

Personality traits and perceived stress among Albanian youth

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Abstract

Background Individual characteristics such as personality traits are particularly relevant in understanding stress appraisal. The purpose of the present study was to investigate the associations between Big Five personality traits and perceived stress among Albanian young adults. Methodology Participants were 255 Albanian young adults (33.8% men and 66.2% women) aged between 20 and 35 years old. The measuring instruments were the Brief Big Five Inventory (BFI) and the Perceived Stress Scale (PSS). Findings Results showed that personality traits including neuroticism, extraversion, conscientiousness and agreeableness were significantly correlated to perceived stress. The regression model with stress as the dependent variable, and age, gender and the five personality traits as independent variables, accounted for 33.7% of the variance in perceived stress levels. However only the trait of neuroticism was a significant predictor in the model. These results have important implications in terms of stress management programs among Albanian youth.

Keywords: *perceived stress, personality traits, Albanian youth*

Introduction

Stress represents one of the most researched topics in the field of health psychology. This theoretical concept cuts across multiple disciplines including health care, education, economics etc. (Ogden, 2007). Stress has been defined from the perspective of external environmental stimuli, multiple behavioural responses or as the interaction between environmental and personal/behavioural variables. Within the great variety of definitions, probably the most widely accepted one is that from Lazarus and Folkman (1984), defining stress as the transaction between individuals and their environment. As they put it in their influential work, stress is the “particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being” (Lazarus & Folkman, 1984, p. 19).

Studies on stress and stress management from the Albanian context have suggested that this specific topic is an important issue for concern. Indeed considerable stress levels have been reported across several studies (Shkullaku, 2013) and there are even claims from Institute of Public Health suggesting stress as an important causal factor in the increasing incidence of cardiovascular diseases in Albania (Albanian Institute of Public Health, 2015). In this context, stress appraisal, influential factors as well as stress management all represent important issues of investigation.

The theoretical conceptualization of stress but also multiple empirical studies suggest the relevance of individual characteristics such as personality in understanding stress appraisal (Kessler, Price & Worthman, 1985). Indeed studies using the Big Five theory of personality traits have shown associations between specific traits and stress levels. For instance, the trait of Neuroticism is associated with persistent and recurring stress episodes during an individuals' life course (Kendler, Gardner, and Prescott, 2003; Magnus, Diener, Fujita, and Pavot, 1993; Saudino, Pederson, Liechtenstein, McClearn, and Plomin, 1997). Conversely Afshar, Roohafza, Keshteli, Mazaheri, Feizi and Abibi (2015) have reported that extraversion, conscientiousness, agreeableness and openness to experience might all be considered as protective factors in stressful situations.

Despite the fact that the personality structure is similar in different cultures, cultural connotations of 'positive' or 'negative' traits are present (John & Srivastava, 1999). Therefore some traits might be more favoured than others in specific cultures, consequently playing different roles as either protective or risk factors in terms of stress. For instance, in more conservative social contexts, traits such as openness to experience might have a more negative connotation and consequently

be associated to higher rather than lower stress levels. Research studies on personality traits, specific cultural connotations, or associations between traits and stress in the Albanian context are missing. Therefore the aim of the present study was to estimate personality traits and reported stress levels among Albanian youth in order to determine possible associations. More specifically the study tried to determine which personality traits might be classified as risky or protective factors for stress appraisal. Results of this study have implications in the context of informing specific stress management programs among Albanian youth.

Theoretical background

Theories of stress

Theoretical models aiming to define and explain stress are numerous and approach the concept from different perspectives. One of the earliest models was the Cannon's "acute stress response" or as most commonly known the "fight or flight" response (Cannon, 1932). Cannon focused on physiological reactions to stressful events including increased heart rate, breathing, increased blood sugar, etc. He considered stress as an adaptive response as it enables the individual to manage a threatening event; nonetheless Cannon also argued that constant exposure to stressors may cause psychological, emotional and medical problems in the long term.

