DOES PERSONALITY TRAITS PREDICT PERCEIVED STRESS?

Sandhyarani Moirangthem

Guest Faculty,
Department of Psychology, Manipur University
Imphal, India, Pin- 795003
Email: smoirangthem31@gmail.com

ABSTRACT

Recent research suggests of potential relationship between perceived stress and personality traits as young adults are inclined to experience tremendous pressure resulting from career, pursuing higher studies, family responsibilities etc. In the present study, attempt was made to examine whether personality traits predict the level of perceived stress in young adults. Data were collected from150 sample (male=75; female=75) from Ph.D. scholars at university and students at B.Ed. teacher-training colleges. The mean age of the sample was 27.78 years (SD=3.26). Perceived stress scale and big-five inventory were used to measure perceived stress and personality traits respectively. Findings revealed that there is significant positive relationship between neuroticism and perceived stress. However, conscientiousness and agreeableness were found to have significant negative relationship with perceived stress. Multiple linear regression analysis revealed that three predictors (personality traits) explained 23.9% of the variance. Conscientiousness, agreeableness and neuroticism significantly predicted perceived stress. It was found that conscientiousness and agreeableness negatively predicted perceived stress whereas neuroticism positively predicted perceived stress.
KEYWORDS: personality, personality traits, perceived stress, young adults,

INTRODUCTION

Personality is defined as the unique, stable characteristics of emotion, values, beliefs and attitude that differentiates individual from one another (Digman, 1990; Goldberg, 2013). There are various personality theories to explain the complex human nature and the Big Five model of personality is one of the most popular models of personality theories. According to Big Five model of personality, the human personality consists of five factors: Openness to experience,

Conscientiousness, Extroversion, Agreeableness, and Neuroticism (Digman, 1990; Goldberg, 2013; Carver & Scheier, 2013).

Openness to experience may be defined the tendency of having an active imagination, curios mind and unconventional ways of doing things. Individuals with a high degree of openness to experience have a tendency to accept new things easily, have a strong interest in life, and display the love for thrill-seeking adventures (Aluja, Garcia, & Garcia, 2003). Conscientiousness reflects the character tendency to comply with societal norms, rules, and principles (Costa, McCrae & Dye, 1991). It can be defined as the degree of efficiency, dutifulness, self-discipline and organizing capability. Researchers have shown that conscientiousness is associated with a strong tendency for emotional self-control and preventive regulatory focus (Cabanac, 2002; Tsuchiya & Adolphs, 2007). Extraversion is one of the main personality characteristics that indicate the degree to which an individual wants to interact with others and attract other's attention. Extraverts are believed to derive pleasure and satisfaction from social interactions and activities through which they best express themselves. It represents the characteristics nature of outgoing, enthusiastic, energetic, assertiveness, sociability, talkativeness and a tendency to seek stimulation in the company of others (Goldberg, 1990; Costa, McCrae, & Dye, 1991). Agreeableness may be defined as the ability to maintain an easygoing and harmonious relationship with others. It reveals the forgiving nature, straightforwardness, altruistic, compliant and tender-mindedness, and represents an individual's strong disposition to conform to others (Costa, McCrae, & Dye, 1991; Hong, Paunonen, & Slade, 2008). Neuroticism is defined as the degree of emotional stability/impulse control; the tendency of emotional stability, such as anxiety, irritability, depression, self-consciousness (shyness), impulsiveness (moody) and proneness to psychological stress (Friedman & Schustack, 2016). Individuals with high level of neuroticism are sensitive, nervous, self-conscious, and impulsive as they are found to cope poorly with stressors due to emotional instability and poor impulse control (Dwan & Ownsworth, 2017).

