



An Examination of Employee Wellbeing and Work-Life Balance in a Higher Educational Institution in Jamaica

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Abstract

Introduction: People are expected to simultaneously work and balance their lives in today's society. The expectations are so vast that many people experience burnout. Therefore, burnout is a good indicator of whether people are adequately experiencing good health and/or having a certain level of well-being

Objective: This study employs the Maslach Burnout Inventory (MBI) to assess burnout among employees at a Higher Educational Institution, Jamaica, and how to interpret, collect and analyse the data are presented in the section entitled 'methodology'.

Methods and materials: This study employed a probabilistic explanatory cross-sectional research design. A standardized instrument was used to collect the data for this research.

Findings: The mean value for the overall MBI is 40.8 ± 12.6 (95% CI: 37.8-42.7), with mean values being more than 30 and this indicates a high level of burnout among the sampled respondents. As such, there is a high burnout among staffers at HEI, and belief of low-level of personal achievement (8.6 ± 7.7 , 95% CI: 7.7-9.8). It can be deduced from the current findings that people believed that HEI is doing little as it relates to their personal achievement or accomplishment. In addition, there is moderate external burnout experienced by employees of HEI (7.0 ± 5.1 , 6.2-7.8, maximum value is 18) and this suggests that burnout of employees is substantially owing to HEI's milieu and not in general.

Conclusion: There warning signs that stress is high among the employees of this organisation(i.e., low employee wellbeing and work-life balance). Stresses related to toxic workplace climate and work demands, resource insufficiency and management related deficiencies needs to be significantly reduced and where possible eliminated.

Keywords: Employee well-being, job performance, stress, work-life-balance.

Introduction

People are expected to simultaneously work and balance their lives in today's society. The expectations are so vast that many people experience burnout. Therefore, burnout is a good indicator of whether people are adequately experiencing good health and/or having a certain level of well-being. Studies have empirically established that 'burnout' is a feature of high-stress jobs including nursing (Jennings, Bakker, Le Blanc, & Schaufeli, 1997, 2005; Maslach and Jackson, 1982, 1983; Maslach, Schaufeli and Leiter, 2001). The issue of stress resulting from workload is well documented in the literature (Selye, 1956; Lazarus & Folkman, 1984; French & Caplan, 1972), and burnout which is used to assess stress levels on the job has been computed by way of Maslach Burnout Inventory (MBI). In fact, MBI is the most widely employed measure of burnout.

MBI developed by Christina Maslach, Susan E. Jackson, Michael P. Leiter, Wilmar B. Schaufeli and Richard L. Schwab to assess burnout among people in organizations, which has been included to assess burnout among college students. It is a self-reported survey of some 22 items. The items are grouped under three areas: 1) emotional exhaustion (see Annex 1- Section A), 2) cynicism or depersonalization (see Annex 1, Section B) and inefficacy (reduced personal accomplishment)-see Annex 1, Section C. Hence, it is a psychometric measure that is a multidimensional conceptualization of burnout. Over 25 years have elapsed since it was first published and many other studies have validated its appropriateness in assessing burnout. How to interpret MBI is presented below, which is taken from MBI self-test:

Section A: Emotional Exhaustion

Burnout (or depressive anxiety syndrome): Testifies to fatigue at the very idea of work, fatigue, trouble sleeping, physical problems. For the MBI, as well as for most authors, "exhaustion would be the key component of the syndrome." Unlike depression, the problems disappear outside work: Total 17 or less: Low-level burnout; Total between 18 and 29 inclusive: Moderate burnout; and, Total over 30: High-level burnout.

Section B: Depersonalization

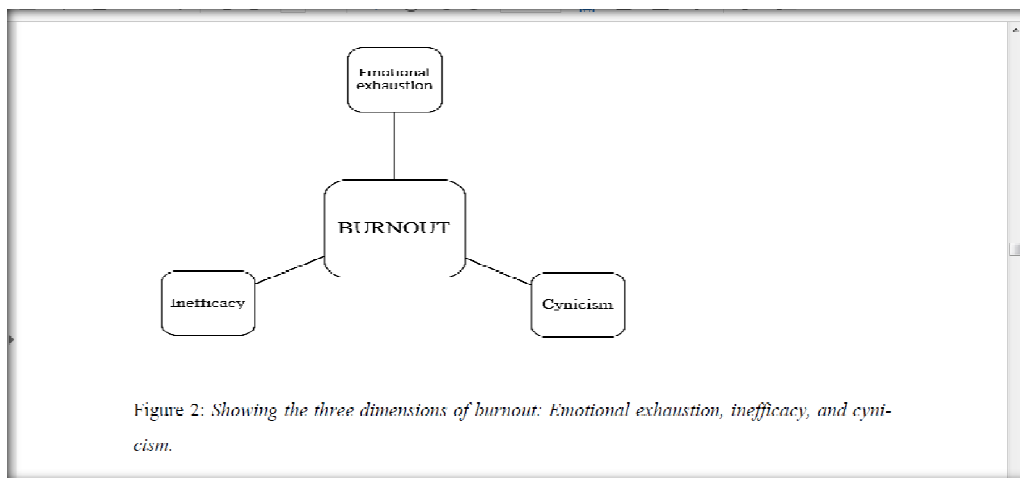
"Depersonalization" (or loss of empathy): Rather "dehumanization" in interpersonal relations. The notion of detachment is excessive, leading to cynicism with negative attitudes with regard to patients or colleagues, feeling of guilt, avoidance of social contacts and withdrawing into oneself. The professional blocks the empathy he can show to his patients and/or colleagues: Total 5 or less: Low-level burnout; Total between 6 and 11 inclusive: Moderate burnout; and, Total of 12 and greater: High-level burnout.

Section C: Personal Achievement

The reduction of personal achievement: The individual assesses himself negatively, feels he is unable to move the situation forward. This component represents the demotivating effects of a difficult, repetitive situation leading to failure despite efforts. The person begins to doubt his genuine abilities to accomplish things. This aspect is a consequence of the first two: Total 33 or

less: High-level burnout; Total between 34 and 39 inclusive: Moderate burnout; and, Total greater than 40: Low-level burnout.

It should be noted here that high score on Section A and Section C



Literature review

A rapidly growing number of people have been experiencing psychological strain at their workplaces. In most industrialized countries, absenteeism, turnover rates increasing, and an increasing number of workers are receiving disablement benefits because of psychological problems. Why is this so? The concept of burnout, starts with prolonged stress and demands at work, that may eventually lead to an individual gradually losing energy, functionality and eventually withdrawal and becomes exhausted emotionally. The term “burnout” was first formulated by Herbert Freudenberger, in the 1970s, since then over five thousand books were published on the subject. (Freudenberger, 1974) first defined this phenomenon as “the extinction of motivation or incentive, especially where one’s devotion to a cause or relationship fails to produce the desired results.” (Peter Janssen, 1998) Pines and Aronson defines burn out as “A state of physical, emotional, and mental exhaustion caused by long term involvement in emotionally demanding situations.” Defined by the Collins English Dictionary burnout is “a total loss of energy and interest and an inability to function effectively, experienced as a result of excessive demands upon one's resources or chronic overwork.”

There is only one measure that is used to assess burnout in using all three core dimensions, this is the Maslach Burnout Inventory (MBI). Maslach defined burnout in the 1970s as “a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who do ‘people work’ of some kind (Barbara Loera, 2014).” The three dimensions developed were emotional exhaustion, personal accomplishment and depersonalization, which reflect the focus for those persons in occupations that require them to interact with several persons. Two main surveys were developed the MBI-Human services survey (MBI-HSS), designed for those individuals within that health sector and MBI-educators survey (MBI-ES) for educators. Over the years the issues of burnout has gotten quite a few attentions, but this is not to just person who are in highly interactive jobs, as teachers and health care professionals, but also the public. This lead to the development of the MBI- general survey

(MBI-GS), this survey still assesses the three dimensions, as used in the other two previously mentioned surveys, however, using slightly revised items, maintaining a consistent factor structure across a variety of career areas. (Christina Maslach, 2001)

An evaluation of the three dimensions of burnout by Maslach shows why each is important to be included in the survey to provide the best evaluation. Emotional exhaustion is the feeling of being fatigued and tired at work, this is the most reported and therefore the more thoroughly inspected. The research shows that, since so many persons can identify to exhaustion and it is the most easily identified, then the others might be unnecessary. However, the mere fact that it is an integral part of burnout does not mean it is not the only determining factor. The second aspect of burnout using MBI is depersonalization which is when an individual reaches the point of being hostile or uncaring to the persons they should be serving in the workplace. This is an attempt to distance one's self from the persons you are expected to serve. This is an immediate reaction to exhaustion and creates a strong relationship with cynicism, which has been found in many research on burnout. The third dimension of the MBI is reduced personal accomplishment, an employee's feeling that he or she may not be accomplishing anything worthwhile in their career field. The research done by Maslach shows that this usually develops because of either emotional exhaustion or depersonalization or a combination of both. This is understandable as it can be difficult to feel any form of accomplishment when one is either exhausted or feels indifferent to the persons whom he or she is serving.

According to Maria (2015):

In 2013, National Health Service (NHS) in England issued a report about nurses leaving the profession due to occupational stress and inability to provide nurse assessed good quality care. The Royal College of nursing revealed that in a survey carried out in 2013 involving 10,000 nurses, 62% of them contemplated resigning from their job the previous year citing stress. 61% cited hectic schedules as being a hindrance to providing good quality care and 83% felt an increase in workload which has seen 5000 nurses leaving the profession in a three-year period (RCN 2013)" (p. 7)

Research has shown that workaholic, younger people, females, singles and highly educated people. Over the last three years physician has seen a 9% increase in the incidents of burnout. A study of the working population in Northern Sweden the prevalence of burnout is 13% with women at 16% and men at 10%. It was found that in women work related issues has the greatest association to burnout and to a large extent related to the socioeconomic situation. The study suggested this association should be considered in further study of burnout. (Sofia Norlund, 2010) In 2008 report by the United States Bureau of Labor Statistics (Statistic, 2009) shows that women are underrepresented in the following occupations: managers (37%), computer operators (25%), architects and engineers (14%), scientists (46%), lawyers and judges (40%), dentists (27%), physicians and surgeons (31%), police officers (15%), and correctional officers (30%), to name a few. In contrast, men are underrepresented in the following occupations: nurses (8%), physician assistants (33%), community and social workers (21%), educators and librarians (26%), telemarketers and customer service representatives (33%), childcare and elderly care workers (4%), office support workers (25%), paralegals (12%), claim adjusters, accountants, and

auditors (35%), and food preparation and serving workers (35%). This showed that when men and women are employed in jobs that fit the stereotype of male and female job.

Now that we understand the idea of burnout, we now need to figure out what are the causes of this. Historically, burnout materializes itself in human service, though not limited to it. The journal for sociology and social welfare defines human service as social services designed to meet human needs or required for maintaining or promoting the overall quality of life of the prospective service populations. (Zins, 2001) Borritz in his PhD thesis stated that burnout can be caused by several factors, these include a great demand on hiding ones feeling, low possibility of development or even promotion, there is little to no meaning of work, high work pace or roles are not clearly defined. (Borritz, 2006) On the other hand, according to (Wilmar B. Schaufeli, 2017), taking into consideration that human service workers are usually giver, they provide services, whether it be giving attention, support, guidance or comfort, they are constantly giving, while the recipient of care, simply receives. This constant giving can put a strain produced through this asymmetrical relationship eventually leading to a depletion in the emotional resources of an individual.

Let us now look at the effects that burnout has on an individual. Though some persons hold the view that stress is a tell tail sign that your life is meaningful and possible successful, this might not always be the case, especially when such stress lead to burnout. Alexandra Michel published an article in the publication of The Association for Psychological Science entitle “Burn out and the brain,” stress can cause strain and problems with the brain such as memory, attention, creativity and problem-solving issues. (Michel, 2016) In a study done by Amita Golkar a psychological scientist, her and her colleagues from the institute in Sweden discovered evidence that burnout can cause alterations to the neural circuits of the brain. Stress of this nature weakens the neurological abilities of an individual to bounce back when faced with negative situations, which in turn causes more stress. (Golkar, 2014)

Now that we have covered the concept and cause and effects of burnout, we will now shift our focus to the some of the individuals usually experiencing this, such as teachers, nurses and administrators. It is important to note that anyone can experience burnout, whether a student or a simple vender on the street corner. The London Metropolitan University, School of Psychology, did a study on the need for achievement, burnout and the feeling of leaving school. The study indicated that the need for achievement lowers the risk of burnout. The study indicated three component of study related burnout, emotional exhaustion, cynicism, and reduced efficacy. Emotional exhaustion promotes cynicism and in turn cynicism promotes reduced efficiency. These three factors can cause a student feeling to leave his or her academic studies. This study also showed that study-related burnout and work-related burnout are basically the same. (B.Moneta, 2011) In a Gleaner article entitled “Students experiencing burnout after GSAT - psychologist” Educational psychologist Kellie-Anne Brown Campbell expressed her concerns for those students starting high school and have already experiencing burnout. She explained that pressure put on students to do well may be affecting them psychologically. (Poyser, 2016) This is a clear indicated that burnout is not only limited to working persons but even children.

Nurses are important to the health sector of every country; however, their jobs can be strenuous. In an Observer article the Nurses Association of Jamaica stated that resignation due to burnout has led to a 1:35 patient to nurse ratio within the health sector. (DUNKLEY, 2011) (Pinto, 2017) indicated that the long hours with a salary that does not match-up, working environment and lack of involvement in decision making, the high risk of unemployment and relationship with one's superiors are some of the cause burnout in healthcare professional. The study went on to point out that research shows nurses believe that the source providing the greatest stress in their occupation include, the patient to nurse ration, lack of technical and human resources and the technical and physical conditions I which they work. (Brian E.Lacy, 2017) reported that issues of burnout has gone unrecognized or unreported, and may be affecting up to 60% of family practice provider and one-third of gastroenterologists. This not only limited to these individuals but also younger physician and those individuals doing jobs that have risk procedures. They went on to state that this may lead to suicide, drug and alcohol abuse or suicide, thus indicating the importance that it be addressed.

Teachers are also a part of a profession that demands a lot of them It is agreeable that dealing with one child or two children that is your own is "okay," however, dealing with numerous children, with varying background and personalities can pose a problem. An Australian study done by Howard and Johnson indicated that the ten main causes of stress to teachers were "teaching students who lack motivation; maintaining discipline; time pressures and workload; coping with change; being evaluated by others; dealings with colleagues; self-esteem and status issues; problems dealing with administration/management; role conflict and ambiguity and poor working conditions" (Howard, 2004) In 2016 the reality of stress and teacher became a deadly reality in Jamaica. (Johnson, 2016) In a Gleaner article entitled "Too stressed - Another teacher dies, JTA blames being overworked, expert says not so fast", and English teacher at the Spanish Town High School died after collapsing after a speech she gave at a workshop. Though this has been the third teacher to die in less than a month while on the job, psychologist Dr Leachim Semaj said that teaching "has always been stressful", there putting a link to this death and stress with the proper assessment might basically jumping to conclusion, though this might be so it raises the question as to whether this issue is given the priority that it needs.

