

Gender and Age Differences in Perceived Stress among Students in a Selected Public University in Kenya

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Submitted 4th November, 2021, Accepted 15th March, 2022, Published 17th April, 2022

ABSTRACT

The transition of students from high schools to universities is a substantial experience in their lives. It accords them opportunities for psychosocial development and learning; however, this transformation may cause significance stress in their existence. The study aimed at unveiling gender and age differences on perceived stress levels of undergraduate students in psychology department at a public university in Kenya. The researcher applied descriptive survey as the research design. Quantitative method was used to collect the data. Data was obtained from a questionnaire and Perceived stress scale inventory (PSS). Data collection tool consisted of three sections: Demographic profile of the participants was incorporated in section A; Section B consisted of Perceived stress scale inventory (PSS) which was developed by Sheldon Cohen in 1988. Perceived stress scale was used to capture the level of perceived stress in an individual. Perceived stress scale measures the degree to which situations in one's life are appraised as stressful. Perceived stress is psychological as opposed to physiological indicators of stress. Section C contained the cluster of causes of stress. It consisted of four dimensions of sources of stress which were; financial, academic, interpersonal and intrapersonal relationship. Respondents were required to choose appropriate score for the four cluster of the generation of stress. Data was purposively collected from all the thirty-three psychology department students with a mean age of 21years. The result obtained showed different causes of stress among respondents. Perceived stress levels were grouped into four: Interpersonal, Intrapersonal, Academic and Financial sources. The results of the data analysis showed significant differences between the stresses mean score of male and female students. Stress was found to be a considerable issue among undergraduate students that should be of clinical concern for psychotherapists. Female students reported higher perceived stress levels (86%) than their male counterparts (55%). The findings of this study may help mental health practitioners to develop interventions that should address psychological needs of the students based on their gender

Keywords: Gender, Stress, Students

I. INTRODUCTION

Kenyan public universities have experienced rapid expansion in the last two decades with limited resources, this expansion and progress may cause significance stress among learners. High magnitude of stress undermines undergraduate's students' cognitive, physical and emotional state. This has potential to affect their academic performance and psychological wellbeing. Whereas, research indicates that university students experience high levels of stress (Adams et al., 2016; Dusan et al., 2012), scanty empirical studies especially in Africa have sought to find out between male and female students' which gender is mostly affected by stress. This study investigated gender and age differences on perceived levels of stress of students in a selected public university. Recent studies in developed world have begun to recognize the importance of gender influence on stress and have consistently revealed that women report higher levels of chronic and daily stress than men (Anbumala et al., 2017; Gomes et al., 2016).

Different studies suggest that women and men are stressed by different types of situations (Adams et al., 2016; Dusan et al., 2012). Men are more likely to list finances and work related problems as source of their stress, while women are more likely to list family and relationships challenges as the root of their stress (Kwaar & Essifie, 2017). Several studies show that female university students tend to have higher levels of stress compared to their male counterparts (Hung, 2011). A study which was carried out by Dusan et al. (2012) in Croatia university indicated that half of the female and a third of the male students reported their stress levels as elevated and moderate respectively ($p < 0.001$). In addition, examinations were marked stressors in more than half of the

students, more frequently found in female than in male which was 58.22% and 33.3 % respectively ($p < 0.001$). Another study which was done by Naidoo et al. (2013) showed that 78% of undergraduate students had stress related symptoms. Only 16% of the total cohort sampled reported stress free life. Misigo (2015) investigated gender influence on perceived stress levels and coping strategies of undergraduate university students in Kenya. Results of the analysis showed a significant difference between stress mean score of male and female. ($DF = 185$, $T = 0.235$, $p < 0.05$). In addition, female students reported higher stress levels $F = 42.23$, $SD = 5.90$ than male $M = 40.13$, $SD = 6.5$. Several studies have linked students' gender and stress levels. This study seeks to understand the association between gender and perceived stress levels as well as the association between age and related stress symptoms.