Along the same lines, Hans Selye (1956, 1976, 1982) provided convincing evidence of strong links between constant stress and physical illness, while also making a conceptual distinction between the term 'stressor' as a stimulus and 'stress' as a response. Later on, in the 1970s, Lazarus shifted the focus towards psychological processes such as perception and interpretation, clearly distinguishing stress response in animals from that in humans (Cohen and Lazarus, 1973, 1977; Lazarus, 1975; Lazarus and Folkman, 1987). According to Lazarus high level cognitive abilities and particularly the ability to think and evaluate future events increase stress vulnerability among human beings. Indeed future stressors such as future plans, deadlines, anticipated threats etc. can prove to be as harmful as present ones (Brannon et al., 2013). Hence in Lazarus's view, the interpretation of stressful events is more important than the events themselves. For example, job promotion may represent an opportunity and challenge for one person, but a big problem for another (Brannon et al, 2013). According to Lazarus (1984, 1993), the effect that stress has on the individual depends on associated perceptions of threat, vulnerability and perceived ability to cope with the stressful event. His emphasis on psychological evaluation of stressful events has received much research support and

remains one of the most influential theoretical models of stress response behaviour (Arnold, 1960, 1984; Chang, 1998; Dewe, 1992; Hemenover and Dienstbier, 1996; Levine, 1996; Peeters, Buunk, and Schaufeli, 1995; Terry, Tonge, and Callan, 1995; Lazarus and Folkman, 1984).

These early theoretical concepts of stress have been further elaborated in *The transactional model of stress* (Lazarus and Folkman, 1984), which specifies three different types of appraisal including *primary appraisal*, *secondary appraisal* and *reappraisal*. *Primary appraisal* occurs upon the first impact with the stressful event, as the stimulus is appraised in terms of its' effects on physical or psychological well-being, and might be classified as positive (not stressful), neutral (irrelevant) or negative (stressful). Neutral or irrelevant events are those which apparently do not affect individuals' well-being, while positive events are appraised as having a positive impact on well-being. The perception that the individual is in control of the specific event/situation is associated with positive self-regulation and adaptation (Folkman, 1984). However if an event is appraised negatively, it is usually associated with perceptions of damage/harm, loss, threat, or challenge (Lazarus 1993). Threat is considered as the forerunner of the damage while challenge as an individual's self-confidence in his resources to overcome the toughest demands. Research indicates that the perception of threat or challenge makes a difference for performance; indeed perception of challenge leads to better performance as compared to perceptions of threat (Gildea, Schneider, and Shebilske, 2007).

After the primary appraisal of the event, individuals need to evaluate their abilities and resources to control or cope with situations evaluated as harm, threat or challenge, i.e., they engage in *secondary appraisal*. When people believe they can successfully change the situation stress is reduced. On the contrary if the situation is perceived as uncontrollable, and individuals think they lack the ability to cope with it, stress is enhanced. However, Lazarus emphasizes that people constantly change the appraisal based on the access they have over the new information; hence the third process, namely 'reappraisal' enables individuals to shift perspectives in the process of managing stress (Brannon et al, 2013).

Moving on towards a different level of analysis, there is a whole line of research focusing exclusively on physiological, behavioural, emotional or cognitive responses to stress. *Physiological consequences* of stress include a long list of negative outcomes such as decreased immune function, increased cholesterol and adrenaline, increased blood pressure, increased heart rate, respiratory changes, sweating, and stomach disturbances. Indeed studies have found strong relationships between stress and several diseases such as heart disease, ulcers, migraines, allergies etc. (Ogden, 2007). *Behavioural responses* include a great variety of behaviours such as increased use of alcohol, coffee, tobacco,

drugs, aggressive or apathetic actions, decreased sexual interest and impotence, hyperactivity, speech problems, increased/decreased appetite, postponing duties/responsibilities/decisions etc. These behavioural responses are in turn associated with negative health consequences and also the development of several diseases (Cohen and Williamson, 1988; Conway, Vickers, Ward and Rahe, 1981).

Emotional responses to stress are also very diverse, including anxiety, fear, restlessness, loneliness, sadness etc., and might even lead to psychological disorders such as post-traumatic stress disorder, panic attacks, phobia, generalized anxiety disorder, or depression. The negative emotional state in turn influences biological processes and behavioural patterns that increase the risk of developing several diseases (Cohen et al., 1986; Krantz, Glass, Contrada, and Miller, 1981; Cohen, Tyrrell and Smith, 1993). Finally, *cognitive responses* to stress include memory problems, concentration difficulties, disorganized thinking, inflexible/non-creative thinking, poor problem solving skills etc. (Selye, 1956; Cohen and Williamson, 1988 ; Grasha and Kirschenbaum, 1986; Sarafino and Smith, 2011; Ogden, 2004, 2007). Indeed many studies have reported negative associations between stress levels and academic performance among students (Shkullaku, 2013). Emotional and cognitive dimensions are closely related within the stress response; indeed studies show that positive emotions are closely related to academic achievement and better problem solving skills (Fredrickson 2001; Pekrun, Goetz, Perry, Kramer, Hochstadt and Molfenter, 2004).