Everyone experiences stressful period, children, working adult, even celebrities. But what happens when these gets out of hand? What happens when we are burnout? Do we know the signs to look for in ourselves and the individuals around us? According to an online article entitled (Causes and Prevention of Burnout in Human Services, 2012) some of the sign that we can look out for of burnout are:

1. Withdrawing from responsibilities
2. Isolating self from others
3. Procrastinating, taking longer to get things done
4. Using food, drugs, alcohol to cope
5. Taking out frustrations on others and skipping work or coming in late and leaving early.

(Staff, 2015)The Mayo Clinic’s website published an article entitled “Job burnout: How to spot it and take action” which indicated that by asking and answer the following question an individual can identify if he/ she is burnt out:

1. Have you become cynical or critical at work?
2. Do you drag yourself to work and have trouble getting started once you arrive?
3. Have you become irritable or impatient with co-workers, customers or clients?
4. Do you lack the energy to be consistently productive?
5. Do you lack satisfaction from your achievements?
6. Do you feel disillusioned about your job?
7. Are you using food, drugs or alcohol to feel better or to simply not feel?
8. Have your sleep habits or appetite changed?
9. Are you troubled by unexplained headaches, backaches or other physical complaints?

Maria (2012) postulated that:

Burnout is a problem in nursing. These studies and others indicate the prevalence of burnout in the nursing profession. Burnout has a negative impact on the performance of an individual (Maslach et al 2001). For nurses, this is crucial information as this directly puts patients’ wellbeing and lives in danger as well as going against the code of ethics for nurses. Some of the elements in this code require nurses to:

1. Advocate for health promotion and safety of patients
2. Develop own competence throughout their practice as well as being mindful of own health.
3. Active participation and contribution to nursing research and development
4. Collaborate with others in the health care team to promote health and safety of patients (International Council of Nurses 2015). How can nurses experiencing burnout be able to actively participate in health promotion and provide good quality care? How can nurses who are struggling with emotional exhaustion and depersonalization be able to cater to the emotional wellbeing of others? These are all important questions that should be addressed (Maria, 2012, pp. 7-8).

The issue of burnout among health care professionals is well documented in the literature and some potent questions were asked by Maria (2012) as they would answer questions relating to performance of these people, and the quality of health care they deliver to patients. To answer those question Maria (2012) and other researcher have sought to employed Maslach burnout inventory (Lorenz, Benatti, and Sabino, 2010). Maslach et al. (2001) had constructed an index to assess burnout and this is categorized into three dimensions. These are 1) emotional exhaustion, 2) depersonalization and 3) efficacy. A part of the rationale for this index is to capture the wellbeing of people, quality of life and quality of care provided following the experience of burnout. From a sample of 667 Canadian nurses, Leiter and Maslach (2009) found that some of sampled people’s working lives account for their burnout, and that this resulted in job separation (or turnover).

Burnout among nurses was not only found to be associated with job separation or worker retention, it was also found to be correlated with high infection rates, which was caused by heavy workload including heavy patient care delivery (Cimoitti et al 2012; Leiter & Maslach 2009). In

fact, Cimoitti et al.'s (2012) research revealed that whenever burnout was low and staff was adequate, less infections occurred among nurses.

The literature has provided evidence that the 'burnout' phenomenon is not atypical to Jamaica (Patrick & Lavery, 2007; Azeem, Nazir, Zaidi, & Akhtar, 2014; Jennings,) as well as outside of the health care system (Bakker, Demerouti&Sanz-Vergel, 2014; Leiter, Bakker, &Maslach, 2014; Maslach, Schaufeli& Leiter, 2001), which supports its usage to assess burnout among staff at a tertiary educational institution. This study employs the MBI to assess burnout among employees at A Higher Educational Institution, Jamaica, and how to interpret, collect and analyse the data are presented in the section entitled 'methodology'.

Methods and materials

Research Design

This study employed a probabilistic explanatory cross-sectional research design. It was a cross-sectional probability sample survey (i.e., stratified random sampling) of employees at a Higher Educational Institution (HEI) in Jamaica. A standardized instrument was used to collect the data for this research. This survey instrument was used to provide data from a large sample of the population, which as to answer the research questions including determining factors that, explain burnout among staffers at HEI, Jamaica.

The survey instrument is a standardized questionnaire comprised of 45 questions, with none being open-ended. The instrument also had Socio-demographic, Social items including items on burnout. The dependent variable is burnout and the independent variables are the assumed factors that contribute to burnout.

Population and Sampling

The participants of the study consisted of employees at higher educational institution who are currently (December 31, 2017) at work. The sample frame consists of 522 personnel who are employed at the above mentioned institutions for a minimum of one month-the sampling frame was obtained from the human resource office at higher educational institution. Stratified random sampling was used to select the employees who participated in the study. The number of persons in the population from each category can be seen in Table 1. The sample size is 222 with a margin of error of 5 percent (as well as being verified by Survey Monkey).

$$Sample\ Size = \frac{\frac{z^2 \times p(1-p)}{e^2}}{1 + (\frac{z^2 \times p(1-p)}{e^2 N})}$$

where $Z_{\alpha/2}$ is 1.96 (95% confidence interval), N is 522, and error is 5%

Table 1: Staff Composition at HEI, 2017

FACULTY/STAFF COUNT 2017				
Year	Faculty	Staff	Adjunct	Total
As at December 2017	138	384	417	939

Data Collection

The sampled employees were required to complete the Maslach Burnout Inventory, sociodemographic characteristics and General Outside-Work Stress Index. All participants who agree to participate in the study will be given seven days in which to complete and return the questionnaires. Participants are to drop the completed questionnaires in a secure box or placed them in an enveloped and send them to department of Quality Management and Institutional Research. The participants were provided with the office contact of the researchers in order to facilitate inquiries about the survey instruments and or to make alternative arrangements for the collection of questionnaires.

The researchers informed participants by way of 1) the administrators, and 2) via the E-Bulletin on the HEI's website (i.e., intranet). All participants who agree to participate in the study will be given a seven days period in which to complete same after which they will be placed in a designated box that will be place on the different units. All the boxes will be collected by the researchers at the end of the period.

Inclusion and Exclusion Criteria

The current study comprises of all employees who are employed to a Higher Educational Institution (HEI) at the time of the study. As such, those that were included were administrators (president, vice presidents, and senior managers), faculty, ancillary staffers, security officers, and maintenance personnel, and student workers as well as consultants (including adjunct staffers) were excluded from the study. The rationale for the exclusion of the adjunct faculty and other consultants is simple because they are not a part of the normal decision-making apparatus of the university or its functionaries except being a facilitator /lecturer or a special project.

Conceptualization and Operationalization

The variables to be measured are 'burnout' among employees (the dependent variable) and the factors accounting for the 'Burnout' (the independent variables). The instruments that will be used to measure the variables are The Maslach Burnout Inventory (MBI) which is by far the most widely used, accepted, valid, and reliable measurement tool of stress and burnout. The 22 total items are broken up into the three themes with nine items relating to emotional exhaustion, five to depersonalization, and eight to accomplishment. Each item is also rated on a frequency and intensity scale. The frequency scale ranges from zero (never) to six (everyday). The level of 'burnout' is determined by the summarization of all the items in Maslach Burnout Inventory. The large score indicate greater degree of 'burnout' and vice versa. Each participant was required to complete the above mentioned instrument plus two others developed by the researchers to obtain demographic information and general outside-work burnout scale (Section D). The MBI self-test

instrument consist of twenty-towitems on a four-point Likert-type scale: SD: Strongly Disagree; D: Disagree; A: Agree; and SA: Strongly Agree.

Validity and Reliability

Thomas Kuhn who had a doctorate in physics argued expensively on the validity and verifiability of qualitative inquiry despite its seemingly non-objectivism. Knowing how things operate was not singly embedded in empiricism, objective measurability and statistical analyses (Balashov and Rosenberg, 2002; Kuhn, 1996) as meaning accounts for actions that are sometimes outside of the realm of objectivism. It can be extrapolated from Kuhn's perspectives that validity and reliability is equally important in all scientific inquiry, and the issues of conceptualization and measurement must include an aspect of validity and verification.

For any research project to be credible, its reliability and validity have to be clearly established (Wiersman, 2000). As such, the necessary steps taken to ensure that the proposed project has both internal and external validity and internal and external reliability on the instrument used are outlined. According to Wiersman, reliability is concerned with the reliability and consistency of the methods, conditions and results while validity deals with the accurate interpretability of the results and the generalizability of the results.

In order to ensure a high response rate on the questionnaire, the researchers ensured that all steps were taken to have the number of items not more than is necessary to elicit the required information, thus avoiding unnecessary and ambiguous questions.

In this study, reliability of some items was based on *Equivalence Reliability* - Cronbach alpha (Neuman, 2006, 180). This was compared based on high or low values of Cronbach alpha. Reliability was increased by way of using 1) previously tested items (or questions), 2) pre-testing, testing and post-testing of items. The researcher adheres to the following types of measuring validity - 1) Face validity; 2) Content validity, 3) Criterion Validity, and 4) CoHEIrrent validity (Neuman, 2006, 183).

Several studies carried out by Iwanickiand Schwab (1981) and Gold (1984) support reliability such as the three-factor structure and internal reliability. Cronbach alpha ratings of 0.90 for emotional exhaustion, 0.76 Depersonalization, and 0.76 for Personal accomplishment were reported by Schwab; very similar ratings were reported by Gold. Time periods of a few weeks, 3 months, and 1 year were used for test-retest reliability. Scores in the few week range were the highest (.60-.82) whereas scores in the year range were the lowest (0.54-0.60). The test manual covers validity for the MPI by noting patterns that appear again in the field. For example, male teachers score higher then female in the depersonalization scale, which is consistent with other helping professions. Before the researcher begins collecting data from the sampled participants, the other instruments was brought through testing, retesting and modifications, which are referred to as pilot testing process. The instrument was forwarded to my supervisor who vetted the items. The modifications were madeto the instrument based on the comments of qualitative and quantitative research methodologists. The instrument was then be given to measurement practitioners, statisticians, social researchers and demographers for them to vet the items. The

comments of those individuals was incorporated in the instrument and then it was pilot tested on a similar group of employees.

Ethical Issues

All the participants were required to give their consent prior to being included in the study. The participants were assured of confidentiality and anonymity unless permission is granted to do otherwise. This was done way of not requesting any personal marker that could be associated to the respondents. They were advised that at any time during the study they would withdraw and return the instrument with any form of penalty.

Data Analysis

For this study, data was stored, retrieved and analyzed using the Statistical Packages for the Social Sciences (SPSS) for Windows version 28.0 (SPSS Inc; Chicago, IL, USA). Descriptive statistics, percentages and frequency distributions was performed on the available data. Ordinary least square (OLS) regression was employed to examine the factors that account for 'burnout' among the sampled respondents. Cross tabulations will be utilized to examine associations (or not) among two non-metric variables. Independent sample t-test was employed to determine the difference between two variables-one being metric and the other being dichotomous nominal variable. Statistical significance will be determined a p-value less than or equal to five percentage points (≤ 0.05) - two-tailed.

Results: Analyses of Findings

The sampled population is one-hundred and sixty-four employees of the intended two hundred and twenty-two employees (i.e., a response rate of 73.9%). Selected demographic characteristics (i.e., gender, age, staff composition and length of service) are presented in Table 2, below. Of the sampled respondents (n=164), 95.3% responded to the question on gender; 92.3% on the staff categorization, and 91.7% on being a member of the Seventh-day Adventist faith (i.e., SDA). Eight-five and two-hundredth per cent of sampled respondents are members of the SDA faith, 58.4% females, and 57.7% classify themselves as other.

Table 2: Demographic characteristics of sampled population, n=164

Characteristic	n (%)
Gender:	
Male	67 (41.6)
Female	94 (58.4)
Staff categorization:	
Administrative	4 (2.6)
Casual	6 (3.8)
Faculty	40 (25.6)
Sector Managers	16 (10.3)
Other	90 (57.7)
Member of SDA faith:	

Yes	132 (85.2)
No	23 (14.8)
Age	42yrs. 9 months±12yrs.8 months, 40yrs.6months - 45 years
Length of service	9 years (i.e., median), 36 years (range)

Using Independent Sample t-test, Table 3 presents a disaggregation of age and length of service by gender of respondents. The average age of male-respondents was 44.0 years compared to 42 years for female-respondents, with there being no statistical difference between both ages ($t=0.897$, $P = 0.371$). Likewise no statistical difference emerged between the length of service for male-respondents (9.9 years) and female-respondents (11.0 years)— $t=-0.841$, $P = 0.401$). This means that the average length of time worked by male-respondents is statistically the same as that of female-respondents.

Table 3: Gender disparity by age and length of service,

Characteristics	Mean ± SD, 95%CI
Age of respondents	
Gender:	
Male	44.0yrs±13.7yrs (n=54), 40.8-48.5 yrs.
Female	41.9yrs±12.1yrs (n=75), 40.1-45.6 yrs.
Length of service	
Gender:	
Male	9.9yrs±8.2yrs (n=64), 7.5-12.5 yrs.
Female	11.0yrs±8.0yrs (n=84), 9.4-13.4yrs.

The reliability coefficients for the sub-scales are as follows: 0.937 for Emotional Exhaustion, 0.816 for Cynicism or depersonalization, 0.839 for Inefficacy and 0.773 for Outside- higher educational institution Stress Index (see Table 4). Such values provide ample evidence that sub-scales as well as the ONSI are very good to use to assess both burnout and stress among staffers at A Higher Educational Institution (HEI).

Table 4: Reliability analysis of Maslach Burnout Inventory (MBI) and Outside-HEI Stress Index (ONSI)

Characteristic	Cronbach's alpha
MBI	
Emotional Exhaustion	0.937
Cynicism or Depersonalization	0.816
Inefficacy (reduced personal accomplishment)	0.839
ONSI	0.773

Table 5 presents descriptive statistics on total MBI and its sub-scales. The mean value for the overall MBI is 40.8 ± 12.6 (95%CI: 37.8-42.7), with mean values being more than 30 and this indicates a high level of burnout among the sampled respondents. As such, there is a high burnout among staffers at HEI, and belief of low-level of personal achievement (8.6 ± 7.7 , 95%CI: 7.7-9.8; Annex 2. It can be deduced from the current findings that people believed that HEI is

doing little as it relates to their personal achievement or accomplishment. In addition, there is moderate external burnout experienced by employees of HEI (7.0 ± 5.1 , 6.2-7.8, maximum value is 18) and this suggests that burnout of employees is substantially owing to HEI's milieu and not in general.

