMONG TEENAGERS

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## Abstract

**Aims.** The aim of the present study is to find out the relationship between trait anxiety, mindfulness and neuroticism among teenagers. **Method.** Mindful Attention Awareness Scale, State Trait Anxiety Inventory and Neuroticism Extroversion and Openness Personality Inventory Urdu Version were administered as an assessment measure on a sample of (N=500) along with demographic sheet. **Result.** Results of the study revealed negative relationship between neuroticism and state trait anxiety. Regression results showed, state trait anxiety, mindfulness, and their interaction constituted a significant model that explained 19% variance in neuroticism. Neuroticism had negative relationship with trait anxiety and mindfulness whereas trait anxiety had non-significant negative relationship with mindfulness. Regression findings revealed trait anxiety and mindfulness were significant predictors of neuroticism among school and college students. **Conclusion.** Moreover, results concluded that demographic factors, trait anxiety and neuroticism lead towards mindfulness among teenagers.

**Keywords:** Mindfulness, Trait Anxiety, Neuroticism, Teenagers.

## 1. Introduction

Worldwide, the leading causes of disability-adjusted life years (DALY's) from 10 to 19 years old are unipolar major depression, accidents and falls (Hishinuma et al., 2000). Psychosocial health problems during adolescence, in particular, depression, anxiety and substance misuse are relatively common. Anxiety disorders are said to be universal and recent reviews have found relatively high prevalence rates in different countries (Murad et al., 2003). Educational factors, socioeco-nomic position and body image are known to cause psychological problems in adolescents. Low socioeconomic status (SES) has a significant influence on physical health during childhood and these children are more prone to develop diseases or substance use (Evans & English, 2002).

Adolescence is a critical part of human life in which opportunities arise, freedom beckons, and personalities develop. Also, it is the period when expectations are high, vulnerability cannot be easily admitted and risks are underestimated. As adolescents strive to establish independence, they begin to make decisions, develop patterns of behavior, and take risks that may influence their present and future health (Atav & Spencer, 2002). These pressures can present with various problems like depressive symptoms, motor instability coupled with hyperactivity, attentional deficits, impulsivity and a fall in self-esteem. Prodromal symptoms of depression or anxiety may develop several years before the onset of the disorder. Among adolescents, the risk for the initial onset of depression increases sharply between 15 and 18 years (Hankin et al., 1998).

Anxiety disorders and anxiety symptoms, common among children and adolescents, have also been associated with poor academic achievement and even academic failure (Owens et al., 2012). Studies with children have shown that trait anxiety is also related to executive functioning, particularly working memory and inhibitory control (Ng & Lee, 2015; Ursache & Raver, 2014). What is less well understood is how the association between trait anxiety and executive functioning is related to academic achievement, especially when all three executive functioning components are measured independently.

Neuroticism is a robust predictor of negative emotional out-comes as diverse as depression (Clark et al., 1994), anger-motivated aggression (Wilkowski & Robinson, 2008), anxiety disorders (Hettema et al., 2006), and somatic symptoms (Rosmalen et al., 2007). In understanding relations of

this type, McCrae and Costa (1991) contrasted two personality-processing views. The first instrumental view contends that relations of this type are likely due to the greater frequency of negative life events occurring among individuals high in neuroticism. The second temperamental view contends, instead, that neuroticism predicts higher levels of reactivity to negative events and that such reactivity processes are likely to be the more important factor in understanding neuroticism's outcome-related correlates. Furthermore, and of central importance here, Brown and Ryan reported several findings consistent with the idea that higher levels of mindfulness are associated with lower levels of distress, anger, and anxiety.

Mindfulness is defined as a form of consciousness that involves paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally (Zinn, 2001). Mindfulness training fosters metacognitive processes characterized by the acceptance with equanimity of cognitive processes, sensations and emotions of one-self, enabling a detachment and self-regulation of them. Therefore mindfulness could have important applications in situations of stress and emotional problems in general (Brown et al., 2007) and, particularly, in the management of stress in childhood and adolescence as it is an important factor of risk of developing mental health problems in this vulnerable population, being anxiety one of the most important risk (Grant et al., 2006). The use of mindfulness-based interventions in children and adolescents has recently increased, also showing benefits in both clinical and non-clinical populations. Mindfulness intervention has been modified to be developmentally appropriate for child and youth (Zoogman et al., 2015).

Therefore, the present study aims to examine the relationship between trait anxiety, mindfulness and neuroticism among teenagers, as well as, to assess the mediating role of mindfulness between trait anxiety and neuroticism among teenagers in Pakistan.

## **2. Method**

### **2.1 Research Design**

Correlational research design used in present study. This design helps the researcher to examine the relationship between different variables to complete the research purpose. The aim of the present study was to examine the relationship between trait anxiety, mindfulness and neuroticism among teenagers, as well as, to assess the mediating role of mindfulness between trait anxiety and neuroticism among teenagers in Pakistan. Therefore, the research design of the current research was correlational research design.

