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Big Five Predictors of Maladjustment in Nigerian Undergraduates

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Abstract

The study investigated the big-five as predictors of maladjustment among University Undergraduate students. Participants were 164 students from a private University who ranged between 19 and 24 years in age (Mean age= 18.38, SD = 1.59). 126 of these (i.e. 76.80 per cent) were females, and 38 (23.20. per cent) were males. It was hypothesised that the Big Five measures of personality would predict maladjustment among University undergraduates. Neuroticism positively associate with maladjustment ($\beta=.50$, $p<.000$). Negative associations were found for Agreeableness and ($\beta= -.37$, $p<.000$), Conscientiousness ($\beta= -.18$, $p<.01$), and Openness ($\beta= -.16$, $p<.05$). The findings indicate that measures of the big five factors may successfully predict maladjustment in University students.

Key Words: Maladjustment, Big Five, Personality, Undergraduates, Stress, Adjustment

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The dynamism presented by the world of human existence poses the challenge of continuous adjustment to the organism. The processes of adapting/adjusting to environmental changes may operate in ways that the organism takes little or no notice of, as is typical of the normal physiological adaptation to changing environmental demands that characterize our daily living. On the other hand, the magnitude of change may be such that the individual is less well able to cope with, resulting in biological, psychological, social, or occupational disruption that may manifest in impairment in optimum function, which is referred to as maladjustment.

The importance of coping is highlighted in stress theory. According to Lazarus and Folkman (1986), lack of person-environment fit *viz á vis* less resource to cope with demands of personally meaningful events, may produce a broad range of symptoms that is described by the term stress. Holmes and Rahe (1967) demonstrated that a vast array of life experience may pose challenge to adaptation. These may include very painful experiences like loss of spouse as well as such events as vacation, generally considered to be positive in nature. Harburg, Erfurt, Chape, Hauenstein, Schull, and Schork (1973) concluded from their study that living in high stress areas of a city, or being a new immigrant may pose difficulty to psychophysiological adjustment, a study that concurs with Akinkugbe, 2010; Akinkugbe, 1997) who documented differences in blood pressure between rural and urban dwelling Nigerians. In other words, environmental demands induce adjustment processes that have varied presentations.

University studentship presents a situation that may be compared to that in the Harburg et al (1973) study. Typically the University environment presents a semblance of urbanization- people from diverse ethnicity and nationalities, sets of new rules of behaviour, and tasks to be learned (Jarrett, 2013). Moreover, at the end of each semester students return

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to their families for some weeks during which time they have to adjust to the family again. This home-school-home cycle continues until the time of graduation. Adjusting to this cycle may pose serious challenge to a number of students and impinge on the overall health and academic performance of the individual (Farmer, Irvin, Thompson, Hutchins & Man-Chi Leung, 2006), though some other studies e.g. Ross & Hammer (n.d.) did not find a significant relationship between adjustment and academic achievement.

A number of factors may be important to adapting to the challenges posed by University education. Personal health conditions such as living with epilepsy (Farwell, Lee, Hirtz, Sulzbacher, Ellenberg, & Nelson, 1990; Philip, Fastenau, Jianzhao, Dunn, & Austin, 2008; Camfield, Gates, Ronen, Camfield, Ferguson, & MacDonald, 1984), and student's socio-economic status (Farmer, Irvin, Thompson, Hutchins, & Leung, 2006) may impair a student's ability to adjust to school life. Parental child-rearing Early childhood parent child-rearing experience attachment is crucial to coping in later life (Baker & Hoerger, 2012).

Response to environmental demands has been linked to brain structures, neurochemistry, and neurophysiology by psychobiologists. Negative affectation positively correlated with the right frontal lobes in the study conducted by Davidson (1992), while Psychoticism (Eysenck, 1967) correlated inversely with hydroxyindole acetic acid (Schalling, Asberg, & Ed-man, 1984). More importantly, these biological mechanisms have been described as the basis of personality that is usually abstracted at the social level (Zuckerman 1995, Eysenck, 1967).