Table 5: Descriptive statistics for Maslach Burnout Inventory (MBI) and Outside-HEI Stress Index (ONSI)

Characteristic	Mean±SD, 95%CI
MBI sub-scales:	
Emotional Exhaustion	16.7±12.3, 14.8-18.6
Cynicism or Depersonalization	7.8±7.3, 6.6-8.9
Inefficacy (Personal accomplishment)	8.6±8.2, 7.4-9.8
Total score for MBI	40.8±7.7, 37.8-42.7
ONSI	7.0±5.1, 6.2-7.8

Tables 6-8 present percentages and frequency of each sub-scale of MBI. In fact, 98.8% of sampled respondents indicated that they feel lowly personally accomplished at HEI (i.e. Table 8). This means that employees at HEI do not feel personally accomplished working at the institution and this indicates a high-level of burnout. However, emotional exhaustion is relatively low among employees (59.3%)

Table 6: Categorization of Emotional Exhaustion

	Frequency	Percent	Valid Percent	Cumulative Percent
Low (less than or equal to 18)	99	58.6	59.3	59.3
Moderate (19 - 26)	25	14.8	15.0	74.3
High (Greater than or equal to 27)	43	25.4	25.7	100.0
Total	167	98.8	100.0	
Missing System	2	1.2		
Total	169	100.0		

Table 7: Categorization of Depersonalization

	Frequency	Percent	Valid Percent	Cumulative Percent
Low (less than or equal to 5)	84	49.7	50.9	50.9
Moderate (6 - 9)	23	13.6	13.9	64.8
High (More than or equal to 10)	58	34.3	35.2	100
Total	165	97.6	100	
Missing System	4	2.4		
Total	169	100		

Table 8: Categorization of Personal Achievement

		Frequency	Percent	Valid Percent	Cumulative Percent
	Low	163	96.4	98.8	98.8
	Moderate	2	1.2	1.2	100
	Total	165	97.6	100	
Missing System		4	2.4		
Total		169	100		

Table 9 presents the overall burnout of HEI’s employees in the sampled survey. Eight-six percentage of the sampled respondents indicated a high-level of general burnout. This means that 43 out of every 50 employees at HEI are experiencing a high-level of burnout or 8.6 out of every 10 employees. It can be deduced from the results that such a high-level of burnout is ingredients for 1) high staff turnover, 2) low job performance, 3) high-degree of dissatisfaction, and 4) lowly motivated people.

Table 9: Category of Total MBI

	Frequency	Percent	Valid Percent	Cumulative Percent
Low (less than or equal to 17)	8	4.7	4.8	4.8
Moderate (18 - 29)	16	9.5	9.6	14.4
High (Greater than or equal to 30)	143	84.6	85.6	100.0
Total	167	98.8	100.0	
Missing System	2	1.2		
Total	169	100.0		

Almost 31% of the sampled respondents indicated that they are highly burnout outside of HEI compared to 23% who are lowly burnout and 45.4% who are moderately burnout (See Table 10).

Table 10: Category of Outside HEI Burnout Index

	Frequency	Percent	Valid Percent	Cumulative Percent
Low (less than or equal to 4)	37	21.9	22.7	22.7
Moderate (5 - 7)	74	43.8	45.4	68.1
High (More than or equal to 8)	52	30.8	31.9	100.0
Total	163	96.4	100.0	
Missing System	6	3.6		
Total	169	100.0		

Table 11 presents a detailed analysis of subscale and general burnout outside of HEI. Although high-values for the subscales ‘Emotional Exhaustion’ and ‘Depersonalization’ indicate high-level of burnout among employees at HEI, it is clearly that people still do not feel like they are at the end of their rope or that the job is making them uncaring. In fact, on average, employees are still optimism and ‘full of energy’.

Table 11: Descriptive Statistics of each item on the subscale, Outside-Northern Caribbean Burnout Index

	N	Max	Mean±SD
Emotional Exhaustion			
I feel emotionally drained by my work	159	6.00	2.9±2.1
Working with people at HEI all day long requires a great deal of effort	159	6.00	3.3±2.1
I feel like my work is breaking me down	159	6.00	2.3±2.1
I feel frustrated by my work	159	6.00	2.4±2.2
I feel I work too hard at my job	151	6.00	2.5±2.3
It stresses me too much to work in direct contact with people at HEI	159	6.00	2.1±2.1
I feel like I'm at the end of my rope	160	6.00	1.7±2.2
Depersonalization			
I feel I look after certain students/clients impersonally, as if they are objects	156	6.00	0.6±1.4
I feel tired when I get up in the morning and have to face another day at work	159	6.00	2.7±2.1
I've the impression that my students/clients make me responsible for some of their problems	155	6.00	1.4±1.8
I'm at the end of my patience at the end of my work day	154	6.00	1.6±1.9
I've become more insensitive to people since I've been working	156	6.00	0.9±.7
I'm afraid that this job is making me uncaring	157	6.00	0.8±1.6
Cynicism (or reduced personal accomplishment)			
I accomplish many worthwhile things in this job	157	6.00	4.6±1.8
I feel full of energy	152	6.00	4.0±1.8
I'm easily able to understand what my students/clients feel	155	6.00	4.9±1.5
In my work, I handle emotional problems very calmly	155	6.00	4.8±1.6
Through my work, I feel that I've a positive influence on people	156	6.00	5.1±1.4
I'm easily able to create a relaxed atmosphere with my students/clients	157	6.00	5.1±1.3
I feel refreshed when I've been close to my students/clients at work	154	6.00	4.6±1.7
Outside-HEI Burnout Index			
It stresses me too much to work in direct contact with people	157	6.00	1.3±1.8
I feel tired when I get up in the morning and have to face another day	155	6.00	2.5±2.2
I feel refreshed when I am away from work	153	6.00	3.4±2.2
Valid N (listwise)	118		

Weak statistical correlations ($r < 0.5$) existed between most of the MBI's subscale as well as the stress level outside of HEI, with the only exception being between emotional exhaustion and depersonalization ($r > 0.7$, $P < 0.05$). A positive statistical correlation between personal achievement and emotional exhaustion indicates that employees who are more personal accomplished are more emotionally exhausted, which is the same for depersonalization and

emotional exhaustion. It means that employees who are more depersonalized are more emotional exhausted, suggesting that customer service must be tackled with this in mind. In addition to the aforementioned issue, there is a direct statistical relationship between stress level outside of HEI and its influence on internal burnout at HEI.

Table 12: Pearson’s Product Moment Correlations of MBI subscales and stress levels outside of HEI

		Emotional Exhaustion	Personal Achievement	Depersonalization	Stress level outside of HEI
Emotional Exhaustion	Pearson Correlation	1	.380**	.714**	.424**
	Sig. (2-tailed)		<0.0001	<0.0001	<0.0001
	N	167	165	165	163
Personal Achievement	Pearson Correlation	.380**	1	.472**	.248**
	Sig. (2-tailed)	<0.0001		<0.0001	.001
	N	165	165	164	162
Depersonalization	Pearson Correlation	.714**	.472**	1	.448**
	Sig. (2-tailed)	<0.0001	<0.0001		<0.0001
	N	165	164	165	163
Stress level outside of HEI	Pearson Correlation	.424**	.248**	.448**	1
	Sig. (2-tailed)	<0.0001	.001	<0.0001	
	N	163	162	163	163

** . Correlation is significant at the 0.01 level (2-tailed).

Factor Analysis

The 22 items were subjected to principal components analysis (PCA) using SPSS. Prior to performing PCA, suitability of data for factor analysis was assessed. According to Table 13, overleaf, the descriptive statistics revealed that the mean scores were normally distributed. Hence, the values ranged between 0.6 and 3.3 on a 6 point scale. The item with a value of 2.60 can be concluded not relevant in the instrument, and so all the items in this subscale are relevant has none exceeds 2.3.

Inspection of the correlation matrix in Table 15, overleaf, revealed the presence of many coefficients of .3 and above. The Kaiser-Myer-Okin value was 0.889 (Table 14), exceeding the recommended value of .6 (Kaiser, 1970, 1974) and the Bartlett’s Test of Sphericity (Bartlett, 1954) reached statistical significance (0.000), supporting the factorability of the correlation matrix. A close look at the total Variance Explained, Table 16, revealed that four components eigenvalues exceeding 1, explaining 61.3% of the variance. The Screeplot revealed a clear break after the fourth component, after which the graph flattens. This means the items fall below this break can be discarded or approached with caution in the analysis. Components table shows the loading of

each factor on the component. However, three components were used in this study in keeping with the work of Maslach et al.

Communalities show the amount of variables accounted for in the component captured by each variable. That is, how much of the variance in each of the original variables is explained by the extracted factors. The table of Communalities for this analysis shows communalities for five items that were below 0.50. Higher communalities are desirable. If the communality for a variable is less than 50%, it is a candidate for exclusion from the analysis because the factor solution contains less than half of the variance in the original variable, and the explanatory power of that variable might be better represented by the individual variable.

Results of rotation show the factor loadings that result from promax rotation. The rotated factors are just as good as the initial factors in explaining and reproducing the observed correlation matrix in the Total Variance Explained. Also, the cumulative percentages are the same. The three subscales used by Maslach et al. in their original construction of burnout is coHEI rred with by this work. As such, we can conclude that MBI is good to use to assess burnout among employees at HEI.

Table 13: Descriptive Statistics for MBI subscales

	Mean	Std. Deviation	N
I feel emotionally drained by my work	2.9524	2.03119	126
Working with people at HEI all day long requires a great deal of effort	3.2540	2.12014	126
I feel like my work is breaking me down	2.2302	2.08677	126
I feel frustrated by my work	2.3175	2.27209	126
I feel I work too hard at my job	2.4921	2.21539	126
It stresses me too much to work in direct contact with people at HEI	2.1111	2.07932	126
I feel like I'm at the end of my rope	1.6349	2.13767	126
I feel I look after certain students/clients impersonally, as if they are objects	.4365	1.18993	126
I feel tired when I get up in the morning and have to face another day at work	2.6032	2.07877	126
I've the impression that my students/clients make me responsible for some of their problems	1.3095	1.78646	126
I'm at the end of my patience at the end of my work day	1.5476	1.86164	126
I've become more insensitive to people since I've been working	.9048	1.75922	126
I'm afraid that this job is making me uncaring	.6667	1.39714	126
I accomplish many worthwhile things in this job	1.3730	1.76061	126
I feel full of energy	1.8175	1.68476	126
I'm easily able to understand what my students/clients feel	.9921	1.38850	126
In my work, I handle emotional problems very calmly	1.2222	1.58941	126

Through my work, I feel that I've a positive influence on people	0.7857	1.35415	126
I'm easily able to create a relaxed atmosphere with my students/clients	.8492	1.22028	126
I feel refreshed when I've been close to my students/clients at work	1.3095	1.61227	126

Table 14: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.889
Bartlett's Test of Sphericity	Approx. Chi-Square	1532.530
	df	190
	Sig.	<0.0001

Table 15: Component Correlation Matrix

Component	1	2	3
1	1.000	.367	.465
2	.367	1.000	.367
3	.465	.367	1.000
Extraction Method: Principal Component Analysis. Rotation Method: Promax with Kaiser Normalization.			

Table 16: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	8.075	40.376	40.376	8.075	40.376	40.376	7.239
2	2.712	13.561	53.937	2.712	13.561	53.937	4.911
3	1.475	7.375	61.312	1.475	7.375	61.312	4.460
4	1.009	5.045	66.357				
5	.919	4.597	70.954				
6	.780	3.902	74.856				
7	.713	3.566	78.422				
8	.600	2.998	81.420				
9	.543	2.714	84.134				
10	.514	2.569	86.703				
11	.444	2.222	88.924				
12	.383	1.913	90.838				
13	.363	1.814	92.652				
14	.296	1.481	94.132				
15	.280	1.399	95.532				

16	.253	1.267	96.799				
17	.196	.982	97.781				
18	.177	.885	98.666				
19	.157	.786	99.451				
20	.110	.549	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

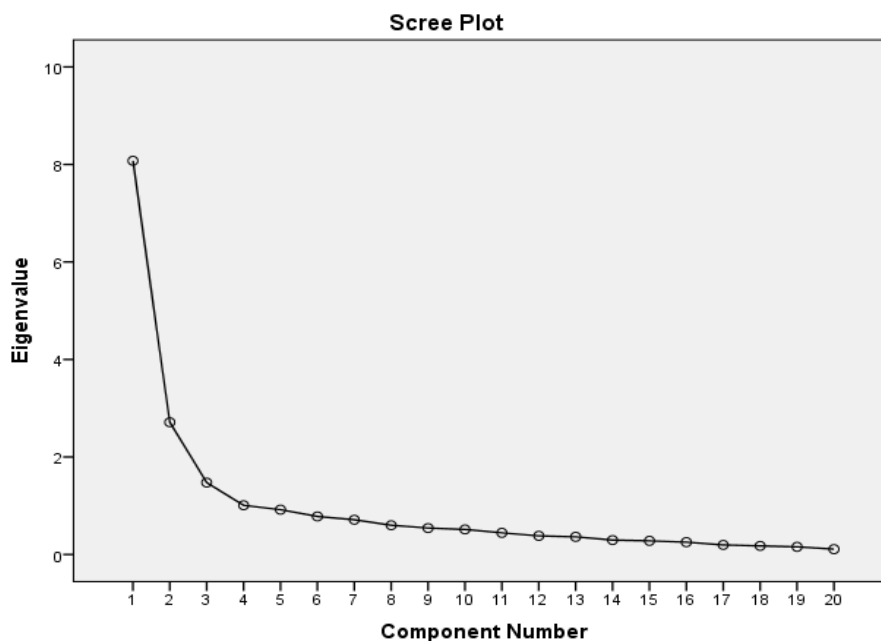


Figure 5: Scree plot

Table 17: Communalities

	Initial	Extraction
I feel emotionally drained by my work	1.000	.706
Working with people at HEI all day long requires a great deal of effort	1.000	.368
I feel like my work is breaking me down	1.000	.837
I feel frustrated by my work	1.000	.834
I feel I work too hard at my job	1.000	.702
It stresses me too much to work in direct contact with people at HEI	1.000	.669
I feel like I'm at the end of my rope	1.000	.747
I feel I look after certain students/clients impersonally, as if they are objects	1.000	.304
I feel tired when I get up in the morning and have to face another day at work	1.000	.672
I've the impression that my students/clients make me responsible for some of their problems	1.000	.311

I'm at the end of my patience at the end of my work day	1.000	.710
I've become more insensitive to people since I've been working	1.000	.795
I'm afraid that this job is making me uncaring	1.000	.745
I accomplish many worthwhile things in this job	1.000	.292
I feel full of energy	1.000	.543
I'm easily able to understand what my students/clients feel	1.000	.590
In my work, I handle emotional problems very calmly	1.000	.457
Through my work, I feel that I've a positive influence on people	1.000	.690
I'm easily able to create a relaxed atmosphere with my students/clients	1.000	.658
I feel refreshed when I've been close to my students/clients at work	1.000	.632
Extraction Method: Principal Component Analysis.		