As regards sources of stress, some of the most basic and common sources according to the American Psychological Association (2011) include economic status (poverty), work (job changes, unemployment, increased responsibility), health status (chronic or acute illness), family responsibilities, (work, school, children, family, society), personal concerns about health, major life changes (loss of a loved one, divorce, diseases in the family, natural disasters); everyday life, etc. According to Lazarus, De Longi, Folkman and Gruen, (1985), a considerable level of stress is provoked by daily hassles such as time pressure, frustrations, conflict, financial problems, communication problems, decision-making etc. Finally positive events such as marriage, achievement, pregnancy, birth, celebrations, holidays, etc. can also cause stress (or eustress as defined by Selye). In all the above cases it must be noted that stress responses are individual (e.g., marriage might provoke different levels of stress in different individuals) and the response is largely influenced by personality characteristics (Lazarus and Folkman, 1984). Hence personality traits do not only determine stress levels but also coping strategies (Connor-Smith and Flachsbart, 2007). The following section discusses the theoretical concept of personality focusing on one of the most influential and well-supported models, the Big Five Personality trait model.

Personality and Big Five personality traits/ Five-factor Model

Personality has been defined as a set of general and consistent patterns of behaviours, thoughts and feelings, which clearly distinguish between individuals (Pervin, Cervone and John, 2005, p. 6). Different theoretical approaches provide different perspectives on personality. Psychodynamic theories emphasize the role of the unconscious mind and share the view that personality is largely determined by unconscious processes (Morris and Maisto, 2008). Several propositions of the psychodynamic theory on the personality have been supported by research evidence (Western, 1998). For instance experiments in cognitive psychology have found that cognitive activities including thoughts, feelings, and motivations are unconscious and therefore people can behave in ways they do not even understand. Moreover, childhood experiences (many of which might be forgotten) do in fact influence future personality development as well as explain variations in personality traits (Ewen, 2014).

Personality trait theorists such as Gordon Allport (1937) have focused on the identification of specific personality dimensions. Allport and Odbert (1936) identified as many as 18,000 words which might be used to describe personality in English dictionaries. From this list, they reduced the number to about 4,500 descriptive-personality adjectives that they considered as relatively permanent traits. After removing synonyms or related words Allport reduced the number of personality characteristics to around 200 which was still quite a long list. Nonetheless, in terms of trait theories, Allport's contribution is still considered a very important early contribution (McCrae and Costa, 2003). In providing a conceptual definition of traits, Allport (1937) referred to the internal disposition of individuals, which determines his unique style of behaviour. Hence traits are manifested in the individual's response to situations and are characteristics of that unique person. These features are expressed with some frequency and intensity across a wide range of situations; in other words traits are stable and consistent. Allport also believed that while traits might be common to many people, every particular personality has a unique trait combination.

The identification of basic personality traits has been the concern of several researchers including Raymond Cattell, who used factor analysis to identify what he called core traits (Ewen, 2014). Core traits provide stability of behaviour and organize secondary characteristics (Cattell, 1946). Thus Cattell (1950, 1959) grouped the 200 traits onto 16 factors or core traits such as alertness, warmth, emotional stability, sensitivity, perfectionism, tension etc.

The 16 factors proposed by Cattell were further reduced to three 'super' traits by Hans Eysenck (1975) who suggested that all individuals could be classified in the continuum between neuroticism-emotional stability, extraversion-introversion

and psychoticism-impulse control. Individuals with high neuroticism tend to be emotionally unstable. Whereas individuals with a low neuroticism trait are more persistent and emotionally restrained and also less likely to experience major emotional fluctuations/ large swings in emotion or overreact to frustration and disappointment. The extraversion-introversion dimension is similar to Jung's construct, except that Eysenck defines it in terms of various traits and not libido. The extravert dimension includes characteristics such as sociability, warmth and energy; the introvert individual on the other hand is reserved, restrained, silent and contemplative. Finally psychoticism refers to traits such as aggression, hostility, impulsivity and sensation seeking; suggestions have been made of including creativity in this dimension as well.

