# THE RELATIONSHIP BETWEEN NEUROTICISM, EXTRAVERSION AND PSYCHOLOGICAL WELL-BEING IN SUDANESE UNDERGRADUATE STUDENTS BETWEEN DIFFERENT GENDER AND AGE COHORT

BY

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A dissertation submitted in fulfilment of the requirement for the degree of Master of Human Sciences

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## ABSTRACT

Psychological well-being is more than just happiness or satisfaction; rather it refers to being able to develop as a person and to being fulfilled and happy, and thus, contributes to the well-being of the community at large. However, since 2014, the issue of psychological well-being in Sudan has become a prodigious concern due to the rise of psychological problems among students. It was highlighted that there was an increased number of Sudanese students who were suffering from psychological well-being issues as a result of life and psychological pressures. In spite of that, the research on psychological well-being and personality has undergone extensive empirical review and theoretical evaluation, there is no study reported on the relationship between personality, demographic variables and psychological well-being among Sudanese students. Thus, the current study investigated the relationship between extraversion, neuroticism and psychological well-being of Sudanese undergraduate students as well as analysed gender differences. The current study has used a stratified random sampling procedure to select 382 undergraduate students as the sample of the study. The Eysenck Personality Inventory (EPI) that measures two dimensions of personality and Ryff's Psychological Well-being scales were applied. The findings showed a positive (p<0.05) correlation between extraversion and the psychological well-being; neuroticism and psychological well-being of the students. Moreover, it has indicated the females and males were not significantly different (p>0.05) in terms of psychological well-being. This study contributed to the literature of psychological well-being and established the relationships of extraversion, neuroticism, demographic variables and psychological well-being among Sudanese students. It is recommended that psychological well-being enhancement should concentrate on the total well-being of the Sudanese undergraduate students to promote a healthy environment for all citizens in Sudan.

# مُلخَّص البحث

أضحت قضية الصحة النفسية في السودان مصدر قلق كبير بسبب ارتفاع معدل المشاكل النفسية بين الشباب، وعليه؛ يُحقق هذا البحث في العلاقة بين الانبساط والعصبية والصحة النفسية للطلاب الجامعيين، ويتحقق مما إذا كان هناك اختلاف كبير في الصحة النفسية بين الطلاب الجامعيين وفق جنسهم، وقد توسَّلت الباحثة المنهج الكمي، فاختارت عينة عشوائية من الشخصية، ومقاييس ريف للصحة النفسية، ومن أبرز النتائج أن هناك علاقة بين الانبساط والصحة النفسية، وأن العصبية مرتبطة بالصحة النفسية للمشاركين، وأن لا اختلاف كبيرًا من حيث الصحة النفسية بين الإناث والذكور مع قيمة P قدر ها ٢٠١٠ <.٥٠ من معالمه، مما تبيَّن معه أهمية الصحة النفسية في تحديد الحامة النفسية بين الإناث والذكور مع قيمة P قدر ها ٢٠١٠ <.٥٠ من منامه، مما تبيَّن معه أهمية الصحة النفسية ودور الانبساط والعصبية في تحديد الحالة النفسية بين الإناث ومن ثم؛ أوصت الباحثة بأن يركز تعزيز الصحة النفسية بين الطلاب، والمحدة النفسية ودور الانبساط والعصبية في تحديد الحالة النفسية للطلاب، ومن ثم؛ أوصت الباحثة بأن يركز تعزيز الصحة النفسية بين الطلاب في السودان لتحقيق الرفاهية الكلية للطلاب داخل الحرم الجامعي بخاصة، والشباب السوداني بعامة؛ لتعزيز البيئة التي تغير على والثين في السودان.