Stress has been defined in a variety of ways by different scholars. It has been an issue of interest by social scientists. Richard Lazarus is generally considered as the father and pioneer of scientific study of 'stress'. He defined stress as a relationship between the person and the environment that is appraised as personally significant and as taxing or exceeding resources for coping. (Tyler, & Schmitz, 2018). Hans Selye argued that stress is physiological reaction in our bodies response to any change, threat or pressure put upon it. He added that our body tries to regain its normal state and protect itself from potential harm. Stress is inevitable, it is not possible not to experience stress periodically. Selye differentiated between positive stress (eustress) and unpleasant stress (distress) (Wang, 2009). Distress comes when the body reacts to stress in ways meant to protect against threats from predators and other aggressors (Yosef, 2010). In the contemporary society stressors may be in the form of heavy economic burden, unemployment, diseases and political upheavals among others (Monteiro, 2014). When the body encounters a perceived threat (distress) the hypothalamus, a tiny region at the base of the brain instigates the fight or flight response (Madlin et al., 2012). This system prompts the adrenal glands located at the top of the kidney to release adrenaline and cortisol hormones. Adrenaline is a hormone that increases heart rate, elevates blood pressure, and boosts energy supplies. Cortisol, the main stress hormone increases sugar glucose in the blood stream (Bettner, 2003). The body stress response is usually temporary. Once a perceived threat is over, hormones return to normal, hence heart rate and blood pressure return to baseline. The long term exposure to stress response system can lead to numerous psychological problems, including, depression, insomnia, hypersomnia, Post traumatic stress disorder as well as memory and concentration challenges (Esia-Donkoh et al., 2011). The term eustress means beneficial stress. It was coined by Hans Selye, consisting of the Greek prefix meaning 'good' literally meaning good stress (Hung, 2011). Eustress is the positive cognitive response that gives one's feelings of fulfilment and good feelings (Arshad et al., 2015). Selye argued that potential indicators of eustress may include responding to a stressor with a sense of meaning and hope. Eustress has also been positively correlated with life satisfaction and well-being. Experiencing acute illness is a form of distress, however distress can fuel physiological impact by positively influencing biological processes implicated in physical recovery as well as immunity (Venna, 2016).

Theories of stress examine; hormones, life events, personal and social factors and stress related outcomes. One of the theories that normally shed light on the sources and effect of stress is psychological theory of stress. The most remarkable proponent of psychological theory is Richard Lazarus (Adams et al., 2016). This theory views stress as the relationship between the events which happen to us, our attitude towards them and the way our body reacts (Yosef, 2010). This assumes that there is an interactive relationship between people and the environment. Environment has an effect on people and also human beings have an effect on the environment. Individuals can determine the effects the environment will have on them through their interpretation of the world and life in general (Esia-Donkoh et al., 2011). Stress is a 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 (Bhosale, 2014).

There has been a growing attention in investigation on causes and effects of stress among university students' population (Damodaran & Paul, 2015). Several studies show that being a university student is a risk factor for distress (Bhosale, 2014). Distress is harmful to psychological well-being of the students. Furthermore, a number of researchers found that distress is linked to dismal academic performance, absconding as well as low rate of graduation (Wang, 2005). Nonetheless, University students suffer from different kinds of stressors during their educational experiences (Ndegwa et al., 2017). Universities are at a higher risk of increased stress (Wanyoike, 2015). Demanding academic, financial constraints as well as interpersonal and intrapersonal relationships are among the major causes of stress (Esia-Donkoh, & Yelpler, 2011). University students therefore have a unique cluster of stressful experience and stressors. All this can add to normal stress of life and begin to have a negative effect on students (Krisher & Shechtman, 2016). University education life is one of the most exciting milestones of young people (Azilla et al., 2015). It is a place where students interact with people of diverse background and also gain opportunity to a higher level of education (Wang, 2005). Unfortunately, a significant number of young University students encounter challenges which contribute to high stress levels (Waghachaver et al., 2013). Many of them face difficulties in their academic life as well as their social life, hence to some of them stress becomes a way of living. Universities and colleges accord students many opportunities for psychological and academic

development. This transformation and transition from high school to tertiary institution may cause a number of stressful experiences in their lives (Naidoo et al., 2013).