Eysenck's model has been further elaborated by Costa and McCrae (1992), into the most well-known model of personality traits: the Five-Factor Model of personality or as most commonly known, the Big Five. According to this model, the five core dimensions of personality include Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness to Experience. Each dimension is composed of several specific traits; for instance the trait of *extraversion* encompasses an energetic approach to the social and material world and includes characteristics such as being confident, sociable, active, outgoing, enthusiastic, energetic, as well as adventurous. Conversely low scores in Extraversion, are indicative of an individual who is reserved, shy, silent, withdrawn, and quiet. The trait of *Agreeableness* refers to a socially-oriented individual who is forgiving, not demanding, warm, not stubborn, not show-off and sympathetic. The individual high in Agreeableness, is helpful, appreciative, affectionate, generous, trusting and good-natured (John, 1990) whereas the opposite characteristics describe an individual low in Agreeableness (e.g., unfriendly, irritable, unkind, cruel, and ungrateful). The trait of *Conscientiousness* is based on the degree of internalization of social control and goal oriented behaviour. Individuals scoring high in conscientiousness are efficient, organized, hard-working, reliable, responsible, and precise (Costa and McCrae, 1992). Conversely low scores in Conscientiousness are characteristic of individuals who are careless, disorganized, frivolous, irresponsible, unreliable and forgetful (John, 1990). The trait of *Neuroticism* is very similar to Eysenck's description and refers to individuals who are tense, anxious, irritable, shy, moody, worrying, and self-punishing; they lack self-confidence and are highly emotional. On the other hand, individuals low in neuroticism are emotionally stable, calm and restrained (John, 1990). Finally, *Openness to Experience* refers to the extent to which individuals are curious, creative, imaginative, artistic, original, sophisticated, and unconventional (Costa and McCrae, 1992, 1997). Conversely low Openness to Experience is characteristic of individuals who have narrow interests, and are neither creative nor curious (John, 1990).

The big five personality traits are rather stable throughout the life course as demonstrated through several longitudinal studies (Costa and McCrae 1992; Block 1971, 1981). Thus patterns of behaviour observed in early childhood are related to personality traits in adulthood (John, Robins and Pelvin, 2008). However the Big Five seems to consolidate at the end of adolescence (around age 18), with few modifications observed thereafter (Deal, Halverson, Havill, and Martin 2005; John et al., 2008).

In terms of gender differences in personality traits, there is research evidence suggesting no important differences between men and women (Terracciano, McCrae, Brant and Costa, 2005; Lazarus and Folkman, 1980). However there have also been some studies suggesting that differences might exist in terms of specific traits; e.g., the traits of Agreeableness and Neuroticism being more pronounced in women as compared to men (Costa, Terracciano and McCrae, 2001).

Studies have also demonstrated that the Big Five is universal, i.e., the five traits have been found across different cultures and historical periods. Hence studies across 50 different cultures have shown that the Big Five model is valid in South Korea, Italy, Germany, USA, Estonia, Turkey, Greece, UK, Spain, Portugal, Polonia, China, Croatia, Russia, Japan etc. (McCrae and Terracciano, 2005; McCrae, Costa, del Pilar, Rolland and Parker, 1998; Costa, McCrae, Herbst and Siegler, 2000; McCrae et al., 1997, De Raad (1995), Somer and Goldberg (1999), Benet-Martínez and John (1997), De Raad, Perugini, Hrebickova and Szarota, 1998; Shmelyov and Pokhil'ko, 1993; Zawadzki, Strelau, Szczepaniak and S'liwin'ska, 1997).

To summarize the Big Five Personality model represents one of the most useful theoretical approaches to personality, and is probably the most researched model of personality worldwide. The following section reviews studies investigating associations between personality factors and stress.

Personality and Stress

Research studies have shown consistent links between the Big Five personality traits and stress levels. However, out of the five traits, Neuroticism shows probably the clearest and most consistent association with stress. The explanation is quite straightforward considering that individuals high in Neuroticism have the tendency to overestimate 'threat' in everyday life, demonstrating high levels of concern even for daily hassles. The high emotional instability and accompanying anxiety are likely to provoke negative reactions from the environment, which in turn increase even further stress levels (McCrae and Costa, 1987; McCrae & Costa, 1990). Therefore the trait of Neuroticism seems to promote a greater exposure to stress (Bolger & Zuckerman, 1995). Also Hemenover and Deinstbier (1996) have

reported that even when exposed to the same identical stressor, individuals high in Neuroticism report greater distress.