## **APPROVAL PAGE**

I certify that I have supervised and read this study and that in my opinion; it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Master of Human Sciences Psychology

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## DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

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I dedicate this dissertation to my precious family: Firstly, to my (late father Hamad Abdel Khalig Wade and my Late mum Halima Eishaq Muhammad) may Allah grant both Aljanah al Firdaos Secondly, to my brothers and Sisters (Hamed, Aboud, Maria, Noura and Afaf) for their sympathetic encouragements, prayers and reassurances given to me during my study.

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### **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 INTRODUCTION**

Psychological well-being (PWB) is considered a crucial resource for an individual (Ryff & Singer, 2006) to overcome hurdles and navigate through life's challenges. Navigating through the environments and achieving self-actualization requires the skills and perspectives of PWB, which are important in building successful relationships with one another (Ryff, 2014).

PWB has been measured to correlate with physical health and individual personality (Ryff et al., 2006). LeVine (2018) explained that personality traits that consist of self-feeling, attitudinal, and social reactions associated with psychological well-being to different human attributes such as neuroticism and extraversion in particular. It is also important for individuals at any age, especially students transiting to higher education, regardless of their different personality traits and demographic backgrounds such as gender, level of income, and socioeconomic status (Bowman, 2010).

Personality determines our reactions to the environment and as consistently been reported as a strong predictor of well-being (Diener & Smith, 1999). According to Diener and Smith (1999), people with extraverted personalities, for example, are more likely to experience certain events such as happiness, socialization, and less neurotic, compared to those who are mostly introverted. These events, in turn, affect one's baseline level of psychological well-being. While unusual events may cause a shift in an individual's level, the Dynamic Equilibrium Model suggests that the individual will return to their baseline level as the circumstances normalize (Diener, Oishi & Lucas, 2003).

In another study, Diener and Seligman (2002) studied 222 college students of whom some identified as happy while others as unhappy. The authors found clear differences between the two groups. The happier students were more extraverted and agreeable, less neurotic, and more social than were the unhappier students. The happy personalities reported having strong, positive relationships with friends and family. They were highly satisfied with their lives, recalled many better events than bad ones, and experienced more positive emotions daily than negative ones. Therefore, as far as psychological well-being is concerned, the current study aims to investigate the relationships between neuroticism and extraversion on the psychological well-being of undergraduate students in Sudan.

#### **1.2 STATEMENT OF THE PROBLEM**

The issue of psychological well-being in Sudan has become a major concern due to the rise of psychological problems among students Baldo (2014). It was highlighted that there was an increasing number of Sudanese students were suffering from psychological well-being issues as a result of psychological pressures. It was further revealed that among the 500-700 patients in the hospitals and psychiatric clinics in Khartoum, 27% of them are students, while the number of patients on the streets are around 4000 (Baldo, 2014). In addition, Baldo (2014) pointed out that the proportion of schizophrenia in Sudan has reached 1%, depression was between 25-30%, and anxiety in different forms was between 7-15%.

Furthermore, the literature shows that past research had given more consideration to the negative side effects and the causes of psychological problems as

opposed to the components of mental prosperity. This has intensified the necessity to expand knowledge in this area. In response to this need, it seems apparent that a study of PWB and personality traits (Hicks & Mehta, 2018) could be a more compelling goal than the current emphasis on symptom reduction.

Fard et al. (2014) argued that PWB is more than just happiness or satisfaction; rather it refers to being able to develop as a person and to being fulfilled and happy, and thus, contributes to the well-being of the community at large. Recent studies such as Adeniyi and Onadiji (2016) and Sharma, (2014) on gender differences in PWB have yielded contradictory findings. It was also reported that women preferred to express the unbearable pressures more than men do. The studies of Adeniyi and Onadiji (2016) and Sharma (2014) underscored the need for more studies on the impact of gender on important PWB outcomes.