The transition of students from high school to university is a major mile stone in their lives, however this changes are accompanied by a number of stressors (Bhosale, 2014). Female students are more likely to pinpoint relationship and interpersonal connections as primary sources of stress while male students may list finance as the main sources of stress (Hamaldehy, 2011). Whereas, studies indicate that universities students face stressful situation, few empirical studies have examined relationship between gender and age difference in perceived levels of stress (Herman et al., 2015). Furthermore, little research especially in developing countries have sought to find out whether there is significance relationship between gender and perceived stress levels. This study will find out between male and female which gender is largely affected by stress levels. Moreover, this study will also seek to determine whether there is a relationship between perceived stress levels and age.

II. METHODOLOGY

A quantitative study utilizing a descriptive cross-sectional research design was used to gather data from 33 second, third, fourth year psychology department students in a public university in Western Kenya (22 females and 11males. Researcher purposively sampled all the students in Psychology department hence census method was used which gathered data from all the undergraduate students in psychology department. Prior to the study, all participants were oriented to the administration protocol and the nature of the procedure. In addition, verbal explanation of the study was provided. Furthermore, students were informed early that the study participation was voluntary and that they could withdraw their informed consent at any time during and after testing. If subjects had difficulties understanding the procedure, additional explanation were provided. Participants were also informed about the purpose of the study and were assured of confidentiality. The tool consisted of three sections. Demographic profile of the participants was incorporated in section A. Section B consisted of the perceived stress scale (PSS) which was developed by Sheldon Cohen (1988). Perceived stress scale was used to estimate the level of perceived stress of an individual respondent. Respondent was required to encircle the appropriate score based on the scale ranging from 0 (never) to 4 (very often).

The Perceived Stress Scale (PSS) is the most widely used psychological instrument for measuring the perception of stress. It is a measure of the degree to which situations in one's life are appraised as stressful. Items were designed to tap how unpredictable, uncontrollable, and overloaded respondents find their lives. The scale also includes a number of direct queries about current levels of perceived stress. The PSS was designed for use in community samples with at least a junior high school education. The items are easy to understand, and the response alternatives are simple to grasp. Moreover, the questions are of a general nature and hence are relatively free of content specific to any subpopulation group. The questions in the PSS ask about feelings and thoughts during the last month. In each case, respondents are asked how often they felt a certain way.

Section C contained the cluster of causes of stress. It consisted of four dimensions of sources of stress which were; financial, academic, interpersonal and intrapersonal relationship. Respondents were required to choose appropriate score for the four cluster of the generation of stress. The goal of this study was to provide rich contextualized understanding of student experience on the study in question. Although generalization require extrapolation that can never be fully justified, but the findings are always embedded within a context (Edward, 2010). In a quantifiable research, generalizability is considered as a major criterion for evaluating the quality of study. Generalizability is a thorny, complex and illusive issue even in studies that are considered to yield high quality evidence (Hollestin, 2011). Transferability will be applicable in this study. Readers can make inferences about extrapolating the finding to other setting. The main obligation of transferability is done by the reader and consumer of the research (Edward, 2010). Their role is to evaluate the extent to which the findings apply to a new situation. It is the reader and user of the research who 'transfers' the result (Hollestin, 2011). Readers can make good judgment about their proximal similarity of the study context and their own environment.

III. RESULTS

The results showed that there is a significance difference in the percentage scores between male and female as well as age factor in perceived stress levels. The questionnaire contained information on the student's demographic characteristics that the researcher considered significance in this study. The number of the students in the sample were 33. The distribution of the sample (frequencies and percentages) according to gender, age, levels of study are presented in this section.

Table 1: Age of The Students.

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-20 years	7	21.2	21.2	21.2
	21-22 years	19	57.6	57.6	78.8
	23-25 years	5	15.2	15.2	93.9
	26 years and above	2	6.1	6.1	100.0
	Total	33	100.0	100.0	

The age between 21-22 years had a high number accounting for 57.6% of the total sample.