Conversely high levels of Conscientiousness, Agreeableness and Extraversion, seem to serve as protective traits against stress, as they are associated with less concerns about daily hassles (Vollrath, 2001). Indeed several studies have found negative correlations between perceived stress and the Extraversion trait (Ebstrup, Eplov, Pisinger & Jorgensen, 2011; Mohamadi, Besharad, Abolhoseini, Alaei & Niknam, 2013). Individuals high in Extraversion and Conscientiousness not only report a lower exposure to stress but also perceive existing stressors as challenges rather than threats, therefore reducing their negative impact (Grant & Langan-Fox, 2006; Vollrath & Torgersen 2000). Studies have also found that high Agreeableness is associated with low interpersonal conflict and consequently low levels of stress (Asendorpf & Wilpers, 1998). Moreover, individuals high in openness to experience, might be better equipped to welcome changes in their environment, appraising them as interesting challenges, rather than as fearful news. These findings associating the five personality traits with stress levels have been replicated across many different cultural settings (Song et al., 2016; Penley & Tomaka, 2002; Vollrath, 2001). Even though the structure of the coping process is relatively consistent/ the same in all cultures and ethnic groups, exposure to stressors, stress appraise, coping resources, eligibility of coping strategies and the frequency of their use may differ between cultures (Connor-Smith & Calvete, 2004; Falkum, Olff & Aasland, 1997; Hudek-Knezevic, Kardum & Vukmirovic, 1999). For instance, there is some evidence that Openness to experience might be perceived differently based on culture, e.g., Ebstrup et al, (2011), found no correlation between perceived stress and Openness to experience factor. On the other hand other studies have found greater stress resilience among individuals high in Openness to experience, but greater vulnerability to stress among those less open to experience (Williams et al., 2009). Hence the relationships between personality traits and stress seem to depend largely on cultural contexts, consequently suggesting that stress management techniques require contextualization too (e.g., should individuals be prompted to be more open to experiences, or is this factor irrelevant).

Aim of the study

The purpose of the present study was to assess Big Five personality dimensions and perceived stress among young adults in Albania. The study investigated possible associations between perceived stress and the personality dimensions of neuroticism, extraversion, agreeableness, conscientiousness and openness to experience in order to determine which traits might serve as risk or protective factors against stress among Albanian youth.

Methodology

Participants

Participants were 255 Albanian young adulthoods, 86 men (33.8%) and 169 women (66.2%). The age range of participants was from 20 years to 35 years old with a mean age, $M_{\text{age}} = 26.45$ years, $SD = 4.4$ years. As regards employment, 63.5% of the sample declared to be employed, while 34.9% were students and 1.6% were unemployed.

Procedure and ethical issues

The study was conducted online. The questionnaire was designed with Google Docs and distributed via email to researchers' contacts (convenience sampling). Additionally a snowball sampling procedure was followed, as participants were asked to distribute the link to their contacts. Participants were briefed on the purpose of the study and issues of anonymity and confidentiality were also explained. The only selection criterion was that the age range of participants, which was required to be between 20 and 35 years old. This age range was determined by considering the specific developmental stage (young adulthood) and also research showing that personality traits are stabilized in the 20's (measurement of traits should be valid and reliable) (Deal, Halverson, Havill, and Martin 2005; John et al., 2008). All questionnaires were completed within 30 days.

Measurements

The measuring instrument used for this study was a self-report questionnaire divided into two sections. The first section included the Big Five Inventory and the second section the Perceived Stress Scale. The questionnaire was translated from English to Albanian by two professional translators; the researchers compared the translated versions with each other and also with the English version. The pre-final Albanian version was then piloted among 10 people to test the comprehensibility of items. Based on feedback and clarification requests, few unclear words were revised before getting the final version of the questionnaire.

The Big Five Inventory (BFI) was developed by John, Donahue, and Kentle (1991) (reprinted in Benet-Martinez and John, 1998) and consists of 44 short phrases, which assess the Big Five domains of personality traits including Neuroticism, Extraversion, Agreeableness, Conscientiousness and Openness to Experience. The short phrases evaluate the most typical characteristics associated with each of the Big