Table 18: Structure Matrix

	Component		
	1	2	3
Emotional Exhaustion			
SectionA_1	.839	-.297	.363
SectionA_2	.590	-.187	.385
SectionA_3	.911	-.342	.349
SectionA_4	.912	-.354	.398
SectionA_5	.827	-.291	.269
SectionA_6	.805	-.236	.473
SectionA_7	.862	-.348	.367
Depersonalization			
SectionB_1	.365	-.194	.534
SectionB_2	.802	-.364	.518
SectionB_3	.449	-.414	.434
SectionB_4	.732	-.256	.696
SectionB_5	.350	-.348	.888
SectionB_6	.420	-.358	.862
Personal Achievement			
SectionC_1	-.186	.516	-.328
SectionC_2	-.412	.713	-.398
SectionC_3	-.091	.739	-.137
SectionC_4	-.151	.603	-.449
SectionC_5	-.338	.830	-.295
SectionC_6	-.356	.808	-.297
SectionC_7	-.399	.776	-.224

Extraction Method: Principal Component Analysis.
 Rotation Method: Promax with Kaiser Normalization.

Bivariate analyses

Table 19 presents the descriptive statistics for MBI, its subscales and stress outside of HEI Index disaggregated by gender of respondents, with Table 20 presenting the Independent sample t-test values. Based on Table 20, statistical differences exist between the selected subscales and the gender of respondents, such as emotional exhaustion, depersonalization, and stress outside of HEI index. Female-employees are HEI are more emotionally exhausted compared to their male counterparts ($t=-2.343$, $P = 0.020$) as well as for depersonalization ($t=-2.171$, $P = 0.031$) and for stress outside of HEI ($t=2.473$, $P = 0.015$).

Table 19: Group descriptive statistics for MBI, its subscales and stress outside of HEI disaggregated by gender

Characteristics	Gender	N	Mean	Std. Deviation	Std. Error Mean
Emotional Exhaustion	Male	67	14.1194	11.57521	1.41414
	Female	94	18.6277	12.64485	1.30422
Depersonalization	Male	67	6.3731	6.79089	.82964
	Female	93	8.9355	7.75271	.80392
Personal Achievement	Male	67	7.5970	7.25104	.88586
	Female	93	9.2581	7.68384	.79678
Stress outside of HEI Index	Male	66	5.5909	2.73989	.33726
	Female	93	6.7527	3.15421	.32708
TOTAL MBI	Male	67	41.7015	10.41854	1.27283
	Female	94	40.7128	12.99100	1.33992

Table 20: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	P value	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Emotional Exhaustion	Equal variances assumed	1.935	0.166	-2.309	159	0.022	-4.50826	1.95257	-8.36457	-.65194
	Equal variances not assumed			-2.343	149.346	0.020	-4.50826	1.92374	-8.30951	-.70700
Depersonalization	Equal variances assumed	4.765	0.031	-2.171	158	0.031	-2.56235	1.18039	-4.89373	-.23097
	Equal variances not assumed			-2.218	151.996	0.028	-2.56235	1.15524	-4.84476	-.27994
Personal	Equal	1.277	0.260	-	158	0.169	-1.66105	1.20280	-	.71460

Achievement	variances assumed			1.381					4.03670	
	Equal variances not assumed			-1.394	146.976	0.165	-1.66105	1.19147	-4.01567	.69357
O_HEI_BI	Equal variances assumed	3.810	0.053	-2.414	157	0.017	-1.16178	.48118	-2.11220	-.21136
	Equal variances not assumed			-2.473	150.628	0.015	-1.16178	.46981	-2.09005	-.23351
MBI	Equal variances assumed	2.043	0.155	.516	159	0.607	.98873	1.91710	-2.79753	4.77499
	Equal variances not assumed			.535	156.734	0.593	.98873	1.84810	-2.66167	4.63912

Table 21 presents the descriptive statistics for MBI, its subscales and stress outside of HEI Index disaggregated by being a member of the SDA faith, with Table 22 presenting the Independent sample t-test values. Based on Table 22, no statistical differences exist between the selected subscales and being a member of the SDA faith or otherwise, such as emotional exhaustion, depersonalization, and stress outside of HEI index ($P > 0.05$). This means that religious affiliation is no influence levels of burnout among employees at HEI.

Table 21: Group descriptive statistics for MBI, its subscales and stress outside of HEI disaggregated by being a member of the SDA faith

	Member of SDA Faith	N	Mean	Std. Deviation	Std. Error Mean
Emotional Exhaustion	Yes	132	17.5833	12.33009	1.07320
	No	23	12.9130	11.36547	2.36986
Depersonalization	Yes	131	7.8855	7.22990	.63168
	No	23	7.5652	8.46826	1.76575
Personal Achievement	Yes	131	8.9389	7.58415	.66263
	No	23	6.6522	6.73261	1.40385
Stress outside of HEI	Yes	130	6.3923	3.02828	.26560
	No	23	5.8696	3.07932	.64208
TOTAL MBI	Yes	132	41.6591	12.25420	1.06659
	No	23	39.9130	10.25100	2.13748

Table 22: Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig.	Mean	Std.	95% Confidence	

			.			(2- taile d)	Differen ce	Error Differen ce	Interval of the Difference	
									Lower	Upper
Emotional Exhaustion	Equal varianc es assume d	.832	.36 3	1.69 5	153	.092	4.67029	2.75572	- .77389	10.114 47
	Equal varianc es not assume d			1.79 5	31.72 4	.082	4.67029	2.60154	- .63068	9.9712 6
Depersonalizat ion	Equal varianc es assume d	.025	.87 3	.191	152	.849	.32028	1.67795	- 2.9948 3	3.6353 9
	Equal varianc es not assume d			.171	27.91 4	.866	.32028	1.87534	- 3.5217 2	4.1622 8
Personal Achievement	Equal varianc es assume d	1.23 1	.26 9	1.35 5	152	.178	2.28676	1.68811	- 1.0484 4	5.6219 5
	Equal varianc es not assume d			1.47 3	32.62 1	.150	2.28676	1.55237	- .87297	5.4464 8
O_HEI_BI	Equal varianc es assume d	.008	.93 0	.761	151	.448	.52274	.68672	- .83408	1.8795 6
	Equal varianc es not assume d			.752	30.02 3	.458	.52274	.69485	- .89628	1.9417 6
TOTAL_MBI	Equal varianc es assume	1.87 4	.17 3	.645	153	.520	1.74605	2.70843	- 3.6047 0	7.0967 9

	d									
	Equal variances not assumed			.731	33.96 6	.470	1.74605	2.38882	- 3.1087 9	6.6008 8

Table 23 presents the descriptive statistics for MBI, its subscales and stress outside of HEI Index disaggregated by staff categorization, with Tables 24 and 25 presenting the level of significance of the mean values. Based on Table 23, no statistical differences exist between the selected subscales and staff categorization at HEI, such as emotional exhaustion, depersonalization, and stress outside of HEI index ($P > 0.05$). This means that staff categorization does not exemplify the levels of MBI experienced by members of staff at HEI.

Table 23: Descriptive for MBI, its subscales and stress outside of HEI disaggregated by staff categorization

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Emotional Exhaustion	Administrator (include Vice President and Vice Presidents)	4	13.0000	6.21825	3.10913	3.1054	22.8946
	Casual (include security)	6	11.8333	12.41639	5.06897	-1.1969	24.8635
	Faculty	40	15.7250	13.59296	2.14924	11.3778	20.0722
	Sector Manager	16	10.7500	9.77412	2.44353	5.5417	15.9583
	Other Staff	90	19.1444	12.13182	1.27881	16.6035	21.6854
	Total	156	16.9679	12.43119	.99529	15.0019	18.9340
	Model	Fixed Effects			12.24067	.98004	15.0316
	Random Effects				2.05491	11.2626	22.6733
Depersonalization	Administrator (include Vice President and Vice Presidents)	4	9.7500	11.52895	5.76447	-8.5951	28.0951
	Casual (include	6	3.3333	4.45720	1.8196	-1.3442	8.0109

	security)				5		
	Faculty	40	7.0750	8.10947	1.2822 2	4.4815	9.6685
	Sector Manager	16	6.0625	5.80194	1.4504 8	2.9709	9.1541
	Other Staff	89	8.7640	7.31751	.77565	7.2226	10.3055
	Total	15 5	7.8645	7.45818	.59906	6.6811	9.0479
	Mode 1	Fixed Effects		7.42960	.59676	6.6854	9.0437
		Rando m Effects			.80547	5.6282	10.1009
Inefficacy	Administrator (include Vice President and Vice Presidents)	4	6.7500	.95743	.47871	5.2265	8.2735
	Casual (include security)	6	4.5000	5.08920	2.0776 6	-.8408	9.8408
	Faculty	40	8.2250	7.82661	1.2375 0	5.7219	10.7281
	Sector Manager	16	7.2500	6.60808	1.6520 2	3.7288	10.7712
	Other Staff	89	9.3820	7.87907	.83518	7.7223	11.0418
	Total	15 5	8.6065	7.57773	.60866	7.4041	9.8088
	Mode 1	Fixed Effects			7.58913	.60957	7.4020
Rando m Effects					.60957 ^a	6.9140 ^a	10.2989 ^a
O_HEI_BI	Administrator (include Vice President and Vice Presidents)	4	6.5000	1.29099	.64550	4.4457	8.5543
	Casual (include security)	6	6.0000	4.14729	1.6931 2	1.6477	10.3523
	Faculty	40	6.0250	3.04233	.48103	5.0520	6.9980
	Sector Manager	16	5.0000	1.63299	.40825	4.1298	5.8702
	Other Staff	88	6.5568	3.23365	.34471	5.8717	7.2420
	Total	15 4	6.2338	3.06529	.24701	5.7458	6.7218
	Mode	Fixed			3.06714	.24716	5.7454

	1	Effects						
		Rando m Effects				.24716 ^a	5.5475 ^a	6.9200 ^a
TOTAL_MBI	Administrator (include Vice President and Vice Presidents)		4	38.500 0	8.69866	4.3493 3	24.6585	52.3415
	Casual (include security)		6	46.000 0	5.96657	2.4358 4	39.7385	52.2615
	Faculty		40	41.675 0	10.20655	1.6138 0	38.4108	44.9392
	Sector Manager		16	37.937 5	13.43363	3.3584 1	30.7792	45.0958
	Other Staff		90	41.466 7	13.04202	1.3747 5	38.7351	44.1983
	Total		15 6	41.256 4	12.09258	.96818	39.3439	43.1689
	Model	Fixed Effects				12.15603	.97326	39.3334
Rando m Effects					.97326 ^a	38.5542 ^a	43.9586 ^a	

Table 24: Analysis of Variance for MBI, its subscales and stress outside of HEI (ANOVA)

		Sum of Squares	df	Mean Square	F	P value
Emotional Exhaustion	Between Groups	1327.909	4	331.977	2.216	0.070
	Within Groups	22624.931	151	149.834		
	Total	23952.840	155			
Depersonalization	Between Groups	286.314	4	71.579	1.297	0.274
	Within Groups	8279.841	150	55.199		
	Total	8566.155	154			
Personal Achievement	Between Groups	203.757	4	50.939	.884	0.475
	Within Groups	8639.236	150	57.595		
	Total	8842.994	154			
Stress Outside of	Between	35.894	4	8.973	.954	0.435

HEI	Groups					
	Within Groups	1401.691	149	9.407		
	Total	1437.584	153			
TOTAL_MBI	Between Groups	352.631	4	88.158	.597	0.666
	Within Groups	22313.113	151	147.769		
	Total	22665.744	155			

Table 25: Robust Tests of Equality of Means

		Statistic ^a	df1	df2	P value
Emotional Exhaustion	Welch	2.661	4	15.102	0.073
	Brown-Forsythe	2.817	4	37.741	0.039
Depersonalization	Welch	2.007	4	14.386	0.147
	Brown-Forsythe	1.144	4	10.827	0.387
Personal Achievement	Welch	2.283	4	24.717	0.089
	Brown-Forsythe	1.489	4	65.152	0.216
Stress Outside of HEI	Welch	2.042	4	15.630	0.138
	Brown-Forsythe	1.126	4	17.720	0.376
TOTAL MBI	Welch	1.090	4	15.184	0.396
	Brown-Forsythe	.841	4	43.886	0.507

a. Asymptotically F distributed.

Table 26 presents the Pearson’s Product Moment correlations for MBI, its subscales and stress levels outside of HEI as well as selected demographic characteristics (i.e., age and length of service). The findings revealed no significant statistical correlation between 1) length of service at HEI and all the subscales, and MBI, 2) age and emotional exhaustion, 3) age of respondents and stress levels outside of HEI, and 4) overall MBI ($P > 0.05$). On the other hand, significant statistical relationships existed between 1) age of respondents and depersonalization ($r = -0.248$, $P = 0.005$), 2) age and personal achievement ($r = -0.203$, $P = 0.021$). Such findings denote that irrespective of the time employed by each worker, their level of burnout is the same, which is not the case for age and depersonalization, and age and personal achievement. As it relates to negative correlation for age and depersonalization, and age and personal achievement, this means that younger-staffers at HEI are more depersonalized (high burnout) and less personally achieved in life.

Table 26: Pearson’s Product Moment Correlations of MBI, its subscales and stress outside of HEI by selected demographic characteristics

	Emotional Exhaustion	Depersonalization	Inefficiency	Stress Outside of	TOTAL_MBI	Age	Length of service

					HEI			
Emotional Exhaustion	Pearson Correlation	1	.714**	.380**	.424**	.371**	-.142	.123
	Sig. (2-tailed)		.000	.000	.000	.000	.109	.135
	N	167	165	165	163	167	129	148
Depersonalization	Pearson Correlation	.714**	1	.472**	.448**	-.219**	-.248**	.047
	Sig. (2-tailed)	.000		.000	.000	.005	.005	.570
	N	165	165	164	163	165	129	147
Inefficacy	Pearson Correlation	.380**	.472**	1	.248**	-.486**	-.203*	.041
	Sig. (2-tailed)	.000	.000		.001	.000	.021	.622
	N	165	164	165	162	165	129	147
Stress Outside of HEI	Pearson Correlation	.424**	.448**	.248**	1	-.026	-.064	.136
	Sig. (2-tailed)	.000	.000	.001		.741	.475	.102
	N	163	163	162	163	163	128	146
TOTAL MBI	Pearson Correlation	.371**	-.219**	-.486**	-.026	1	.134	.081
	Sig. (2-tailed)	.000	.005	.000	.741		.129	.330
	N	167	165	165	163	167	129	148
Age	Pearson Correlation	-.142	-.248**	-.203*	-.064	.134	1	.472*
	Sig. (2-tailed)	.109	.005	.021	.475	.129		.000
	N	129	129	129	128	129	129	122
Length of service at HEI	Pearson Correlation	.123	.047	.041	.136	.081	.472**	1
	Sig. (2-tailed)	.135	.570	.622	.102	.330	.000	
	N	148	147	147	146	148	122	148

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Multiple regression analysis - Depersonalization

Based on the Table 27, a linear model can be used to determine the dependent variable (i.e., depersonalization) on independent variables (i.e., age and gender of respondents)-F [2, 126] = 5.286, P = 0.008, with the assumptions of linear and normality capture in Figures 6-8, and that the statistical correlation between the independent variables and the dependent variable are better than expected by chance. This linear model is further explained in Table 28, below:

Table 27: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	517.029	2	258.514	5.266	.006 ^b
	Residual	6185.963	126	49.095		
	Total	6702.992	128			
a. Dependent Variable: Depersonalization						
b. Predictors: (Constant), Male, Ques2						

Age can be used to linearly predict depersonalization (P = 0.007). However, gender is not a linear factor of depersonalization (P > 0.05). Furthermore, the relationship between two aforementioned variables is an inverse one, indicating that younger employees are more likely to experience greater burnout than their older counterparts. In fact, age accounts for 6.2% of the variability in depersonalization. Based on Table 28, the predictive regression equation can be written for the model (i.e., Model 1) as follows:

$$\text{Model 1: Depersonalization (i.e., Y)} = 14.20 - 0.135(\text{Age}) + e_i$$

where 0.135 is the scale at which depersonalization increases for every unit of change in the age variable and 14.2 meaning that depersonalization starts at this level with all other variables being held constant or none existence.