Figure 1: age of the students.

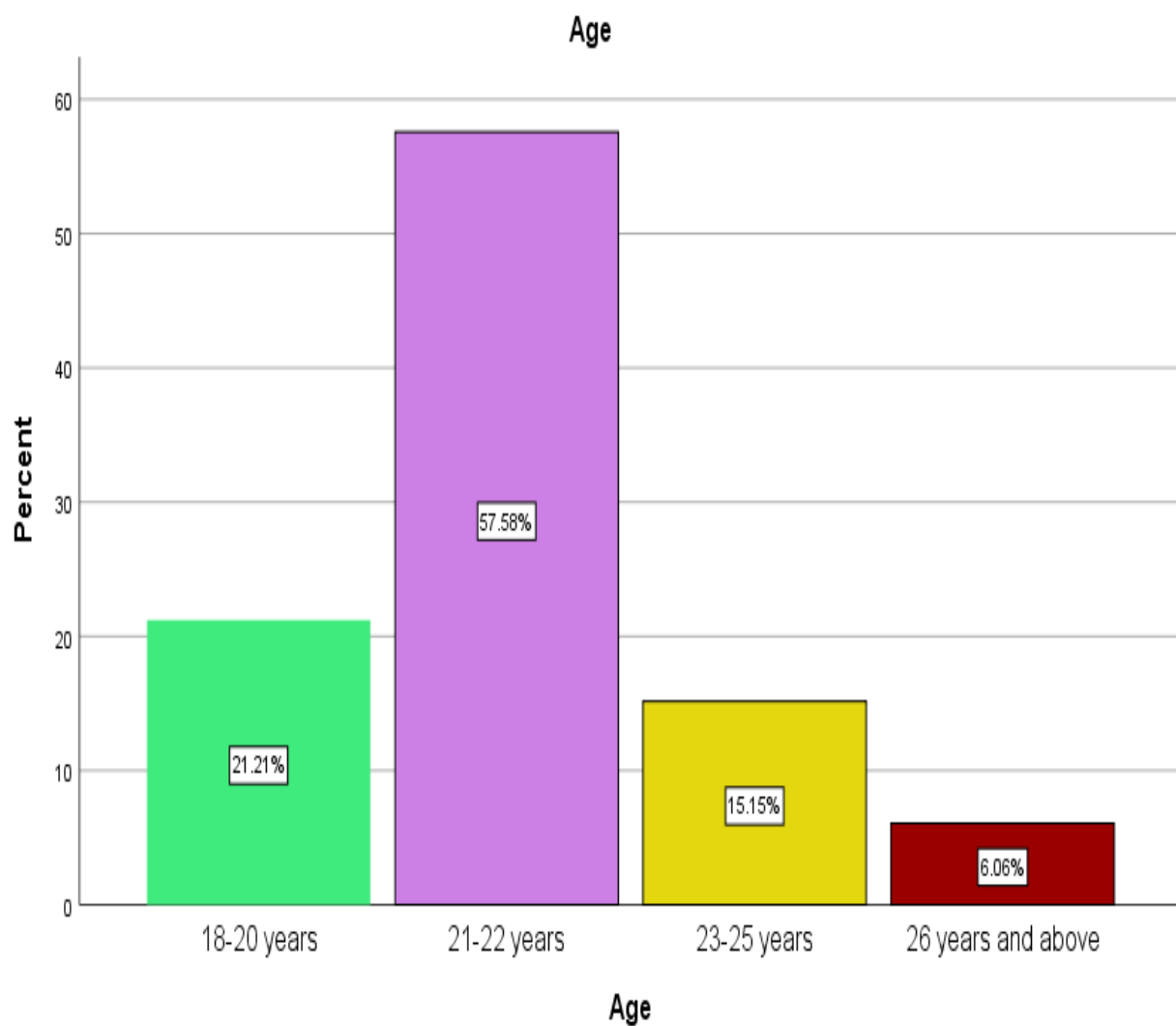


Table 2: Gender of The Students.