Sharma, (2014) concluded by suggesting the need to take a holistic approach in future research, by not only taking into consideration the gender, domicile and number of siblings but also socio-economic status as possible contributing constructs. There have been many studies on PWB, personality traits and quality of life in the Western context. However, there appears to be only a handful of studies investigating relationships between PWB and the two dimensions of personality traits such as extraversion and neuroticism have taken place in the Sudan context. Perhaps the reason for that may include the Sudanese culture that people cover their family member who suffers psychologically from depression or any other ill-being. Thus, this study aims to demonstrate the importance of psychological well-being and its correlations with extraversion and neuroticism and neuroticism and demographic variables for undergraduate students in Sudan.

#### **1.3 SIGNIFICANCE OF THE STUDY**

This study contributes to the existing literature and bridges the gap in the knowledge of the relationship between the two dimensions of personality trait, namely, extraversion and neuroticism, and the psychological well-being among undergraduate students in Sudan.

The knowledge about psychological well-being and the relationships with the students' personality and their demographic variables such as gender in Omdurman, Sudan can serve as a stepping-stone to improve the psychological well-being issues in the university setting. This knowledge would enable the universities administrators in Sudan to provide the necessary help on college campuses. Moreover, the results of this study would serve as a practical guide to assess undergraduate students' psychological well-being and their personality traits.

This study would benefit the teachers and the administration of Omdurman Islamic University (OIU) Sudan to understand the well-being of the students in their higher institutions and its relationship to the personal traits and demographic background. An extensive body of research suggests that psychological well-being is linked with the ability to adopt adaptive coping strategies in academic contexts (Freire et al., 2016). In this regard, this study would enhance the understanding of the students' well-being. People who score higher in psychological well-being tend to adopt adaptive strategies like commitment, positive reappraisal, or seeking instrumental and emotional support compared to those with lower psychological well-being tend to use more dysfunctional coping strategies compared to those who scored higher in psychological well-being tend to use more dysfunctional coping strategies compared to those who scored higher in psychological well-being.

### **1.4 OBJECTIVE OF STUDY**

The general research objective is to investigate the relationships between extraversion, neuroticism, demographic variables on psychological well-being among undergraduate students. Specifically, this study looks at the following objectives:

- 1. To investigate the relationship between neuroticism, extraversion and psychological well-being of undergraduate students
- 2. To establish whether there is a significant difference in the psychological well-being among undergraduate students in term of their gender
- 3. To establish whether there is a significant difference in the psychological well-being among undergraduate students in term of their age.

#### **1.5 RESEARCH QUESTIONS**

- 1. Is there any significant relationship between neuroticism, extraversion and psychological well-being of undergraduate students?
- 2. Is there any significant difference in the psychological well-being of undergraduate students in terms of their gender?
- 3. Is there any significant difference in the psychological well-being of undergraduate students in terms of their age?

### **1.6 RESEARCH HYPOTHESES**

Based on the research questions, the researcher attempted to test the following three hypotheses:

 $H_01$  = there is no significant relationships between neuroticism, extraversion neuroticism and psychological well-being of undergraduate students

- $H_02$  = there is no significant difference in the psychological well-being among undergraduate students in term of their gender
- $H_03$  = there is no significant differences in the psychological well-being among undergraduate students in term of their age

#### **1.7 CONCEPTUAL AND OPERATIONAL DEFINITION OF TERMS**

#### 1.7.1 Psychological well-being

The term psychological well-being refers to a flourishing human life that experiences life smoothly and well (Huppert & So, 2013). In this study, psychological well-being will be measured by Ryff's scale (1989).

### 1.7.2 Extraversion

Extraversion is often defined as a stable personality dimension characterized primarily by the tendency to experience positive affect. This personality trait also includes the tendencies toward being sociable, talkative, assertive, energetic, and warm (Watson & Clark, 1997). Operationally the researcher will adopt 12 items to measure extraversion using a Likert scale that ranges from strongly agrees to strongly disagree (Eysenck, 1965).