### **2.2 Sample**

The target population of the research included adolescents from schools and colleges.

### **2.3 Sample Size and Sampling Strategy**

Purposive sampling technique was utilized to recruit sample. The sample of current research was  $N = 500$  (males  $n = 250$ , female  $n = 250$ ). This was done by researcher on the basis of G-Power analysis.

### **2.4 Assessment Measures**

Research instruments utilized in the current study are:

#### **2.4.1 Demographic Questionnaire.**

Demographic sheet was established by the investigator to gather demographic data about the members. The detail comprised material about, age, gender, family system, and financial wealth of family, residence, socioeconomic status and family background etc.

#### **2.4.2 Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003)**

Mindful Attention Awareness Scale (MAAS; Brown and Ryan, 2003) has 15 items with scoring on six-point Likert scale (1= Almost always, 2= Very frequently, 3= somewhat frequently, 4= Somewhat infrequently, 5= Very infrequently, and 6= Almost never). The higher the score higher will be mindfulness and vice versa. The reported range of alpha reliability is .80 to .90.

#### **2.4.3 State Trait Anxiety Inventory (STAI; Spielberger et al., 1964)**

Spielberger et al., (1964) developed inventory named as, State Trait Anxiety Inventory (STAI) which is a validated 40 items self-report assessment device with scoring on 4 options (1= Not at all,

2= A little, 3= somewhat, 4= Very much so). The STAI is comprised of two separate 20-item self-report scales that measure both state (S-Anxiety) and trait (T-Anxiety) anxiety. The S-Anxiety scale is referred to as Form Y-1 and the T-Anxiety is referred to as Form Y-2. We use STAI second Form Y-2 for measuring trait anxiety consisting of items 21-40. The reliability of trait-anxiety scale ranged from .65 to .86, whereas the range for the State-anxiety scale is .16 to .62.

#### **2.4.4 Neuroticism Extroversion and Openness Personality Inventory Urdu Version (NEO-PI; Goldberg, 1992)**

NEO-PI UV was originally developed by Goldberg (1992) but in recent study the Urdu translated version of this scale will be used (NEO-PI UV; Perveen, 2010). It has 133 items with scoring on five-point likert scale (strongly agree=1, agree=2, undecided=3, disagree=4, and strongly disagree=5). It has 26 items on neuroticism subscale, 16 items of extraversion, 21 items of agreeableness, 31 items of conscientiousness and 35 items on openness to experience subscale. Items which measure neuroticism are (2, 3, 4, 5, 8, 15, 17, 21, 24, 30, 31, 33, 37, 41, 43, 44, 45, 48, 62, 64, 68, 70, 99, 109, 112 and 116). The reported value of reliability for neuroticism is 0.717 (Mubarik, 2013).

### **3. Results**

The current study was conducted on the sample of school and college students (N = 500). Statistical methods used for the analyses of the present study include Cronbach alpha reliability coefficient for psychometric properties, Pearson Product Moment Correlation analyses and Hierarchical Regression analysis were applied on the data through statistical package for social sciences (SPSS 26), to address objectives and hypotheses of the study. The detail description of the results is given below

**Table 1**

*Alpha reliability Coefficient of Mindful Attention Awareness Scale (MAAS), State Trait Anxiety Inventory (STAI), and Neuroticism Extroversion and Openness Personality Inventory Urdu Version (NEO-PI UV, N=500).*

*Note.* MAAS= Mindful Attention Awareness Scale; STAI= State Trait Anxiety Inventory; NEO-PI UV= Neuroticism

Scale	N	M	SD	$\alpha$
MASS	15	54.72	10.498	.647
STAI	20	47.96	7.571	.681
NEO-PI	26	76.43	10.990	.630

Extroversion and Openness Personality Inventory Urdu Version.

The result of table 1 shows that Alpha reliability coefficient for Mindful Attention Awareness Scale (MAAS), State Trait Anxiety Inventory (STAI), and Neuroticism Extroversion and Openness Personality Inventory Urdu Version (NEO-PI UV) are .64, .68 and .63 respectively. It indicates that these scales have satisfactory reliability value.

**Table 2**

*Correlation Coefficient among Mindful Attention Awareness Scale (MAAS), State Trait Anxiety Inventory (STAI) and Neuroticism Extroversion and Openness Personality Inventory Urdu Version (NEO-PI UV; N=500).*

Scales	1	2	3	<i>M</i>	<i>SD</i>
1 MASS	-	-.074	.30**	54.72	10.49
2 STAI		-	-.14**	76.43	10.99
3 NEO-PIUV			-	47.96	7.57

*Note.* MAAS= Mindful Attention Awareness Scale; STAI= State Trait Anxiety Inventory; NEO-PI UV= Neuroticism Extroversion and Openness Personality Inventory Urdu Version. \*\* $p < .01$ .