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	11	33.3	33.3	33.3

	Female	22	66.7	66.7	100.0
	Total	33	100.0	100.0	

Total number of male and female were 11 and 22 respectively. Females had a percentage of 66.7% and males 33.3%.

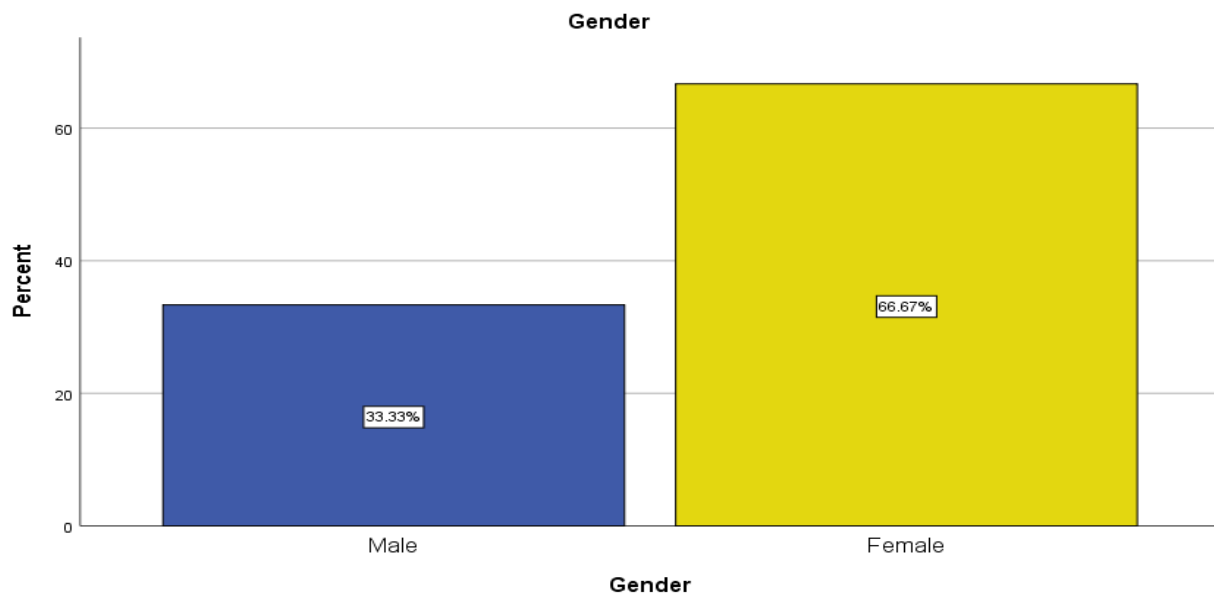


Figure 2: Gender of The Students

The distribution of the respondents according to their gender is presented in Table 2 and Figure 2. From the distribution it can be seen that there were more female students (67.7%) compared to male (35.3%). This trend is generally common in Psychology and counseling department in some universities in Kenya which is characterized by wider gender disparities in this discipline. All the students who were enrolled in psychology department responded to this study. Psychological courses appear to attract more female students as opposed to their male counterparts in psychology and counseling departments especially in Kenyan universities. The gender disparity may be attributed to the perception in which social science and humanity courses are sometimes considered to be “feminine”.