Stress may be defined as the subjective experience/feeling of strain and pressure as it is considered as a type of psychological pain (Simandan, 2010). It can be experienced when we perceived something as threatening and the available resources for coping with threatening situations are not enough to meet what the circumstances demand. In today's time, stress often stems from being unable to cope with life demands because of the lack of resources (financial

constrain or lack of social support/personal resources). According to Lazarus and Folkman (1984), stress can be considered as a broad, general construct which consists of various subtypes, such as time stress (pressure), feelings of stress (perceived stress), and physiological stress. Perceived stress depends on the degree of harmony between an individual and his/her environment, implying that an individual experiences stress only if a particular situation is perceived to be threatening (Jong & Emmelkamp, 2000).

Past studies on personality traits and perceived stress

Studies indicate that the variation in personality traits of an individual can predict the different responses to stress (Sarason & Sarason, 2005). Lu (1994) provided evidence that extroversion was negatively associated with stress felt at university, whereas neuroticism was positively associated with it. Mroczek and Almeida (2004) found a significant positive correlation between perceived stress and levels of neuroticism, whereas extraversion was significantly negatively correlated with perceived stress. Ebstrup et al. (2011) found a negative relation between perceived stress and four personality traits: extraversion, agreeableness, conscientiousness, and openness to experience, and a positive relation with neuroticism. According to Schneider et al, (2012) neuroticism is associated with a high risk of stress, unlike extroversion and openness to experience, which are associated with a low risk of stress. Another group of researchers (Fornés-Vives et al., 2012; Verduyn & Brans, 2012; Mazé & Verlhiac, 2013) also provided evidence that neuroticism predicts a high level of perceived stress and depression, however, extroversion negatively predicts depression. Two recent meta-analyses (Chu et al., 2015a; Chu et al., 2015b) found that agreeableness, extroversion and openness to experience negatively predict the psychological answer to stress, whereas conscientiousness predicts it positively. Saleh et al. (2017) also provided evidence that conscientiousness negatively predicts perceived stress, whereas extraversion and neuroticism predict it positively.

Why young adults?

Individuals in the age range of 25 to 40 years often go through various life changes in terms of jobs, career, education, personal and family roles and responsibilities. One may have to tackle the mounting stress and pressure over higher studies or finding the right career, while some may have to deal with role change from singlehood to parenthood. The desire to have substantial amount of resources for living a decent life in this age range creates enormous psychological

stress on an individual. Such life changes are, to a large extent, related to one's personality traits because the individual make up of each person differ from one another. The ability to have emotional control, being outspoken, outgoing, open to experience, dutifulness and agreeableness, all such characteristic traits of an individual would help to control or elevate the level of perceived stress.

SIGNIFICANE AND RATIONALE OF THE STUDY

As far as research data on Indian population is concerned, there is lack of research in this specific area of research as one need to ask whether the 'Big Five' personality traits predicts the level of perceived stress, particularly on populations that require preventive intervention the most, such as students at university /teacher training colleges. Past studies have confirmed the significant relationship between personality traits and perceived stress. It is important to know whether openness to experiences, conscientiousness, extraversion, agreeableness and neuroticism positively or negatively predicts the level of reported perceived stress. Therefore, this study aims to examine the relationship between personality traits and perceived stress, and find out which personality traits negatively or positively predicts perceived stress in the young adult age group of 25 to 40 years. Findings from this study might be able to throw light on the individual differences of personality traits that relates to felt stress as it can help individuals to acknowledge or work on improving their personal strengths/shortcomings according to their individual needs for a healthy living.

OBJECTIVES

The present study aims to examine whether personality traits predict the level of perceived stress in young adults.

HYPOTHESES

Based on previous research studies and the present study's research objectives, the following hypotheses were framed-

1. There will be significant correlation between perceived stress and personality traits (openness to experience, conscientiousness, extraversion, agreeableness and neuroticism).

2. There will be significant prediction of perceived stress by openness to experience, conscientiousness, extraversion, agreeableness and neuroticism.

METHODS

Research Design

The present study is a quantitative research using correlational research design with survey method. Random sampling was used for drawing the sample.

Sample

One-hundred fifty samples were randomly selected from Ph.D. scholars at Manipur University and student-teachers at two B.Ed. colleges in Imphal, Manipur. The age range of the sample was 25 to 40 years (Mean age=27.78 years, SD=3.26). Gender of the sample in the present study was equally distributed (Male=75; Female=75).