Table 28: OLS of depersonalization on age and gender of respondents

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		
	B	Std. Error	Beta			Lower	Upper	VIF
Constant	14.200	2.198		6.462	0.000	9.851	18.549	
Age	-0.135	.049	-.238	-2.767	0.007	-.231	-.038	1.006
Male	-1.845	1.254	-.126	-1.471	0.144	-4.328	.637	1.006

Table 29: Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.278 ^a	.077	.062	7.00678	.077	5.266	2	126	.006	1.768
a. Predictors: (Constant), Male, Ques2										
b. Dependent Variable: Depersonalization										

Testing assumptions of Linear Model

Assumption 1 (i.e., Normality)

The issue of normality was checked for each variable, which was done by way of skewness test.

Descriptive analyses were done for each variable and these are reflected in Annex 2.

In fact, the frequency distribution of depersonalization is reflected in Figure 6, below.

Normality of the independent variable

Figure 6 shows that age (i.e., independent variable) is normally distribution in the linear model.

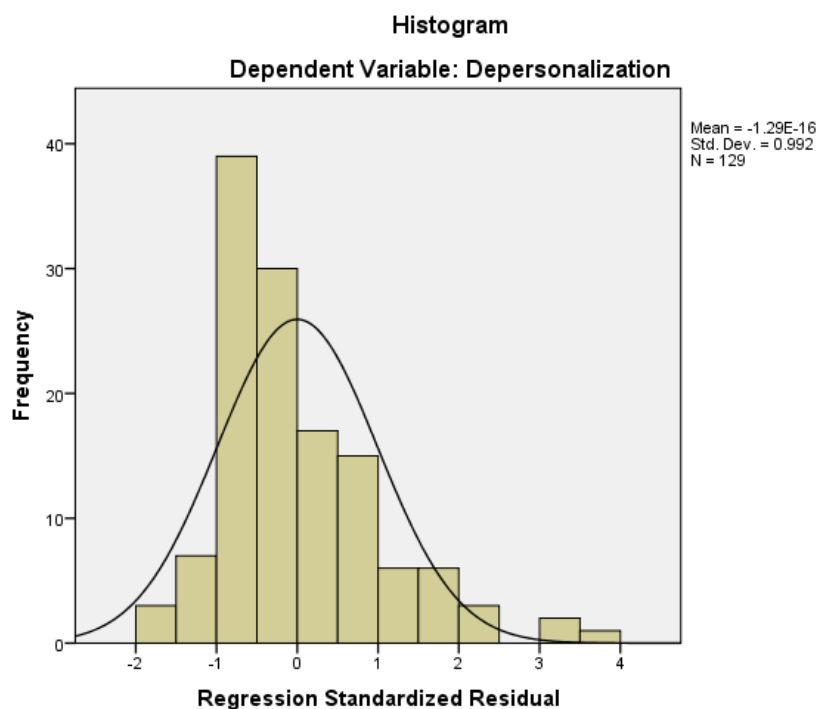


Figure 6: Frequency distribution

Assumption 2: Linear of dependent variable

Figure 8 shows that the dependent variable is a linear variable,

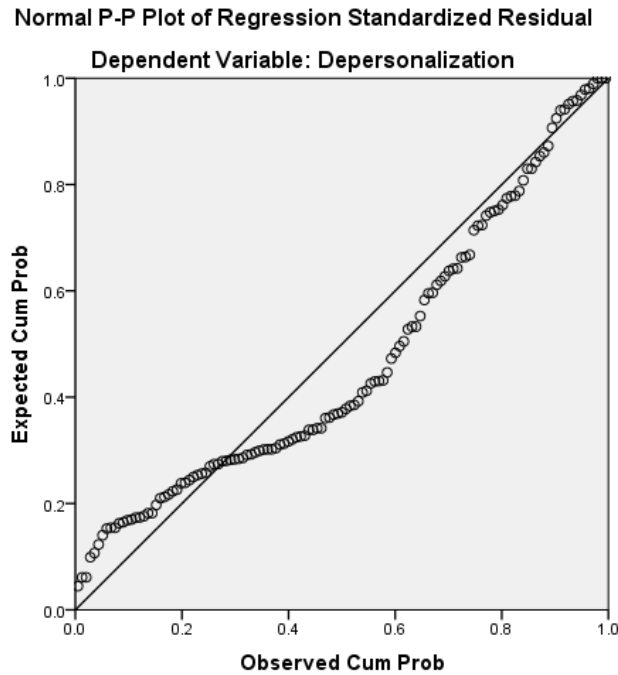


Figure 7: Linear of the dependent variable

It can be deduced from Figure 8 that normality and linear were adhered to and that a linear model can be built for this work.

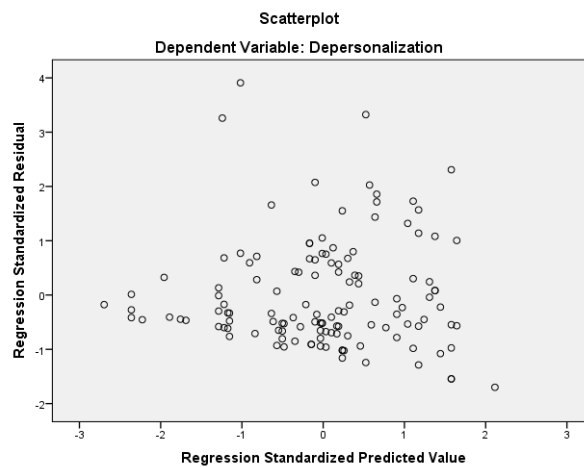


Figure 8: Multiple regression analysis - Personal Achievements

Table 33 provides information that age and gender fit a linear model for personal achievement at HEI ($F[2, 126] = 3.160, P = 0.046$).

Table 30: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	337.590	2	168.795	3.160	.046 ^b
	Residual	6730.286	126	53.415		
	Total	7067.876	128			
a. Dependent Variable: Personal Achievement						
b. Predictors: (Constant), Male, Ques2						

Table 31 presents coefficients for the estimates of age as predictive variable in the model for personal achievement. Although the age and gender variables fit a linear model for employee’s personal achievement HEI ($F[2, 126] = 3.160, P = 0.046$), individually, gender is not statistically contributing to the model and therefore, there is no need to include it into the model, so the model should read:

$$\text{Personal achievement (P)} = f(\text{Age}) + e_i$$

Final equation should read:

$$P = 13.775 - 0.115(\text{Age})$$

It can be deduced from the negative coefficient of age (-0.115) that younger employees are HEI are more personally achieved than their older counterparts. This means that the older employees at HEI are more burnout than their younger counterparts.

Table 31: OLS regression for personal achievement on age and gender

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Zero-order	VIF
	B	Std. Error	Beta			Lower	Upper		
Constant	13.775	2.292		6.009	.000	9.239	18.311		
Age	-.115	.051	-.196	-2.253	.026	-.215	-.014	-.203	1.006
Male	-1.221	1.308	-.081	-.933	.353	-3.810	1.369	-.097	1.006

Using the ‘Enter Method’ in multiple regression, it can be concluded that the age account for 3.3% of the variability in Personal achievement of employees at HEI; and that the Durbin-Watson indicates no multicollinearity (Table 32).

Table 32: Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.219 ^a	.048	.033	7.30855	.048	3.160	2	126	.046	1.823
a. Predictors: (Constant), Male, Ques2										
b. Dependent Variable: Inefficacy										

Normality of the independent variable

Figure 9 shows that age (i.e., independent variable) is normally distribution in a linear model of personal achievement.

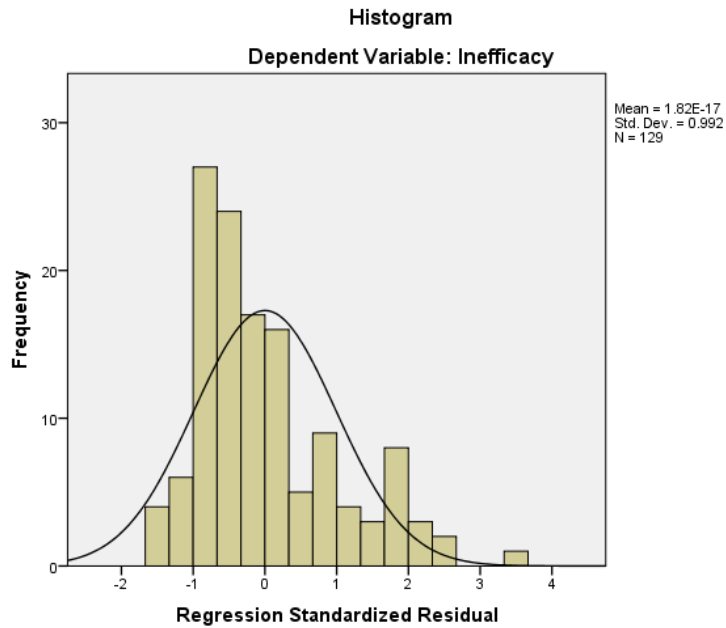


Figure 9: Normality of the independent variable

Assumption 2: Linear of dependent variable

Figure 10 shows that the dependent variable is a linear variable,

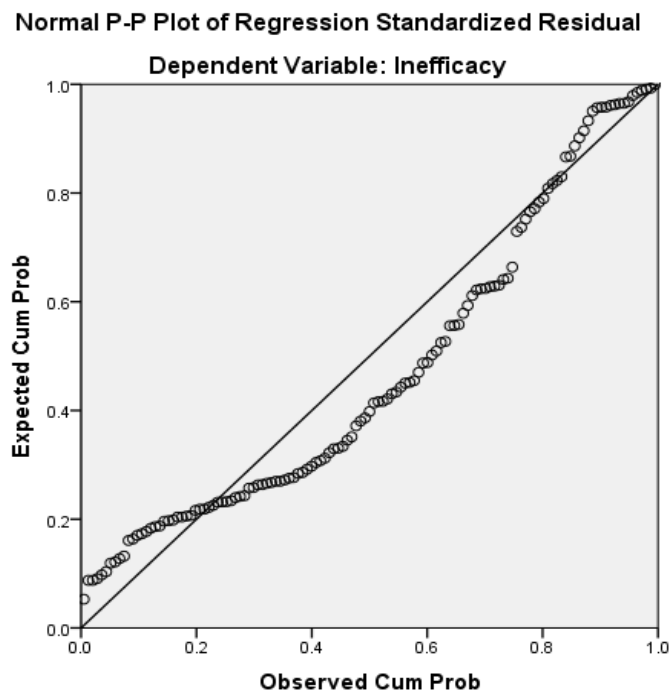


Figure 10: Linear of the dependent variable

It can be deduced from Figure 11 that normality and linear were adhered to and that a linear model can be built for this work.

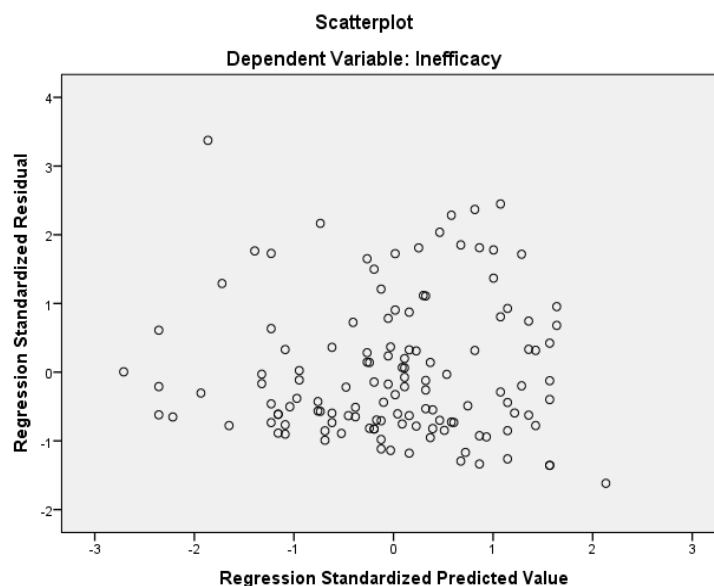


Figure 11:

Table 34: Multivariate Analysis of Variance

Dependent Variable	Parameter	B	Std. Error	t	Sig.	95% Confidence Interval		Partial Eta Squared
						Lower	Upper	
Depersonalization	Intercept	8.584	5.129	1.674	.097	-1.581	18.749	.025
	Gender	2.079	1.364	1.524	.130	-.625	4.782	.021
	Age	-.179	.060	-2.988	.003	-.298	-.060	.076
	Staff category	-.027	.625	-.043	.966	-1.266	1.212	.000
	Being SDA	1.603	1.874	.856	.394	-2.110	5.317	.007
	Length of service	.149	.088	1.684	.095	-.026	.324	.025
Personal Achievement	Intercept	13.989	5.462	2.561	.012	3.163	24.814	.057
	Gender	.426	1.453	.293	.770	-2.453	3.305	.001
	Age	-.169	.064	-2.649	.009	-.295	-.043	.060
	Staff category	.164	.666	.246	.806	-1.156	1.484	.001
	Being SDA	-1.171	1.995	-.587	.559	-5.126	2.784	.003
	Length of service	.152	.094	1.616	.109	-.034	.339	.023

Table 35 presents multivariate tests to establish statistically significant difference or otherwise in the means scores for personal achievement and depersonalizations. Given that the Wilks' Lambda and the other tests are not significant ($P > 0.05$) for gender, staff category, length of service and being a member of the SDA faith, it follows that personal achievement and

depersonalization do not differ with respect to gender, staff category, length of service and being a member of the SDA faith. It should be noted here that only age had a significant value ($P = 0.005$) indicating that employees burnout as it relates to depersonalization and personal achievement differs based on their ages.