#### 1.7.3 Neuroticism

Neuroticism is the tendency to experience negative emotions such as sadness or anxiety, as well as mood swings (Costa & McCrae 1985). Neuroticism is a trait that reflects the extent to which a person experiences the world as stressful, threatening, and problematic. Neurotic individuals experience frequent and intense negative emotions; they report a wide variety of problems and are dissatisfied with themselves and the world around them. This variable will be measured by adopting 12 items measuring neuroticism using a Likert scale that ranges from strongly agrees to strongly disagree (Eysenck, 1965).

#### **1.8 THEORETICAL FRAMEWORK**

The theoretical framework for this study is the Five Factor theory of personality, also known as the Big Five theory. It is one of the most important and widely accepted personality theories and it consists of a hierarchical categorization of five personality dimensions, i.e.:

**Openness**: Openness reflects a tendency or degree of intellectual curiosity, art, creativity, the novelty and variety a person has. It also defines the extent of a person's imagination and independence. Imagination does not mean that a person is not realistic but that he/she is open to considering new ways of doing things. They know how to balance between existing and new approaches. However, there are some disagreements between theorists about how to interpret openness, which is sometimes referred to as "intellect." People with a high degree of openness tend to be imaginative and liberal in their opinions and thoughts. Poets and artists may be considered as typical examples of people with high openness (Premuzic, 2007).

**Conscientiousness**: Conscientiousness reflects a person's tendency to act dutiful, responsible, organized and self-disciplined. They aim for achievement and generally have very high standards in doing work. Conscientious people prefer to be organized and well-prepared rather than be spontaneous. They have a strong sense of direction and self-control at work and in their personal life (Costa & McCrae, 1992).

**Extroversion**: Extroverts and introverts represent opposite ends of a key personality dimension. Extroverts are outgoing and sociable whereas introverts prefer

to spend their time alone and are generally considered reserved. However, this does not mean that introverts are unfriendly and suffer from social anxiety. Instead, they just do not seek external opportunities for excitement. Extroverts are more active, energized and optimistic. Although they prefer group settings and want to be surrounded by people, they also maintain their privacy.

**Agreeableness:** Agreeableness can be defined as the ability to be compassionate and cooperative rather than being suspicious and antagonistic towards others. It also measures a person's trusting and helpful nature. People displaying this personality dimension are friendly to almost everyone and are always ready to help. They possess the primary facets of trust, modesty, forwardness, and tender-mindedness. Agreeable people are best known for their warm and tolerant behaviour (Premuzic, 2007).

**Neuroticism:** Neuroticism is the emotional and mental stability of a person under adverse situations. People who score high on neuroticism can be very sensitive to a stimulus and become nervous easily in a stressful situation. They also suffer more from anxiety. Conversely, individuals who score lower on neuroticism are considered consistently calm and stable. Instability of emotions can sometimes result in feelings of guilt, anger, mental stress and anxiety. People with high neurotic scores tend to have more heart attacks and psychological disorders than those who have a low neurotic score (Costa & McCrae, 1992). This indicates that neurotic individuals tend to have a high range of negative emotions.

#### **1.9 CONCEPTUAL FRAMEWORK**

The researcher adopts the 6 dimensions of Ryff multi-dimensional model of psychological well-being. The six dimensions used to produce an overall score on

psychological well-being are self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth (Ryff, 1989). The conceptual framework of this study explains the relationships between the variables using correlations analysis. According to the theory, one of the strongest predictors (drivers) of our usual emotional style is personality, particularly the dimensions of extraversion and neuroticism. Extraversion (sociability) is strongly associated with a positive emotional style, while neuroticism is associated with a negative emotional style (Diener & Smith, 1999). In this study, the researcher extracts neuroticism and extraversion from the Five Factor theory of personality. Figure 1.1 below illustrates the conceptual framework of the study.