Tools Used

Perceived Stress Scale (Cohen, Kamarck & Mermelstein, 1983): This scale measures the degree to which situations in one's life are perceived as stressful. It is one of the most widely used psychological instruments for measuring the perception of stress. It has fourteen items scored on five-point scale ranging from "almost never" to "very often" and the score ranges from 0 to 56. High score on this scale indicates high level of perceived stress. Researched showed that the alpha coefficient reliability for the PSS was 0.85 and 0.86 for college student sample and smoking cessation sample respectively (Cohen & Williamson, 1988).

Big Five Inventory (John & Srivastava, 1999): This scale consists of forty-four items to measure five dimensions of personality i.e. Openness (10 items), Conscientiousness (9 items), Extraversion (8 items), Agreeableness (9 items), and Neuroticism (8 items). All the items are scored on five-point scale ranging from "disagree strongly" to "agree strongly". There are in total 44 items, out of which 28 items are positive and 16 items are negative (reverse scored). The score range for Openness is 10 to 50. Similarly, score range for Conscientiousness, Extraversion, Agreeableness and Neuroticism is 9 to 45, 8 to 40, 9 to 45 and 8 to 40 respectively. The obtained score for each personality dimension reveals the five personality traits of an individual. In the original BFI, the reliability coefficients of the five factors of personality are 0.88, 0.79, 0.82, 0.84 and 0.81 for Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness respectively.

Procedure of Data Collection

Data were collected from Ph.D. scholars at Manipur University, and student-teachers at two B.Ed. colleges. Prior permission was taken from the head of the departments at the university and the college principals. They were informed about this study and appointments were sought before approaching the scholars/teacher-students for data collection. Informed consent was obtained from the participants for data collection. Thereafter, brief instruction about the questionnaire was provided and the test administration took 15 to 20 minutes approximately. Participants were informed that confidentiality would be maintained and their test results would be keep in safe custody and used for research purpose only. The questionnaires were administered in small group setting of 4 to 8 participants on an average, after making necessary arrangements. Responses were carefully checked and scored accordingly for statistical analysis.

Statistical Analysis

Data were statistical analyzed after entering in SPSS 21 version. Various statistical tools such as Mean, SD, Pearson's product-moment correlation, and multiple linear regression were used for testing the hypotheses framed in the present study.

RESULTS AND DISCUSSION

Descriptive statistics (Mean and SD) of perceived stress score and personality traits score were examined. Pearson's product moment correlation revealed that openness (r=-.119) and extraversion (r=-.100) were negatively correlated with perceived stress, however both the correlation was not significant.

Table 1: Pearson's correlation between perceived stress and five personality traits

Variables	Mean	SD	PSS	BFIO	BFIC	BFIE	BFIA	BFI
PSS	26.80	5.43	1					
BFIO	33.27	4.40	-.119	1				
BFIC	29.99	4.44	-.332**	.336**	1			
BFIE	31.79	5.71	-.100	.305**	.557**	1		
BFIA	25.10	4.25	-.379**	.242**	.308**	.105	1	
BFIN	23.71	4.66	.353**	-.103	-.431**	-.246**	-.261**	1

N=150, **$p<.01$; *$p<.05$

PSS=Perceived Stress Scale; BFIO=Big Five Inventory Openness; BFIC=Big Five Inventory Conscientiousness; BFIE=Big Five Inventory Extraversion; BFIA=Big Five Inventory Agreeableness; BFIN=Big Five Inventory Neuroticism

Conscientiousness (r=-.332, p<.01), agreeableness (r=-.379, p<.01), and neuroticism (r=.353, p<.01) were found to have significant, positive relationship with perceived stress. Thus, hypothesis 1 stated as 'There will be significant correlation between perceived stress and personality traits (openness to experience, conscientiousness, extraversion, agreeableness and neuroticism)' is partially accepted as only three personality traits established significant correlation with perceived stress.