Table 35: Multivariate Tests^a

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^c
Intercept	Pillai's Trace	.061	3.501 ^b	2.000	108.000	.034	.061	7.002	.643
	Wilks' Lambda	.939	3.501 ^b	2.000	108.000	.034	.061	7.002	.643
	Hotelling's Trace	.065	3.501 ^b	2.000	108.000	.034	.061	7.002	.643
	Roy's Largest Root	.065	3.501 ^b	2.000	108.000	.034	.061	7.002	.643
Gender	Pillai's Trace	.022	1.208 ^b	2.000	108.000	.303	.022	2.417	.259
	Wilks' Lambda	.978	1.208 ^b	2.000	108.000	.303	.022	2.417	.259
	Hotelling's Trace	.022	1.208 ^b	2.000	108.000	.303	.022	2.417	.259
	Roy's Largest Root	.022	1.208 ^b	2.000	108.000	.303	.022	2.417	.259
Age	Pillai's Trace	.095	5.676 ^b	2.000	108.000	.005	.095	11.351	.854
	Wilks' Lambda	.905	5.676 ^b	2.000	108.000	.005	.095	11.351	.854
	Hotelling's Trace	.105	5.676 ^b	2.000	108.000	.005	.095	11.351	.854
	Roy's Largest Root	.105	5.676 ^b	2.000	108.000	.005	.095	11.351	.854
Staff category	Pillai's Trace	.001	.042 ^b	2.000	108.000	.959	.001	.083	.056
	Wilks' Lambda	.999	.042 ^b	2.000	108.000	.959	.001	.083	.056
	Hotelling's Trace	.001	.042 ^b	2.000	108.000	.959	.001	.083	.056
	Roy's	.001	.042 ^b	2.000	108.000	.959	.001	.083	.056

	Largest Root				0	9			
Being SDA	Pillai's Trace	.016	.869 ^b	2.000	108.000	.422	.016	1.738	.196
	Wilks' Lambda	.984	.869 ^b	2.000	108.000	.422	.016	1.738	.196
	Hotelling's Trace	.016	.869 ^b	2.000	108.000	.422	.016	1.738	.196
	Roy's Largest Root	.016	.869 ^b	2.000	108.000	.422	.016	1.738	.196
Length of service	Pillai's Trace	.035	1.931 ^b	2.000	108.000	.150	.035	3.862	.393
	Wilks' Lambda	.965	1.931 ^b	2.000	108.000	.150	.035	3.862	.393
	Hotelling's Trace	.036	1.931 ^b	2.000	108.000	.150	.035	3.862	.393
	Roy's Largest Root	.036	1.931 ^b	2.000	108.000	.150	.035	3.862	.393
a. Design: Intercept + Ques1 + Ques2 + Ques3 + Ques5 + Quest4									
b. Exact statistic									
c. Computed using alpha = .05									

Based on the corrected model (F statistic=2.586 for Depersonalization and 1.923 for personal achievement, with a P value of 0.030 and 0.096, respectively) indicating that none of the variables (i.e., age, gender, etc.) statistical differ as it relates to personal achievement and depersonalization as it relates to being a member of the SDA faith (**Table 36**).

Table 36: Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter
Corrected Model	Depersonalization	616.765 ^a	5	123.353	2.586	.030	.106	12.930
	Inefficacy	520.261 ^b	5	104.052	1.923	.096	.081	9.616
Intercept	Depersonalization	133.634	1	133.634	2.802	.097	.025	2.802
	Inefficacy	354.867	1	354.867	6.559	.012	.057	6.559
Gender	Depersonalization	110.773	1	110.773	2.322	.130	.021	2.322
	Inefficacy	4.652	1	4.652	.086	.770	.001	.086
Staff category Being SDA	Depersonalization	425.806	1	425.806	8.927	.003	.076	8.927
	Inefficacy	379.566	1	379.566	7.016	.009	.060	7.016
Length of service	Depersonalization	.089	1	.089	.002	.966	.000	.002
	Inefficacy	3.270	1	3.270	.060	.806	.001	.060

Gender								
Age Staff category	Depersonalization	34.922	1	34.922	.732	.394	.007	.732
	Inefficacy	18.624	1	18.624	.344	.559	.003	.344
Being SDA member	Depersonalization	135.289	1	135.289	2.836	.095	.025	2.836
	Inefficacy	141.233	1	141.233	2.610	.109	.023	2.610
Error	Depersonalization	5199.322	109	47.700				
	Inefficacy	5897.305	109	54.104				
Total	Depersonalization	12025.000	115					
	Inefficacy	14183.000	115					
Corrected Total	Depersonalization	5816.087	114					
	Inefficacy	6417.565	114					

Discussion

In 2007, a group of scholars at the University of the West Indies, Mona, in the department of Government conducted a national probability survey of 1,338 Jamaica to ascertain socio-political issues experienced by people (Powell, Bourne, and Waller, 2007) and found that the health was identified as the 8th leading national problem faced by Jamaicans. This does suggest that with their health. The issue of stress and burnout are two components that speak to ill-health and as such this study provides critical information on the health status of employees at A Higher Educational Institution. The current findings has shown that burnout is high among employees of HEI and that the older employees are more stress than their younger counterparts, suggesting that there are high stressors experienced by older employees and by extension lower health status. Another critical finding of this work is a high-level of reduced personal achievement experienced by staff members. Such finding offers insights into high degree of dissatisfaction with personal well-being of the staff at HEI as employees believe that HEI is contributing little to their personal achievements.

Maslach Burnout Inventory (MBI) has provided insights into the high degree of dissatisfaction among members of staff at HEI, and offers explain for low productivity, high turnover, and poor customer service. The high level of burnout among members of staff of HEI is equally comparable to highly stressful work environment (Jennings, 2008; Lahana, Papadopoulou, Roumeliotou, Tsounis, Sarafis, and Niakas, 2017). Dr. Jennings, a trained nurse, opined that:

In 1974, Freudenberger (1974) coined the term “burnout” to describe workers’ reactions to the chronic stress common in occupations involving numerous direct interactions with people. Burnout is typically conceptualized as a syndrome characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach and Jackson, 1982). Work life, however, is not independent from family life; these domains may even be in conflict (Near, Rice, and Hunt, 1980; Pearlin, 1983). Stress may result from the combined responsibilities of work, marriage, and children (Haw, 1982; Muller, 1986; Woods, 1985). The effects of both work and nonwork stress among nurses have been studied infrequently (Jennings, 1990). And yet, nonwork stress may be particularly salient to nursing, a predominantly female profession.

Women continue to juggle multiple roles, including those roles related to the home and family, for which the women may have sole or major responsibility (Jennings, 2008, p. 2-137)

Jennings squarely placed the issue of burnout on the table, particularly among women, and based on the premise of their multi-roles in society to include work and home, which explains the high burnout among female nursing health-care professionals. This explanation of the high burnout as a result of gender role is not the case at HEI. In fact, the burnout level at HEI is high irrespective of one's gender and what is substantially contributing to this health reality is the personal underachievement while working at the institution. The personal underachievement of employees is more echoed by older workers, which is negatively contributing to health conditions experienced by the older workers.

The high-level of burnout among employees of HEI can be compared to study of nurses in Greece. In a cross-sectional study of some 180 nurses in Greece by Lahana, et al. (2017), using Maslach Inventory scale, bears some similarities to the current work. The comparison of the index for both studies (i.e., the current and Lahana et al.'s work are presented in Table 37, overleaf:

Table 37: Maslach Burnout Inventory for current and Lahana et al.'s work

	Current		Lahana et al.	
	N	Mean	N	Mean
Emotional Exhaustion	164	16.7	180	31.36
Depersonalization	164	7.8	180	11.27
Accomplishment	164	8.6	180	44.02

In a high stress job like nursing (see Table 38, above), employees at HEI is exhibiting some similarities and difference. In Lahana et al.'s study, there was a high level of emotional exhaustion and this is not the case for employees at HEI, but there is close similarity between depersonalization. The low value for depersonalization is indicating high-levels of burnout with both staffers at HEI and that in Lahana et al.'s study. The irony in this is HEI is not a high stress environment and the level of burnout should not be high comparable with one in a high stress environment. Of great importance in this study is the vast disparity between personal accomplishment at HEI and nurses in Greece. The high degree of personal accomplishment among nurses in Greece must to lowering the stress level in the high stress environment; but HEI is a lowly stress environment with a lowly personal accomplished staff complement. The low level of personal accomplishment is contributing to the burnout of employees at HEI, which is an issue of importance that needs urgent redress.

The issue of stress resulting from workload is well documented in the literature (Selye, 1956; Lazarus & Folkman, 1984; French & Caplan, 1972), and the current work offers an explanation outside of workload, psychological frustrations. In fact, scholars have written on the stressors associated with emotional work (Zapf, Vogt, Seifert, Mertini, & Isic, 1999), which offer some insights into the psychological challenges of employees at HEI. The reality is the low level of personal achievement while working at HEI is an emotional workload that operating the same way as physical workload. The matter of internalizing low personal achievement of staffers at

HEI is translating into negative stressors as employees feel they have sacrificed much for little while being employed to HEI. It is this emotional deficiency created by the low personal achievement that staffers low morale, high job turnover, and poor service to customer. Emitting from the findings is the fact that personal dissatisfaction is translating to the customers and treatment of customers. The poor customer service environment that has been created at HEI is a domino effect of internal challenges of employees, their mental dissatisfaction with how they are treated by the institution and a feeling of rejection by system. There should be no surprise at HEI that job performance is low as well as customer service because there is high-level of job dissatisfaction.

Undoubtedly, emotional dissatisfaction with work produces resentment and an unwillingness to harmoniously work with the system to attain stated goals and/or objectives. From the current findings, it can be deduced that the system at HEI is softly killing the vision, the spirit, and resolve of people in order to transform the institution to a high quality one. Currently, HEI is a stressor to its employees and must begin to examine its contribution to the low output, poor customer service and high turnover of staffers. Stress is clearly an antecedent to people unwillingness to offering their best and transform an institution from mediocrity to greatness.

An area that must become of interest to HEI is ill-health of its employees. Over the past 5 years, there have been reports of mysterious deaths of employees and stress could be a contributor to this situation. Selye (1956) proposed that there is a correlation between physiology and illnesses, and this can offer an explanation for stress and illness, and stress and mortality among employees at HEI. Lazarus and Folkman's work (1984) supports what is occurring at HEI as it relates to mysterious deaths of seemingly healthy employees. They indicated that "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" (p. 19). Presently, employees at HEI have to work without critical resources in a high job demand milieu and these are recipes for current high burnout rate among staffers (see, Akbari, Akbari, Shakerian, and Mahaki, 2017). Akbari et al. (2017) stated it this way "Job stress can impose significant costs to the workplaces and organizations due to some issues such as absenteeism, less productivity, and medical costs. Job overload and lack of decision latitude can lead to job stress" (p. 15). We will go further to opine that HEI is a toxic system to the employees' well-being because it has failed to provide job resources, motivation (see Figures 12 and 13), and one that must be overall in order to frame a healthy, highly motivated and productive workforce. Using Figure 13, if job demands are high and resources are low, employees are more likely to experience greater levels of stress, and will account for high absenteeism, high employee turnover and unhealthy workers as a result.

- **Job demands:** physical, psychological, social, or organizational aspects of the job, that require sustained physical and/or psychological effort or skills. Therefore, they are associated with certain physiological and/or psychological costs. Examples are, work pressure, emotional demands.
- **Job resources:** physical, psychological, social, or organizational aspects of the job that are either or: functional in achieving work goals; reduce job demands and the associated

physiological and psychological cost; stimulate personal growth, learning, and development. Examples are, career opportunities, supervisor coaching, role-clarity, and autonomy.

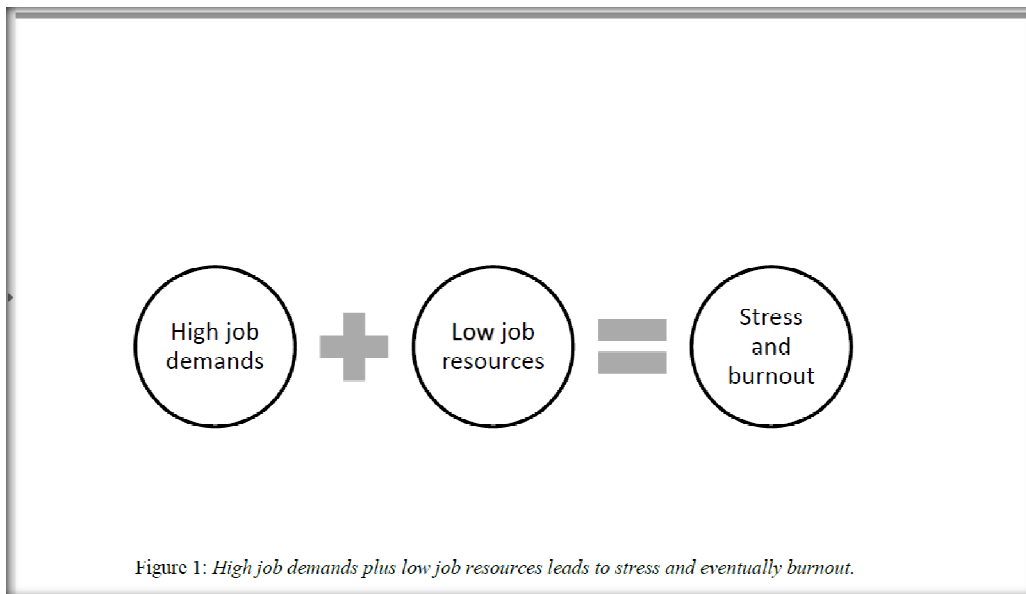


Figure 12:

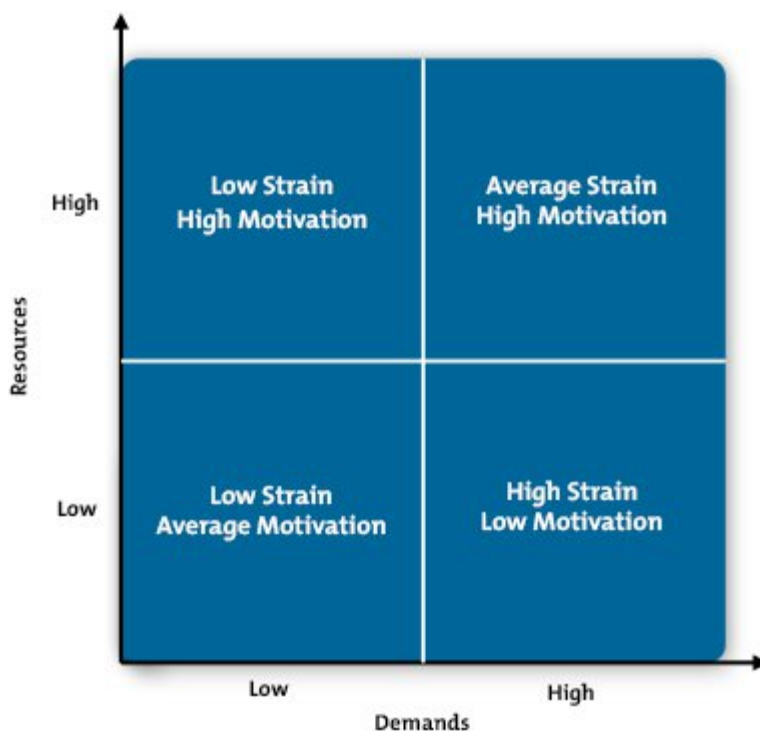


Figure 13: The Job Demands-Resources Model

Source: Diagram reproduced from Bakker and Demerouti (2006), © Emerald Publishing Group.