Based on these mechanisms, three dimensions of personality have been proposed using different but similar terminologies. Extraversion, Psychoticism, and Neuroticism were the names used by Eysenck (1967), while Tellegen (1985) described his three factors using the terms positive affectivity (PA), negative affectivity (NA), and constraint (C), which correlate with Eysenck E, N, and P respectively (Zuckerman, 1995). Lexical approach to

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personality have yielded five factors or the big five (Goldberg, 1990; Norman, 1967) consisting of extraversion, openness, conscientiousness, agreeableness, and neuroticism. Two of the factors, extraversion and neuroticism tend to correlate well across measuring systems (Zuckerman, Kuhlman, Joireman, Teta, & Kraft, 1993).

The role of personality in adjustment/maladjustment may be understood within the framework of arousal/activation theory. Arousal or activation is the ability of a physiological system to react to stimulation which varies along a continuum between strong reaction to stimulation and acquiescence (Woodworth & Schlosberg, 1965). Part of the body's response to stressors is the well-known fight or flight activations of the sympathetic adrenal-medullary (SAM) system, the hypothalamic-pituitary-adrenocortical (HPAC) system, and the endocrine systems.

Some studies have related the big five to physical health (Hudek-Knezevic & Kardum, 2009), work (Bozionelos, 2003), school performance (Scott, 1974), mental health and other important life outcomes (Huey & Weisz, 1997) such as leadership, creativity (See Graziano & Eisenberg, 1997; Hogan & Ones, 1997; & McCrae, 1996), and emotional intelligence (Weinberger, 2003; Van Der Zee, Thijs, & Schakel, 2002). Difficult in adjustment may predispose to Chronic visceral activation in stressful conditions that become manifest in unpleasant subjective emotional and cognitive experiences and dysfunctional behaviour pattern characteristic of stress disorders. For example, Agoha and Ilobi (2010) found a relationship between lifestress and somatisation in a group of adult Nigerians. They argued that somatisation was part of the immune system disturbances occasioned by chronic stress. Personality patterns that enhance adaptability may mitigate the plethora of stress-related symptomatology that are interpreted as maladjustment at the behavioural level.

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The big five construct of conscientiousness is one personality characteristic that has been related to academic achievement in current literature, such that academic achievement may no longer be understood as solely due to intelligence. Conscientiousness is a construct that implies adjustment. A conscientious person is orderly, focused, and persistent, self-controlled, whereas the maladjusted student may become withdrawn, introverted or disruptive (Oliha & Audu, 2010; Adima, 1989), or be disturbed in some other ways that may lead to poor academic achievement (Valdez, 2000, Osarenren, 1996) and consequent emotional disturbances.

The links between the Big Five and important life outcomes point to behavioural domains that people can target for personal development and change (Oliha & Audu, 2010; Heatherton & Weinberger, 1994). It is therefore necessary that predisposing factors to academic maladjustment be understood.

Adjustment to college may also be related to culture.

The problems of this study is that not many empirical studies involving the big five personality and academic maladjustment are extant. More especially as it has to do with literature emanating from studies in Africa. Studies of this nature also aid the understanding of the big five taxonomy, and also enable counselors and psychologists identify students at risk of maladjustment and design appropriate preventive and corrective programs for such individuals.

The aim of this study was to determine the roles of the big five personality factors in maladjustment among University students. And It was hypothesized accordingly that the big five measures of personality would be associated with maladjustment.

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Method

One hundred and sixty-four (164) undergraduate students chosen from a pool of students attending a general studies course through simple (odd-even) random sampling procedure participated in the study. They ranged from 19 years to 24 years in age (Mean age= 18.38, SD = 1.59). One hundred and twenty-six (76.80 per cent) of these were females, and thirty-eight (23.20. per cent) males. The disparity in gender representation is reflexive of the gender distribution of the entire class register. Participation was purely volitional and participants were assured that their data would be treated in confidence, and that they could withdraw from the study at any point in time.