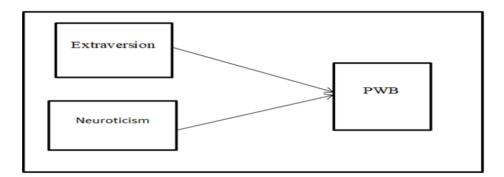


Figure 1.1 Conceptual Framework of the Study

### **CHAPTER TWO**

### LITERATURE REVIEW

#### **2.1 INTRODUCTION**

This chapter reviews the literature on the psychological well-being and the personality traits to enable the researcher to present overviews of the study on the phenomenon. It also discusses possible links between the concepts of psychological well-being and neuroticism, extraversion, and demographic factors such as gender.

#### 2.2 PSYCHOLOGICAL WELL-BEING

Psychological well-being refers to positive mental health (Edwards, 2005). Research has shown that psychological well-being is a diverse multidimensional concept (Wissing & Van Eeden, 2002) which develops through a combination of emotional regulation, personality characteristics, identity, and life experience (Helson & Srivastava, 2001). Psychological well-being can increase with age, education, extraversion and consciousness and decreases with neuroticism (Keyes et al., 2002).

In terms of gender, research suggests that there is no significant difference between men and women on measures of psychological well-being (Roothman, Kirsten & Wissing, 2003). Furthermore, the perception of physical health and spirituality can mediate the relationship between context and psychological well-being (Temane & Wissing, 2006a, 2006b).

Psychological well-being has undergone extensive empirical review and theoretical evaluation (Wissing & Van Eeden, 1998). There is currently no single definitive conceptual understanding of psychological well-being. Bradburn's (1969) initial understanding of psychological well-being provided a depiction of the difference between positive and negative affect. Preliminary research was mainly concerned with the experiences of positive and negative affect, subjective well-being, and life satisfaction based on the Greek word 'eudemonia', which was translated as 'happiness' (Ryff, 1989b).

Happiness was described as the equilibrium between positive and negative affect. Many early measurements such as Diener, Emmons, Larsen & Griffen's (1985) Satisfaction with Life Scale, on which a vast amount of research was conducted, used this initial subjective conception of well-being (Conway & Macleod, 2002; Diener et al., 1985). The Satisfaction with Life Scale requires participants to indicate a cognitive rather than affective response in relation to global satisfaction with their quality of life.

Despite extensive evaluation and assessments, experts have indicated that psychological well-being is a diverse multidimensional concept, with exact its components still unknown (MacLeod & Moore, 2000; Ryff, 1989; Wissing & Van Eeden, 2002).

#### 2.2.1 Psychological Well-Being Components

Ryff is one of the main researchers in the study the objective understanding of psychological well-being. Ryff's components of objective psychological well-being are outlined separately below for explanation and clarification purposes. There appears to be a relationship between Ryff's psychological well-being components and the psychological skill components previously outlined, with psychological well-being components. Figure 2.1 below shows the six components of psychological well-being.

Psychological well- being							
Autonomy	Personal growth	Environme ntal mastery	Purpose in life	Positive relations with others	Self- acceptance		

Figure 2.1 Components of Psychological Well-being (Ryff & Keyes, 1995)

### Autonomy

Autonomy as an aspect of psychological well-being that relates more to qualities such as self-determination, individuality, and the regulation of behaviour from within (Ryff and Singer 2008).Drawing from a classical theory by Abram Maslow (1950), independent adolescent males act from their ego needs, value the options of others but have self-confidence in their own idea even if their ideas are different to those of the majority. Because they are focused, they are able to counterattack social pressures, successfully regulate their behaviour within personal standards as compared to those with low autonomy, which in turn often depend on judgments of others to make important decisions and conform to social pressures (Ryff, 2014).

Autonomy is the regulation of one's own behaviour through an internal locus of control (Ryff, 2014). A fully-functioning person has a high level of internal evaluation, assesses the self on personal standards and achievements while not relying on the standards of others. A high level of autonomy suggests independence with a low-level concern over self-perception. Internal locus of control is an important component of motivation (Weinberg & Gould, 2007) with athletes' generally requiring autonomy, personal insight, and objectivity in order to sustain self-