Conclusion

The higher educational institution needs to address the warning signs related to workers' stress levels (i.e., low employee wellbeing and work-life balance) with urgency. Stresses related to

toxic workplace climate and work demands, resource insufficiency and management related deficiencies needs to be significantly reduced and where possible eliminated.

Achieving the university's mission will be jeopardized if immediate attention is not given to reinforce and ensure positive organizational behavior that reflects the core values of the institution. Workforce burn out will eventually erode employee engagement in critical functions needed to realize the institution's goals as summarized in the Strategic Plan 2017-2022. Employees' mental health and general well-being will be negatively impacted therefore impacting absenteeism, productivity, job satisfaction, customer service and a willingness to provide "quality, service.

There are many broad-based as well as specific "low hanging fruit" recommendations that can in the short run help the higher educational institution to address the challenge of burnout being faced by the workforce. Long-term recommendations must be had from the workforce and must be implemented swiftly to indicate the institution's commitment to dealing with the challenge and the value it places on the contribution of its human resource asset.

1. Management must ensure that it sets the right one in inter-personal relationships with all stakeholders, productivity outcome and commitment to the mission.
2. Immediate outlets for managing stress on the campus should be provided, for example, providing an environment that is seen as fair, transparent and just.
3. The beautification and aesthetics of the campus must be treated as priority as nature provides unparalleled healing services.
4. On occasions, the provision of stress management services, for e.g. massage therapy can be explored. Creating more spaces focused on stress reduction activities can be explored. The space behind the Seat of the Scornful can become more functional with life-sized gaming activities. Further research to explore the specific strategies for managing stress must be done. Recommendations will then be made to address areas of manifestations, prevalence, and outcomes of stress and burnout.
5. The Wellness Centre and academic areas that teach on health and wellness in its various dimensions should be integrally involved in mainstreaming emotional, social, physical health and better inter-personal relations on the campus.
6. The higher educational institution needs to focus on a plan to assist workers to achieve materially through housing and vehicle acquisition. Especially workers who would have faithfully served and given of their youth and talent to the organization and are still unable to realize these basic needs being met.
7. The toxic work climate needs to be addressed. Honest, strategic conversations on how to change the culture of hostility, nepotism and lack of productivity
8. A transparent system of recognizing all category of workers through various incentives should be implemented.
9. The Human Resource Department should ensure that the best fit for positions is employed at all times. The process of placing employees (especially staff) needs to be reviewed.
10. A hotline for anonymous complaints by stakeholders that will be investigated professionally should be set up.

11. The university needs to revisit the workload of faculty and staff to ensure that the demands are fair. Compensation (not necessarily monetary) should be considered and uniformly implemented for over-time work.
12. The resource concerns needs to be addressed to ensure that the physical environment is conducive to a positive work environment. A 10 -20 year plan to address the concerns identified within the physical plan should be made available to the workforce.
13. Space to enjoy good meals should be re-considered. Until the culture is repaired, faculty and students should not be forced to fight to use the same space at the same time to get meals.

Stress related to staff issues (including poor staff management, resource inadequacy and security risks) is most important in determining burnout and job satisfaction among nurses. Burnout clearly impacts on the mental health and wellbeing of nurses, which is most likely compromising productivity, performance and the quality of patient care. Further research exploring specific strategies for managing stress and improving job satisfaction may reduce the impact of burnout on general health of nurses, while also minimizing absenteeism and turnover. This could be achieved through evidence based policies aimed at creating better work environments where nurses feel more secure and have adequate resources to successfully perform their jobs, hence improving their health outcomes as well as that of their patients.

Burnout plays a key role in a health impairment process that is mainly driven by high job demands, whereas engagement plays a key-role in a motivational process that is driven by job resources (Bakker and Demerouti, 2008; Schaufeli et al., in press). As for the practice of burnout, it remains to be seen if corporations and public sector organizations are willing to provide the necessary resources to maintain extraordinary efforts from their employees.

References

- Azeem, S.M., Nazir, N.A., Zaidi, Z.B.A., & Akhtar, N (2014). Role of Stress and Burnout among Nurses in the Hospitals. *International Journal of Academic Research in Business and Social Sciences*, 4(3): 420- 428.
- Akbari, J., Akbari, R., Shakerian, M., &Mahaki, B. (2017). Job demand-control and job stress at work: A cross-sectional study among prison staff. *Journal of Education and Health Promotion*, 6, 15.
- Babbie, E. (2007). *The practice of social research* (10th Ed.). Wadsworth. London: Routledge.
- Bakker, A.B. &Demerouti, E. (2007). The Job Demands-Resources model: state of the art. *Journal of Managerial Psychology*, 22(3), 309-328,
- Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). Burnout and work engagement: The JD-R approach. *Annual Review of Organizational Psychology and Organizational Behavior*.
- Bakker, A. B., Le Blanc, P. M., &Schaufeli, W. B. (2005). Burnout contagion among nurses who work at intensive care units. *Journal of Advanced Nursing*, 51, 276-287.
- Berg, B. (2001). *Qualitative Research Methods for the social sciences*.4th ed. Allyn and Beacon. USA.

- Black, C. (1960). *Spanish Town - The Old Capital*. Spanish Town: Parish Council of St. Catherine.
- Blalock, H. M., Jr. (1971). *Causal models in the social sciences*. Chicago: Aldine-Atherton.
- Blalock, H.M., Jr. (1964). *Causal inferences in non-experimental research*. Chapel Hill: University of North Carolina Press.
- Bourne, P.A. & Eldemire-Shearer, D. (2009). Public hospital health care utilization in Jamaica. *Australian Journal of Basic and Applied Sciences* 3(4):3067-3080.
- Bourne, P.A. (2009a). Inflation, public health care and utilization in Jamaica. *Australian Journal of Basic and Applied Sciences* 3(3):3008-3024.
- Bourne, P.A. (2009b). Health inequality in Jamaica, 1988-2007. *Australian Journal of Basic and Applied Sciences* 3(3):3040-3052.
- Bourne, P.A., Eldemire-Shearer, D., Paul, T.J., La Grenade, J., & Charles, C.A.D. (2010). Public and health care utilization in differences between socioeconomic strata in Jamaica. *Patient Related Outcome Measure* 1:81-91.
- Boxill, I., Chambers, C., & Wint, E. (1997). *Introduction to social research with applications to the Caribbean*. Kingston, Jamaica: Canoe Press/University of the West Indies.
- Brown, P. (2003). The health service brain drain: What are the options for change? *Immunization Focus*: 6-8.
- Bryman, A., & Cramer, D. (2005). *Quantitative data analysis with SPSS with 12 and 13: A guide for social scientists*. London: Routledge.
- Buchan, J. & Dovlo, D. (2004). *International recruitment of health workers to the UK: A report for DFID*. Department for International Development, DFID Health Systems Resource Centre, London.
- Buchan, J. and Sochalski, J. (2004). The migration of nurses: Trends and policies. *Bulletin of the World Health Organization* 82 (8): 587-594.
- Buchan, J., Parkin, T. and Sochalski, J. (2003). *International nurse mobility: Trends and policy implications*. Report funded by Royal College of Nursing, World Health Organization and International Council of Nurses. Geneva, WHO.
- Buisseret, D. (1996). *Historic Jamaica from the air*. Kingston: Ian Randle Publishers.
- Carmen, C., & Bench, N.S. (2015). *The Health Workforce in Latin America and the Caribbean An Analysis of Colombia, Costa Rica, Jamaica, Panama, Peru, and Uruguay*. Retrieved from http://www.wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2015/06/17/090224b082f42ac5/1_0/Rendered/PDF/The0health0wor0a00Peru00and0Uruguay.pdf, accessed on May 31, 2016.
- Cook, A.L. (2008). *Job satisfaction and job performance: Is the relationship spurious*. Unpublished Master of Science thesis, Texas A&M University, Texas.

- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage Publications.
- Crotty, M. (2005). *The foundations of social research: Meaning and perspective in the research process*. London: SAGE.
- French, J.R.P., & Caplan, R.D. (1972). *Organizational stress and individual strain*. In: Marrow AJ ed. *The failure of success*. New York: AMACOM; pp 30-66.
- Griffith, R., Hom, P., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: update, moderator tests, and research implications for the millennium. *Journal of Management*, 26: 463-488.
- Haye, W. De La, & Alexis, S. (2012). The impact of a no-user-fee policy on the quality of patient care/service delivery in Jamaica. *West Indian med. j.* [61(2): 168-173.
- Jamaica Gleaner. (2008, May 10). *Cuba to assist with nurse shortage*. Kingston: Jamaica Gleaner. Retrieved from <http://old.jamaica-gleaner.com/gleaner/20080510/lead/lead2.html>, accessed on May 31, 2016.
- Jamaica Gleaner. (2015, September 30). *Fixing health: The brain drain of our health professionals*. Kingston: Jamaica Gleaner. Retrieved from <http://jamaica-gleaner.com/article/health/20150930/fixing-health-brain-drain-our-health-professionals>, accessed on May 31, 2016.
- Jamaica Gleaner. (2016a, May 12). *Police monitoring Spanish Town as tension brews among gangs*. Kingston: Jamaica Gleaner. Retrieved from <http://jamaica-gleaner.com/article/news/20160512/police-monitoring-spanish-town-tension-brews-among-gangs>, accessed on June 2, 2016.
- Jamaica Observer. (2013, February 24). *Police take back Spanish Town, Murders down, gangs in retreat: Residents happy, want police to stay in Spanish Town communities*. Kingston: Jamaica Observer. Retrieved from http://www.jamaicaobserver.com/news/Police-take-back-Spanish-Town_13692423, accessed on June 7, 2016.
- Jamaica Observer. (2014, November 7). *Ferguson: Jamaica's health-care system has space for more science graduates*. Kingston: Jamaica Observer. Retrieved from http://www.jamaicaobserver.com/news/Ferguson--Jamaica-s-health-care-system-has-space-for-more-science-graduates_17885792, accessed on May 31, 2016.
- Jamaica Observer. (2015, July 21). *Public health sector lost 200 nurses last year- NAJ*. Kingston: Jamaica Observer. Retrieved from http://www.jamaicaobserver.com/news/Public-health-sector-lost-200-nurses-last-year---NAJ_19219817. Accessed on May 31, 2016.
- Jamaica Observer. (2016, March 14). *NAJ [Nurses Association of Jamaica] seeks government intervention to curb migration of nurses*. Kingston: Jamaica Observer. Retrieved from <http://www.jamaicaobserver.com/news/NAJ-seeks-gov-t-intervention-to-curb-migration-of-nurses>, accessed on June 7, 2016.
- Jamaicamyway.com. (2009, May 3). *The ghetto in Spanish Town, Jamaica*. Retrieved from <http://www.jamaicamyway.com/spanish-town/spanish-town-ghetto/>, accessed June 2, 2016.

- Jennings, B.M. (ud). Work Stress and Burnout Among Nurses: Role of the Work Environment and Working Conditions. *Patient Safety and Quality: An Evidence-Based Handbook for Nurses*, 2: 2-137 to 2-158.
- Kish, L. (1965). *Survey sampling*. New York: John Wiley & Son.
- Kuhn, T.S. (1996). *The structure of scientific revolutions* 3rd. Chicago: The University of Chicago Press.
- Lazarus RS, & Folkman S. (1884). *Stress appraisal and coping*. New York: Springer.
- Leiter, M. P., Bakker, A. B., & Maslach, C. (2014). *Burnout at work: A psychological perspective*. Hove, Sussex: Psychology Press.
- Lewis, M. (2005). *Ministry of Health Jamaica National Strategic Plan 2006 to 2010*. Kingston: Jamaica Ministry of Health.
- Lofter, A.K. (2012). The “brain drain” of health care workers: causes, solutions and the example of Jamaica. *Can J Public Health*, 103(5):e376-8.
- Love Jamaica. (2015, May 2). *Gang wars intensify in Spanish Town, “Donkey” killed*. Retrieved from <http://3jamaica.com/gang-wars-intensify-in-spanish-town-donkey-killed/>, accessed on June 1, 2016.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397-422.
- Meyer, J.P., & Allen, N.J. (1997). *Commitment in the workplace: theory, research and application*. Thousand Oaks, CA: Sage
- Mobley, W.H., Griffeth, R.W., & Meglino, B.M. (1979). Review and conceptual analysis of employee turnover process. *Psychological Bulletin*, 86:493-522.
- Morgan, H. (2016, June 1). *Murder problem bigger than police*. Kingston: Jamaica Observer. Retrieved from http://www.jamaicaobserver.com/columns/Murder-problem-bigger-than-police-_62556, accessed June 2, 2016.
- Murphy, G.T., MacKenzie, A., Guy-Walker, J., & Walker, C. (2014). Needs-based human resources for health planning in Jamaica: using simulation modeling to inform policy options for pharmacists in the public sector. *Human Resources for Health*, 12:67.
- Paik, Y., Parboteeah, K.P., & Shim, W. 2007. The relationship between perceived compensation, organizational commitment and job satisfaction: the case of Mexican workers in the Korean Maquiladoras. *International Journal of Human Resource Management*, 18:10, 1768-1781.
- Patrick, K., and Lavery, J.F. (2007). Burnout in nursing. *Australian Journal of Advanced Nursing*, 24(3): 43-48.
- Paulin, D. (2002, June 24). *Nurses heading north for better-paying jobs*. Kingston: Jamaica Observer. Retrieved from http://www.jamaicaobserver.com/news/27673_Nurses-heading-north-for-better-paying-jobs, accessed on May 31, 2016.