Five dimensions (John, 1990). The trait adjectives (e.g., thorough) that form the core of each of the 44 BFI items (e.g., “does a thorough job”) have been shown in previous studies to be specific markers of the Big Five dimensions (John, 1989, 1990). Answers were recorded on a five-point Likert-type scale from 1 to 5 where, 1- strongly disagree, 2- disagree a little, 3- neither agree nor disagree, 4- agree a little and 5- strongly agree. Participants were asked to rate the extent to which each statement corresponded to their perception of themselves. Some examples of the items included: ‘I see myself as someone who “is talkative”, “...is relaxed, handles stress well” or “...is full of energy” etc. A higher score on each item denotes a more pronounced corresponding trait. The total score of the BFI is obtained by reverse scoring some of the answers as follows: 1 = 5, 2 = 4, 3 = 3, 4 = 2, 5 = 1. For example, the Extraversion trait was measured by eight items, including items 1, 11, 16, 26, 36, while items 6, 21 and 31 were reversely scored. The Neuroticism trait was measured with 8 items, Agreeableness trait with 9 items, and Conscientiousness trait also with 9 items. Finally Openness to Experience was assessed with 10 items. The five subscales showed good internal consistency, as measured by Cronbach’s alpha; more specifically, for extraversion subscale $\alpha = .90$, for agreeableness subscale, $\alpha = .87$, for conscientiousness, $\alpha = .89$, for neuroticism $\alpha = .90$, and finally for openness to experience, $\alpha = .86$. These values are very similar to those reported by John and Srivastava (1999) where the average internal consistency for the five personality domains was $\alpha = .92$.

The Perceived Stress Scale (PSS). The PSS was designed by Cohen, Kamarck, and Mermelstein (1983) to measure the extent to which situations are appraised as stressful. The PSS questionnaire consists of 10-items that assess the respondents’ perceptions of stressful experiences by asking them to rate the frequency of their feelings and thoughts related to events and situations that have occurred over the last month. Items were designed to assess whether participants feel overloaded by unpredictable and uncontrollable events in their lives. Several studies have shown that PSS is associated with perceived health, health behaviour, negative affect and stressful life events (Cohen et al., 1983; Cohen, Tyrrell, and Smith, 1993). Respondents were asked to rate their responses on a five-point Likert-type scale from 0 to 4 where 0 – never, 1- almost never, 2 – sometimes, 3 - fairly often, and 4 - very often. Some examples of the questions included “In the last month, how often have you felt that you were unable to control the important things in your life?”, “In the last month, how often have you been able to control irritations in your life?” or “In the last month, how often have you felt confident about your ability to handle your personal problems?”. The total scores of the PSS are obtained by reversing the scores on the four positive items 4, 5, 7 and 8 (e.g., 0=4, 1=3, 2=2, 4=0, 3=1), and then summing across all 10 items (Cohen et al., 1983; Cohen and Williamson, 1988). The total score ranges between 0 and 40 points. Higher scores indicated higher levels of perceived stress. The stress subscale showed good internal consistency (Cronbach’s alpha coefficient) $\alpha = .81$.

Results

Descriptive statistics for perceived stress and the five personality traits are shown on Table 1. The highest mean values are reported for the Conscientiousness, $M=3.97$, $SD=.57$ and Agreeableness traits, $M=3.80$, $SD=.48$. The lowest mean value was found for Neuroticism, $M=2.67$, $SD=.72$. The mean value for perceived stress can be categorized as average, $M=17.65$, $SD=6.51$.

TABLE 1. Descriptive Statistics for the Big Five Personality Traits and Perceived Stress.

	N	Minimum	Maximum	Mean	Std. Deviation
1. Openness to experience	255	2.40	5.00	3.7992	.53197
2. Conscientiousness	255	1.78	5.00	3.9674	.57618
3. Agreeableness	255	2.22	4.89	3.8035	.47611
4. Neuroticism	255	1.13	4.75	2.6740	.72186
5. Extraversion	255	2.00	5.00	3.4113	.55274
6. Perceived stress	255	2.00	35.00	17.6549	6.51516
Valid N (listwise)	255				

Table 2 shows correlations between Perceived Stress, demographic variables (age, gender) and the Big Five personality traits. Age and gender did not show statistically significant correlations with perceived stress ($p>.05$). However significant positive correlations were found between gender and Neuroticism, ($r = .14$, $p<.05$), gender and Conscientiousness ($r = .20$, $p<.01$), and gender and Agreeableness ($r = .23$, $p<.01$). Hence women had the tendency to be more neurotic, conscientious, and agreeable as compared to men. No significant correlations were found between gender and Extraversion or Openness to Experience ($p>.05$). As regards age, the only significant correlation was found with Openness to Experience, ($r=-.12$, $p<.05$). Hence increasing age was associated with less Openness to Experience.