Table 2 indicates that Neuroticism Extroversion and Openness Personality Inventory Urdu Version have negative relationship with State Trait Anxiety Inventory and Mindful Attention Awareness Scale whereas; State Trait Anxiety Inventory is non-significantly associated with Mindfulness Attention Awareness Scale.

**Table 3**

*Hierarchical Multiple Regression Analyses Predicting Neuroticism from Mindfulness and State Trait Anxiety (N = 500).*

Predictor	$\Delta R^2$	$\beta$
Step I	.02	
MAAS		-.14*
Step II	.08	
MAAS		-.12*
STAI		.29**
Step III	.09	
MAAS		-.12**
STAI		.29*
MAAS* STAI		.09**
Total $R^2$	.19	

*Note.* MAAS= Mindful Attention Awareness Scale; STAI= State Trait Anxiety Inventory; NEO-PI UV= Neuroticism Extroversion and Openness Personality Inventory Urdu Version. \*\* $p < .001$ .

Table 3 depicts significant negative relationship between mindfulness and neuroticism ( $\beta = -.14$ ,  $t = 156$ ,  $p = .001$ ) where the former explained about 2% variance in the later ( $\Delta R^2 = .02$ ,  $\Delta F(1,498) = 10.248$ ,  $p = .001$ ). In the second step mindfulness also predicted neuroticism ( $\beta = -.12$ ,  $t = 164$ ,  $p = .001$ ) and explained an additional variance of 8% in it ( $\Delta R^2 = .08$ ,  $\Delta F(1,497) = 48.00$ ,  $p = .001$ ). Finally, in the third step, the interaction term of mindfulness and state trait anxiety significantly predicted neuroticism in positive direction ( $\beta = .29$ ,  $t = 164$ ,  $p = .001$ ) and explained an additional variance of about 9% ( $\Delta R^2 = .09$ ,  $\Delta F(1,496) = 4.88$ ,  $p = .001$ ).

#### 4. Discussion

Findings of the present study revealed mindfulness has significant positive relationship with neuroticism. Results also found has significant positive relationship with neuroticism among adolescents. Regression findings revealed mindfulness and trait anxiety were significantly predicted neuroticism. Previous literature supported the findings of the present study.

Keng et al., (2011) observed that psychological signs decrease and improvement in emotionality is the result of mindfulness. In a same manner, results of the study pointed that mindfulness is related with all the traits which are stronger in nature and relationship like neuroticism, neurological and psychological symptoms and mind. Many previous researches avoid findings with conscientiousness but output later on showed it had positive relationship too (Tamara

& Giluk, 2009). Psychological well-beingness is observed with improvement in mindfulness (Brown et al., 2003). Role of neuroticism and mindfulness and its differences in anticipating nervousness, apprehensions and other traits of individual were studied (Kong, 2015).

Menon et al., (2014) study showed that individuals who has strong rules and regulations implementations in their lives and those who has strong emotional balance personality and determined mind are seen more mindful and attentive as compare to the others and it shows their personality, still some other researchers are trying to find out other results with bigger population in different areas.

A meta-analysis done in order to find relation of anxiousness with age and social issues for this purpose adults and children were observed as a subject, results indicated that danger environmental factors increase the level of anxiousness whereas economic factors have less effect (Twenge, 2000). Study showed that attention and more focused concentration of mind have relation with neuroticism, prolong sadness and temporary anxiousness. Those who have high level of mindfulness concentration have low level of temporary anxiousness, neuroticism and sadness (Barnhofer et al., 2011).

Arnett (2007) Study demonstrates that 11 to 19 years of students of secondary and higher secondary school with sample population comprised of girls and boys were asked to show their response on subscale of neuroticism, state trait anxiety and depression. Results demonstrate that boys showed higher and positive flexibility and girl students. Girls showed more neuroticism and nervousness than boys students. Study also showed that students of secondary school have high neuroticism and characteristic anxiety.

## **Conclusion**

The findings reinforce the idea that mindfulness is particularly beneficial among adolescents. By contrast, to the extent that one is not prone to distress (i.e., at low levels of neuroticism), mindfulness appears to be less consequential. The findings of present study encourage conceptual replication efforts, a focus on the cognitive-affective mechanisms posited to underlie individual differences in mindfulness, and extensions of our interactive model to other traits (e.g., impulsivity) thought to be associated with maladaptive habits. If we are correct, mindfulness may play a broad role in moderating trait-linked vulnerabilities of multiple types such as anxiety. In any case, the results reinforce the important idea that neuroticism is a vulnerability factor for negative emotional outcomes, but not an invariant one. Future study should be conducted on these factors to explore more generalized results.

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