Instrument

The big five personality inventory (John & Srivastva, 1989) and the University Maladjustment Scale (UMS) were administered on the participants. Poorly completed forms were not included in the analysis.

Design/Statistics

The study was a cross sectional survey and data was analysed using the Multiple Regression analysis technique (Forward method) by means of the SPSS-XV statistical package. The result of the analysis is presented below.

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Result

Table 1: **Descriptive Statistics of Participants Scores on the Big Five Inventory (BFI)**

As the descriptive statistics suggests (Table 1), it can be observed that the respondents scored highest on the *Openness* dimension, implying higher levels in curiosity, imaginativeness, willing disposition to novelty and unconventional values, active seeking and appreciation of experiences for their own sake, and vivid experience of emotions (John & Srivastava, 1999). They also scored high on conscientiousness, a tendency towards organisation, persistence, control, and self-motivation in goal-directed behaviour. Their lowest scores were on *Neuroticism*, tendency to experience negative emotions, and *Agreeableness*- social affiliativeness, likability, friendly compliance, modesty and love.

Neuroticism entered into the first model, predicting a significant 25 percent variance in maladjustment ($R^2 = .246$, $\beta = .496$, $F(1, 192) = 55.23$, $p < .000$). In model 2, 18 percent of variance in maladjustment was determined by neuroticism ($\beta = .422$) and Agreeableness explained another 11.20 percent of the variance ($B = -.35$, $F(1, 162) = 32.13$, $p < .000$) bringing the predicted portion of maladjustment to 33.50 per cent. In model 1 Beta In conscientiousness and openness were $-.182$ (Partial corr. = $-.205$, $p < .01$) and $-.157$ (Partial corr. = $-.180$, $p < .05$). thus, about 41 per cent of maladjustment was predicted by the big five.

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Discussion

From the results presented above only one dimension of the big five, extraversion was not significantly associated with maladjustment. It however tended to vary in the same direction with maladjustment just as neuroticism, the most important predictor. We understand this pattern to represent activation; The negative affectivity characterising neuroticism has potential for chronic activation of the fight/flight response and depletion of coping resources. According to Gray (1981) Immediate threatening, punishing, or frustrating stimuli activate the freeze, flight or flight system, the behavioural inhibition system (BIS) which corresponds to Eysenck (1967) viscera-cortical loop, connecting the cerebral cortex and the limbic system. This system produces active avoidance (panic and flight) or attempted elimination (anger and attack) response to perceived threat, and is said to be more active in people high in neuroticism. In this study adjustment to school holds personal meanings that make neuroticism an important predictor of University maladjustment. Extraversion on the other hand, correspond to positive affectivity that has been argued to derive from the cortico-reticular loop, the ascending reticular activating system, and the thalamus (Eysenck, 1967), and corresponding to the behavioural activating system (Gray & McNaughton, 2000; Pickering & Gray, 1999). Hence the positive directionality and yet nonsignificant association with maladjustment.

On the other hand agreeableness is a culturally relevant personality characteristic in a mostly collectivist Nigerian culture. Most agreeable people would be thought of as 'wise', 'good', and 'desirable'; and would more easily access assistance from other persons. They would expectedly adjust more readily to the challenges of a University community, and be less stressed compared to less agreeable persons. Conscientiousness and openness expectedly correlated inversely with maladjustment. Conscientious persons are less likely to feel helpless in a challenging situation given the persistence and scrupulousness that characterise them. As

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with people high in openness, conscientious people are less likely to entertain catastrophising cognitions about their situations; and so less likely to become maladjusted compared to people high on neuroticism.

The findings of this study underscores the need for personality profiling of new Undergradutes in the same way that medical tests are conducted. In this way vulnerable students would be identified and made to undergo necessary psychological prophylactic programmes that may increase their adaptability and improve their positive experience of the University environment. Besides, our findings demonstrate the usefulness of the BFI in clinical screening in the general population.

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