TABLE 2. Pearson correlations between Perceived Stress, Gender, Age, and the Big Five Personality Traits

		Stress	Gender	Age	Extraversion	Neuroticism	Agreeableness	Conscientiousness	Openness to experience
Stress	Correlation	1	.083	-.045	-.143*	.573**	-.198**	-.292**	-.079
	Sig.		.185	.475	.023	.000	.001	.000	.206
	N	255	255	255	255	255	255	255	255

Gender	Correlation	.083	1	.057	.017	.139*	.229*	.202*	.076
	Sig.	.185		.364	.789	.026	.000	.001	.230
	N	255	255	255	255	255	255	255	255
Age	Correlation	-.045	.057	1	-.088	-.051	.019	.069	-.124*
	Sig.	.475	.364		.163	.418	.764	.272	.049
	N	255	255	255	255	255	255	255	255
*. Correlation is significant at the 0.05 level (2-tailed).									
**. Correlation is significant at the 0.01 level (2-tailed).									

As regards the relationships between perceived stress and the Big Five Personality domains results showed a statistically significant positive correlation with Neuroticism, $r=.57, p<.01$. Hence higher levels of neuroticism were associated with more perceived stress. A statistically significant, negative correlation was found between Perceived Stress and Extraversion ($r = -.14, p<.05$). Thus higher levels of extraversion were associated with lower perceived stress. Similarly, a negative correlation was found between Perceived Stress and Conscientiousness ($r = -.29, p<.01$), i.e., individuals reporting higher levels of Conscientiousness had the tendency to report lower perceived stress. Finally, a negative correlation was found also between perceived stress and agreeableness ($r = -.20, p<.01$), i.e., more agreeable individuals reported lower stress levels. No significant correlations were found between perceived stress and openness to experience. A regression analysis was performed with age, gender, and the Big Five Personality traits as independent variables and Perceived stress as the dependent variable.

TABLE 3A. Regression Model Summary for Perceived Stress

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.097 ^a	.009	.002	6.51008
2	.581 ^b	.337	.319	5.37777
a. Predictors: (Constant), Age, Gender				
b. Predictors: (Constant), Age, Gender, Extraversion, Agreeableness, Neuroticism, Openness to experience Conscientiousness				

TABLE 3B. ANOVA Results for Perceived Stress

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	101.584	2	50.792	1.198	.303 ^b
	Residual	10680.047	252	42.381		
	Total	10781.631	254			

2	Regression	3638.282	7	519.755	17.972	.000 ^c
	Residual	7143.349	247	28.920		
	Total	10781.631	254			
a. Dependent Variable: Perceived Stress						
b. Predictors: (Constant), Age, Gender						
b. Predictors: (Constant), Age, Gender, Extraversion, Agreeableness, Neuroticism, Openness to experience Conscientiousness						

As expected, demographic variables did not significantly predict stress levels (Model 1), $F(2,252) = .20, p > .05$. The Big Five Personality traits though, accounted for 33.7% of the variance in perceived stress levels, $R^2 = .337$ (see Table 3a). Indeed once added the five personality traits, the predictive model became significant, $F(7,247) = 17.97, p < .01$ (see Table 3b). However, out of the five personality traits the only significant predictor was Neuroticism, $\beta = .53, p < .001$, as the other four traits did not make a significant contribution (Table 3c).

TABLE 3C. Regression Coefficients for Age, Gender, and the Big Five Personality Traits

Model B		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		Std. Error	Beta			
1	(Constant)	18.787	2.484		7.565	.000
	Gender	1.185	.864	.086	1.372	.171
	Age	-.072	.091	-.050	-.794	.428
2	(Constant)	10.726	5.373		1.996	.047
	Gender	.487	.768	.035	.634	.527
	Age	-.019	.077	-.013	-.250	.803
	Neuroticism	4.764	.544	.528	8.750	.000
	Agreeableness	-.960	.792	-.070	-1.211	.227
	Conscientiousness	-.614	.711	-.054	-.864	.389
	Openness to experience	.436	.714	.036	.610	.542
	Extraversion	-.350	.675	-.030	-.519	.604
a. Dependent Variable: Stress						