Table 2: Multiple linear regression analysis using perceived stress as the dependent variable and five personality traits as the independent variables

	DV: Perceived Stress		
	F(5, 144)= 9.022***		
Personality Traits	Beta	Standard error of Beta	*p*
Openness	.014	.098	.889
Conscientiousness	-.261	.120	.031**
Extraversion	.092	.085	.281
Agreeableness	-.345	.101	.001**
Neuroticism	.251	.095	.009**

N=150, * $p < 0.05$, ** $p < 0.01$, ***$p < 0.001$

Multiple linear regression analysis was used to test if the personality traits significantly predicted participant's ratings of perceived stress. The results of the regression indicated that three predictors explained 23.9% of the variance (R^2=.239, F(5,144)=9.022, p<.001). It was found that three personality traits, namely conscientiousness, agreeableness and neuroticism significantly predicted perceived stress. Conscientiousness (β = -.261, p<.01) and agreeableness (β = -.345, p<.01) negatively predicted perceived stress whereas neuroticism (β =.251, p<.01) positively predicted perceived stress. Thus, hypothesis 2 stated as 'There will be significant prediction of perceived stress by openness to experience, conscientiousness, extraversion, agreeableness and neuroticism' is only partially accepted since conscientiousness, agreeableness and neuroticism were found to significantly predict perceived stress.

Findings of this study showed that individuals with high degree of conscientiousness and agreeableness would report lower perceived stress. It can be interpreted that individuals with greater tendency to comply with societal norms and principles would report lower perceived stress as s/he maintains self-discipline and dutifulness. People with high conscientiousness are well-known for their efficiency and organizing skills, and such type of personality trait would not easily succumb to felt stress in most circumstances. On the other hand, characteristic traits of agreeableness such as easygoing, forgiving nature, and harmonious relationship with others would also imply lower perceived stress score as found in the present study. Findings of significant negative correlation between perceived stress and agreeableness, and between perceived stress and conscientiousness is supported by Ebstrup et al. (2011) as they also reported of negative correlation between perceived stress and agreeableness, conscientiousness. The significant negative prediction of perceived stress by conscientiousness and agreeableness is coherent with previous research finding as Saleh et al. (2017) also provided evidence that conscientiousness negatively predicts perceived stress. However, Chu et al., (2015a) and Chu et al., (2015b) found that agreeableness negatively predict stress, whereas conscientiousness predicts it positively.

Neuroticism and perceived stress were found to be positively correlated in the present study and this is supported by earlier findings that claimed of a significant positive correlation between perceived stress and levels of neuroticism (Mroczek & Almeida, 2004; Ebstrup et al., 2011). According to Friedman and Schustack (2016), greater neurotic tendency leads to increased

experience of anxiety, irritability, self-consciousness (shyness), impulsiveness (moody) and proneness to psychological stress. In addition, neuroticism was found to be significant positive predictor of perceived stress. This indicates that individuals high on neuroticism would also report higher perceived stress. There are substantial amount of researches (Fornés-Vives et al., 2012; Verduyn & Brans, 2012; Mazé & Verlhiac, 2013; Saleh et al., 2017) which support the findings of this study that neuroticism positively predicts a high level of perceived stress.

IMPLICATIONS

The established relationship between perceived stress and the personality traits would help the population, especially university students and teacher-students who are in particular need to counter stress, to reconsider these personality dimensions as a priority to work on effective stress prevention strategies. This implies that individuals will require working on their weaknesses to successfully reduce the level of reported stress by improving psychosocial skills and adequate emotional management.

SUGGESTIONS FOR FURTHER RESEARCH

- o It is suggested that similar study can be conducted on larger sample, so that the findings can be generalized to the population.
- o Cross-cultural examination of personality traits and perceived stress across different states or cities can provide better understanding on its variation.
- o Similar studies can be conducted using different personality measurement tools such as NEO-FFI, 16 PF, EPQ etc.
- o Similar studies on perceived stress and personality traits can also be conducted across age or gender.

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