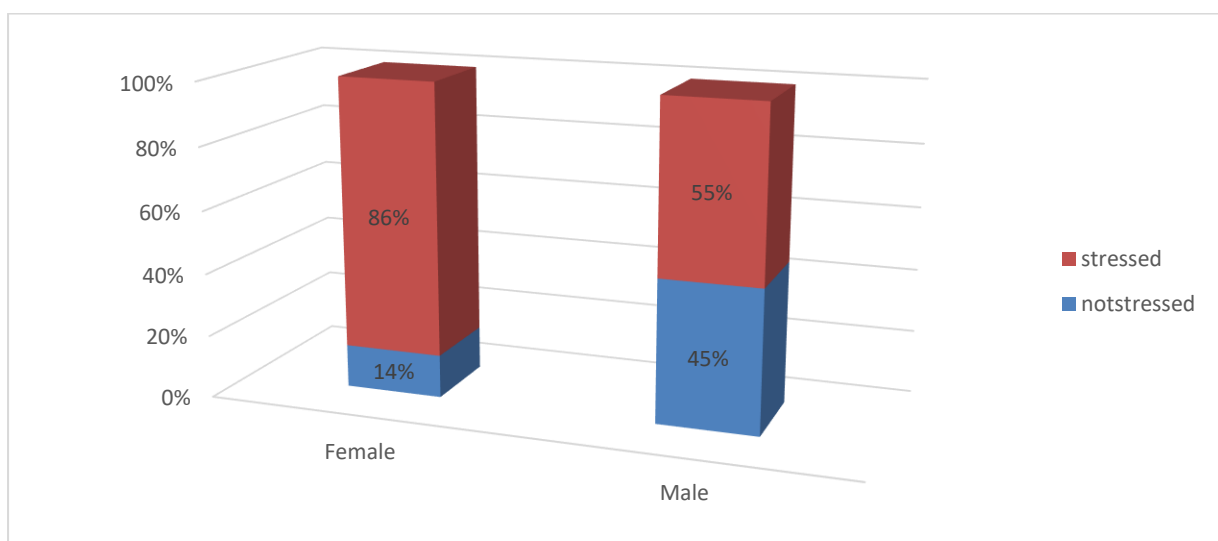


Figure 3. Gender and perceived Stress levels

Figure three shows that 86% of the female had perceived stress while 14% had no perceived stress. On the other hand, 55% of the male had perceived stress while 45% had no stress. This results shows that females had a higher percentage of perceived stress.

IV. DISCUSSION

This section discusses the study results in line with the objectives of the study. The key findings were derived from data analysis and interpretations. In addition, this section presents a discussion of the findings as presented within the objectives. The link between the findings and theoretical as well as literature review are also discussed.

The relationship between gender and stress levels was examined in this study. The results indicated that 86% of the female had significant perceived levels of stress, on the other hand, 55% of the male had remarkable degree of perceived stress. Results of this study showed female students reported higher levels of perceived stress than their male counterparts. These findings are consistent with previous studies which revealed that female normally report higher levels of stress than male peers. The argument advanced by Adam et al. (2016) that women are more likely to be stressed than men is supported by Anbumalar et al. (2017). Stress among university student has been a topic of interest in many studies. General sources of stress among students includes; academic demands, negative pressure from peers, financial challenges as well as adjusting to the new social environment (Gomes et al., 2016). High levels of stress in students may motivate drugs and substance abuse and other unhealthy habits and life styles. When stress is perceived negatively or become chronic it may affect their mental health as well as academic performance (Kwaah, 2017).

This study is in agreement with Adasi et al. (2020) that female students have high levels of stress as compared to their male counterparts. Female learners are more likely to be affected by specific stressors such as the number of courses offered in a semester, conflict in time management and relationships with significant people in their lives. On contrary male students are inferably stressed by academic requirements and financial pressure (Adasi et al., 2020). Consistent with other trends in the literature, the current finding established a relationship between age and perceived levels of stress. Older students (26 years and above) had low perceived stress levels as compared to younger students (18-25 years). The observation was aligned with Monteiro et al. (2014) who argued that older university and college students significantly predict the use of problem- focused engagement and have more effective coping resources. As students in tertiary institution mature, they are able to adopt to a range of behavioral, cognitive and emotional strategies to cope with stressful life events (Amuda et al., 2016).

V. CONCLUSION

The purpose of this study was to investigate the levels of perceived stress among all the undergraduate students in psychology department at a public university in western Kenya. The study also examined the students' gender and age on perceived levels of stress. It was found that majority of the students had perceived stress at moderate and high levels. The result of this study showed that female and younger students have more perceived stress levels as compared to male and older students. There is an urgent need for university management to enhance guidance and counseling services in order to address mental health issues among students. Further research is necessary to find out the coping mechanism of students with perceived high magnitude of stress. This will furnish policy makers with effective strategies that can be utilized to mitigate high levels of stress.

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