Discussion

The purpose of the present study was to explore the relationships between perceived stress and the five personality traits including Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness to Experience among Albanian youth. Results revealed significant relationships between stress and four out of five

personality domains (apart from openness to experience). However neuroticism was the only significant predictor out of the five traits. Conversely no patterns of stress based on age or gender were found. These findings are in line with research suggesting that personality traits and individual appraisal are much more important markers of stress levels than broad category variables such as age or gender (Arnold, 1960, 1984, Chang, 1998, Dewe, 1992, Hemenover and Dienstbier, 1996; Levine, 1996; Peeters et al., 1995; Terry et al., 1995; Lazarus and Folkman, 1984). Also these findings are particularly significant considering that in the present sample women had the tendency to be more neurotic, conscientious and agreeable as compared to men. Nonetheless men and women did not significantly differ in their stress levels; hence although neuroticism might be an important risk factor for women (experience higher stress), their greater agreeableness and conscientiousness might serve as important protective factors (counterbalance higher levels of neuroticism). These findings are in line with studies suggesting that there are important gender differences in traits such as Neuroticism and Conscientiousness with women generally over-scoring men (Costa et al., 2001). Hence characteristics associated with specific gender roles seem to also be present in the Albanian context; indeed women as compared to men report higher levels of anxiety, tension, worry, or vulnerability when confronted with life events. On the other hand, the higher levels of agreeableness make women more flexible, modest, unselfish, forgiving, generous and more grateful than men. Finally higher levels of conscientiousness suggest women as being more organized, responsible, reliable, more practical. This multitude of characteristics associated with the specific gender role though, neither increase nor decrease women's vulnerability to stress (they have a balancing effect), as results show they are just as vulnerable as men are (gender is not significant).

As regards the relationships between Perceived stress and personality traits, significant relationships were found for Neuroticism, Extraversion, Conscientiousness, and Agreeableness but not Openness to Experience. Lack of a significant correlation between stress and Openness to experience was an unexpected finding, especially considering studies which have identified this variable as an important protective factor against stress (Afshar et al. 2015). The present results indeed suggest that openness to experience is in fact irrelevant (neither protective nor risk factor) when it comes to stress levels among Albanian youth. Future research is needed to investigate possible explanations for this finding, but it might be suggested that specific cultural aspects might be involved (e.g., Openness being either/both positively and negatively appraised based on the specific context).

Out of the five personality traits neuroticism revealed the strongest correlation (also the only predictor) with perceived stress. This finding was expected considering

that Neuroticism is characterized by the tendency to experience emotional instability and predominance of negative affect manifested through behaviour (Costa and McCrae, 1987, McCrae and Costa, 1990). Therefore neuroticism not only increases the likelihood of over-reacting to negative events (the person feels constantly threatened) but also provokes negative events from scratch (Costa and McCrae 1987; Eynsenck and Eynsenck, 1975, McCrae and Costa 1990). The findings are in line with studies showing strong relationships between Neuroticism and perceived stress (Ebstrup et al., 2011; Bolger and Zuckerman, 1995; Mohamadi et al., 2013, Song et al., 2016; Grant and Langan-Fox, 2006; Vollrath and Torgersen, 2000; Afshar et al., 2015). Therefore the domain of Neuroticism might be identified as the most important risk factor for experiencing high stress levels.

Although Extraversion, Agreeableness and Conscientiousness were not significant predictors of stress they were negatively correlated to it, suggesting a protective character for these traits (Song et al., 2016). Obviously features such as being energetic, active, sociable (Extraversion), cooperative, sympathetic, helpful (Agreeableness) or practical, organized, efficient (Conscientiousness) all represent a great advantage in terms of stress appraisal and management.

Therefore these findings are in line with those from other studies claiming that Extraversion, Agreeableness, Conscientiousness are negatively related to perceived stress, are a stress-protecting factor, also predict lower stress exposure (Afshar et al., 2015; Vollrath, 2001; Grant & Langan-Fox, 2006; Vollrath & Torgensen, 2000; Penley & Tomaka 2002).

Finally it must be noted that contrary to what previous studies have reported, and also the researchers' expectations, the present sample reported quite moderate (average) levels of stress. Most important, the two most protective and adaptive traits of Conscientiousness and Agreeableness showed the highest reported mean values. These findings provide a very optimistic image of the specific age group under investigation, although care should be taken in generalizing from such a small sample, and future research is needed.

Conclusion

The present study investigated associations between Big Five personality traits and perceived stress among Albanian young adults in order to determine risky and protective personality characteristics. Results suggested that while extraversion, conscientiousness and agreeableness might serve as protective factors, neuroticism was the most important risk factor as well as the single significant predictor of perceived stress. Therefore stress management programs need to identify neurotic dimensions as well as work through specific behaviours manifested due to this

trait. Moreover stress management techniques need to be further individualized, by considering possible ways in which to strengthen protective factors. Finally, further research into cultural aspects is required (the specific Albanian context), particularly as regards the ‘openness to experience’ trait, which proved to be irrelevant in the present study.

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