- Places and Spaces Magazine. (2014, August 27). Spanish Town: From Capital City to Near Chaos. Retrieved from <http://www.placesandspacesmag.com/spanish-town-from-capital-city-to-near-chaos/>, accessed on June 2, 2016.
- Porter, R. (2015, July 21). *Public sector lost 200 nurses last years: NAJ* [Nurses Association of Jamaica]. Kingston: Jamaica Observer. Retrieved from http://www.jamaicaobserver.com/news/Public-health-sector-lost-200-nurses-last-year---NAJ_19219817, accessed on June 7, 2016.
- Powell, L. A., Bourne, P., & Waller, L. (2007). *Probing Jamaica's Political culture, volume 1: Main trends in the July-August 2006 leadership and governance survey*. Kingston: Centre for leadership and governance, Department of Government, the University of the West Indies, Mona.
- Rea, L.M., & Parker, R.A. (2005). *Designing and conducting survey research: A comprehensive guide*, 3rd ed. San Francisco: Jossey-Bass.
- Reynolds-Baker, A. (2013, July 12). *Government steadfast with plans to improve health sector*. Kingston: Jamaica Information Service. Retrieved from <http://jis.gov.jm/government-steadfast-with-plans-to-improve-health-sector/>, accessed on May 31, 2016.
- Robinson, C. (2010, April). *Pastor among 2 killed in Spanish Town gang feud*. Kingston: Jamaica Observer. Retrieved from <http://www.jamaicaobserver.com/latestnews/jamaica-town-gang-feud>, accessed on June 1, 2016.
- Robinson, C. (2010, May 14). *Two dead in Spanish Town gang war*. Kingston: Jamaica Observer. Retrieved from <http://www.jamaicaobserver.com/news/Two-dead-in-Spanish-Town-gang-war>, accessed on June 1, 2016.
- Robinson, C. (2010c, March 31). *Another deadly gang forms in Spanish Town: Police concerned about emergence of 'No Order' group*. Kingston: Jamaica Observer. Retrieved from http://www.jamaicaobserver.com/news/New-gang-in-Spanish-Town_7515544, accessed on June 2, 2016.
- Roe, A. (1957). Early Determinants of Occupational Choice. *Journal of Counseling Psychology*, 4: 212-17.
- Roe, A., & Seigelman, M. (1964). *The Origin of Interests. The SPGS Inquiry Series*. Vol. 1. Washington, DC: American Personnel and Guidance Association.
- Rushton, C.H., Batcheller, J., Schroeder, K., & Donohue, P. (2015). Burnout and resilience among nurses practicing in high-intensity settings. *American Journal of Critical Care*, 24(5): 412- 420.
- Salmon, M.E., Yan, J., Hewitt, H., & Guisinger, V. (2007). Managed Migration: The Caribbean Approach to Addressing Nursing Services Capacity. *Health Research and Educational Trust*, 42:3, 1354- 1372.
- Schlick, M. (1979). *Philosophical Paper*, Vol. 2, ed. H. L. Mulder and BEB. Vande Velde-Schlick pp. 210-24. Dordrecht: Reidel.
- Selye, H. (1956). *The stress of life*. New York: McGraw Hill.

- Sherlock, P& Campbell, H. (1998). *The Story of the Jamaican People*. Kingston: Ian Randle Publishers. www.nlj.org.jm/docs/spanishtown.htm, www.discoverjamaica.com/gleaner/discover/tour_ja/tour3.htm.
- Smith, M. (1998). *Social Science in Question*. London: Open University Press/Sage, chapter 1 and 3, pp. 161-66.
- Statistical Institute of Jamaica (STATIN).(2013). *Population*. Retrieved from http://statinja.gov.jm/Demo_SocialStats/Newpopulation.aspx, accessed on June 1, 2016.
- Steel, R. (2002). Turnover theory at the empirical interface: problem of fit and function. *Academy of Management Journal*, 27(3): 346-360.
- Tinto, V. (1984).Patterns of Educational Sponsorship to Work.*Work and Occupations*, 11(3): 309-30.
- Turner, R., & McLeod, D. (ud). *Thugs battle for gang control: Six killed in internal conflict*. Kingston: Jamaica Star. Retrieved from <http://old.jamaica-star.com/thestar/20110125/news/news1.html>, accessed on June 2, 2016.
- University of Leicester.(2011). *Research methods*. Leicester: University of Leicester.
- Walters, B. (2015, December 26). *Silent night in several Spanish Town communities*. Kingston: Jamaica Observer. Retrieved from http://www.jamaicaobserver.com/entertainment/Silent-night-in-several-Spanish-Town-communities_46946, accessed on June 1, 2016.
- Weber, M. (1949). *The methodology of the social sciences, trans.* Shils, E., and Finch, H., eds. New York: Free Press.
- Weber, M. (1974). *Subjectivity and determinism*. In *positivism and sociology* by Giddens, A., 23- 32. London: Heinemann.
- Weber, M. (1981).Some categories of interpretative sociology. *Sociological Quarterly* 22:151-180.
- World Health Organization (WHO). (2013). *Jamaica: Country Corporate Strategy at a Glance*. Retrieved from http://www.who.int/countryfocus/cooperation_strategy/ccsbrief_jam_en.pdf, accessed on May 31, 2016.
- Zeytinoglu, I.U., Denton, M., Davies, S., &Plenderleith Millen, J. (2009). Casualized employment and turnover intention: Home care workers in Ontario, Canada.*Health Policy* 91: 258-268.
- Zapf, D., Vogt, C., Seifert, C., Mertini, H., &Isic, A. (1999). Emotion work as a source of stress: The concept and development of an instrument. *European Journal of Work and Organizational Psychology*, 8, 371-400.
- Balashov, Yuri, & Rosenberg, Alex. (2002). *Introduction*. In *Philosophy of Science: Contemporary readings by Balashov, Yuri, and Alex Rosenberg*, 3-7. London: Routledge.
- Weirsmann, W. (2000). *Research methods in Education, An Introduction*. Massachusetts. Allyn and Bacon.

- Maria, N. (2012). Burnout among staff nurses: Examining the causes, coping strategies and prevention. Bachelor of Science thesis.
- Poghosyan L, Clarke SP, Finlayson M and Aiken LH. (2010): Nurse Burnout and Quality of Care: Cross-National Investigation in Six Countries. *National Institutes of health*; 33(4), 288-298.
- Maslach C and Jackson S. (1983): The measurement of experienced burnout. Available at <http://onlinelibrary.wiley.com/doi/10.1002/job.4030020205/pdf> Last accessed 11th September 2015
- Maslach C, Schaufeli WB and Leiter MP. (2001): Job burnout. *Annual Review of Psychology*; 52 (1), 397.
- Maslach C and Jackson S. (1982): Burnout in organizational settings. *Applied social psychology annual*; 5
- Aiken, L.H., Clarke, S.P., Sloane, D.M., Sochalski, J., & Silber JH. (2002). Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. *JAMA*, 288:1987-93.
- Alparslan, O., & Doganer, G. (2009). Relationship between levels of burnout of midwives who work in Sivas, Turkey province center and identified socio-demographic characteristics. *International Journal of Nursing and Midwifery*, 1(2), 019-028.
- Benson, M.A., Peterson, T., Salazar, L., Morris, W., Hall, R., Howlett, B., & Phelps, P. (2016). Burnout in rural physician assistants: An initial study. *J Physician Assist Educ*, 27:81-3.
- Dyrbye, L.N., Shanafelt, T.D., Sinsky, C.a., Cipriano, P.F., Bhatt, J., Ommaya, A., West, C.P., & Meyers. (2017). *Burnout among health care professionals: A call to explore and address this underrecognized threat to safe, high-quality care*. American Academy of Medicine. Retrieved from <https://nam.edu/burnout-among-health-care-professionals-a-call-to-explore-and-address-this-underrecognized-threat-to-safe-high-quality-care/>, accessed on September 1, 2017.
- Freudenberger, H.J. (1974). Staff burn-out. *J Social Issues*. 30(1):159-85.
- Haw, M.A. (1982). Women, work and stress: A review and agenda for the future. *J Health SocBehav*. 23:132-44.
- Jennings, B.M. (1990). Stress, locus of control, social support, and psychological symptoms among head nurses. *Res Nurs Health*. 13:393-401.
- Jennings, B.M. (2008). Work Stress and Burnout Among Nurses: Role of the Work Environment and Working Conditions. In: Hughes RG, editor. *Patient Safety and Quality: An Evidence-Based Handbook for Nurses*. Rockville (MD): Agency for Healthcare Research and Quality (US); 2008 Apr. Chapter 26. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK2668/>, accessed September 1, 2017.
- Lahana, E., Papadopoulou, K., Roumeliotou, O., Tsounis, A., Sarafis, P., & Niakas, D. (2017). Burnout among nurses working in social welfare centers for the disabled. *BMC Nursing*, 16:15.

- Lasebikan, V.O. & Oyetunde, M.O. (2012). Burnout among Nurses in a Nigerian General Hospital: Prevalence and Associated Factors. *Nursing*, 2012, 1-6.
- Letvak, S.A., Ruhm, C.J., & Gupta, S.N. (2012). Nurses' presenteeism and its effects on self-reported quality of care and costs. *Am J Nurs* 2012; 112: 30-8; quiz 48, 39.
- Lorenz, V.R., Benatti, M.C.C., & Sabino, M.O. (2010). Burnout and Stress Among Nurses in a University Tertiary Hospital. *Revista Latino-Americana de Enfermagem*, 18(6), 1084-1091.
- Maria, N. (2012). *Burnout among staff nurses. Examining the causes, coping strategies and prevention*. Bachelor of Nursing, Arcada Department of Health and Social Work. Retrieved from <https://www.theseus.fi/bitstream/handle/10024/105210/BURNOUT%20AMONG%20STAFF%20NURSES%20pdf.pdf?sequence=1>, accessed on September 1, 2017.
- Maslach, C., & Jackson, S. (1982). *Burnout in health professions: A social psychological analysis*. In: Sanders G, Suls J, editors. *Social psychology of health and illness*. Hillsdale, NJ: Lawrence Erlbaum; pp. 79-103.
- McHugh, M.D., Kutney-Lee, A., Cimiotti, J.P., Sloane, D.M., & Aiken, L.H. (2011). Nurses' widespread job dissatisfaction, burnout, and frustration with health benefits signal problems for patient care. *Health Aff*, 30:202-10.
- Muller, C. (1986). Health and health care of employed adults: occupation and gender. *Women Health*. 11(1): 27-45.
- Near, J.P., Rice, R.W., & Hunt, R.G. (1980). The relationship between work and nonwork domains: a review of empirical research. *Acad Manage Rev*. 5:415-29.
- Negi, Y. & Bagga, R. (2015). Burnout among nursing professionals in Tertiary care hospitals of Delhi. *Journal of Health Management*, 17(2), 163-177.
- Pearlin, L.I. (1983). *Role strains and personal stress*. In: Kaplan HB, editor. *Psychological stress Trends in theory and research*. New York: Academic Press; pp. 3-32.
- Woods, N.F. (1985). Employment, family roles, and mental ill health in young married women. *Nurs Res*. 34:4-10.
- Lorenz, V.R., Benatti, M.C.G. & Sabino, M.O. (2010). Burnout and stress among nurses in a University tertiary hospital. *Rev. Latino-Am. Enfermagem* 2010 Nov-Dec;18(6):1084-91.
- Leiter, M.P. & Maslach, C. (2009): Nurse turnover: the mediating role of burnout. *Journal of Nursing Management*; 17(3), 331-339
- Cimiotti, J.P., Aiken, L.H., Sloane, D.M., & Wu, E.S. (2012): Nurse staffing, burnout, and health care associated infection. Available at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3509207/pdf/nihms387953.pdf> last accessed 15th September 2017.
- Lorenz, V.R., Benatti, M.C.G. & Sabino, M.O. (2010). Burnout and stress among nurses in a University tertiary hospital. *Rev. Latino-Am. Enfermagem* 2010 Nov-Dec; 18(6):1084-91.

- Lasebikan, V.O., & Oyetunde, M.O. (2012). Burnout among Nigerian general hospital: Prevalence and associated factors. *International Scholarly Research Network*, 402157: 1-6.
- B.Moneta, G. (2011, January). Need for achievement, burnout, and intention to leave: Testing an occupational model in educational settings. *50*.
- Barbara Loera, D. C. (2014, December 12). *PLOS one*. Retrieved from <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0114987>
- Borritz, M. (2006). Burnout in human service work.
- Brian E.Lacy, J. L. (2017, July 19). Physician Burnout: The Hidden Health Care Crisis. Causes and Prevention of Burnout in Human Services. (2012, December 18). Retrieved from <https://nutripsychtherapy.wordpress.com/2012/12/18/causes-and-prevention-of-burnout-in-human-services/>
- Christina Maslach, W. B. (2001). JOB BURNOUT. *Annual Reviews*, 402-404.
- Dunkley, A. (2011, November 11). We are overworked, say nurses. *The Observer*.
- Freudenberger, H. (1974). *Burnout: The High Cost of High Achievement* .
- Golkar, A. J. (2014). The influence of work-related chronic stress on the regulation of emotion and on functional connectivity in the brain. doi:10.1371/journal.pone.0104550
- Howard, S. J. (2004). Resilient teachers: resisting stress and burnout. *Social Psychology of Education*. doi:<http://dx.doi.org/10.1007/s11218-004-0975-0>
- Johnson, J. (2016, November 5). Too stressed - Another teacher dies, JTA blames being overworked, expert says not so fast. *The Gleaner*. Retrieved from <http://jamaica-gleaner.com/article/lead-stories/20161105/too-stressed-another-teacher-dies-jta-blames-being-overworked-expert>
- Michel, A. (2016, February). Burnout and the Brain.
- Peter Janssen, D. E. (1998). Dimensionality and Validity of the Burnout Method. *Journal of Occupation and Educational Psychology*.
- Pinto, I. C. (2017, March 31). Stress, Burnout and Coping in Health. *Journal of Psychology and Brain Studies*, 1.
- Poyser, A. (2016, March 16). Students experiencing burnout after GSAT - psychologist. *The Gleaner*.
- Sofia Norlund, C. R. (2010, June 9). *Bio Med Central*. Retrieved from <https://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-10-326>
- Staff, M. C. (2015, September 17). Job burnout: How to spot it and take action.
- Statistic, B. o. (2009, September 10). Employed Persons by Detailed Occupation, Sex, Race, Hispanic or Latino Ethnicity. Retrieved from <http://www.bls.gov/cps/wlf-table11-2009.pdf>
- Wilmar B. Schaufeli, C. M. (2017). *Professional Burnout: Recent Developments in Theory and Research*.

- Zins, C. (2001, March). Defining Human Service. *The Journal of Sociology and Social Welfare*.
- Maslach, C., Schaufeli, W.B., & Leiter, M.P. (2001). Job burnout. *Annual Review of Psychology*, 52(1), 397.
- Maslach, C. & Jackson, S. (1982). Burnout in organizational settings. *Applied Social Psychology Annals*, 5.
- Maslach, C. & Leiter, M.P. (2005). Reversing burnout: How to rekindle your passion for your work. Available at [http://www.choixdecariere.com/pdf/6573/Maslach_Leiter\(2005\).pdf](http://www.choixdecariere.com/pdf/6573/Maslach_Leiter(2005).pdf), accessed November 8, 2017.
- Maslach, C., Jackson, S. & Leiter, M.P. (2012). Making a significant difference with burnout interventions: Researcher and practitioner collaboration. *Journal of Organizational Behavior*, 33, 296-300.
- Maslach, C. & Jackson, S. (1983). The measurement of experienced burnout. Available at <http://onlinelibrary.wiley.com/doi/10.1002/job.4030020205/pdf>, accessed November 8, 2017.
- Selye, H. (1956). *The stress of life*. New York: McGraw Hill.
- Lazarus, R.S., & Folkman, S. (1984). *Stress appraisal and coping*. New York: Springer.

Annex 2

Descriptive statistics for MBI and subscales as well as Outside- higher educational institution Burnout Index (ONBI)

			Statistic	Std. Error
Emotional Exhaustion	Mean		16.7469	.96358
	95% Confidence Interval for Mean	Lower Bound	14.8440	
		Upper Bound	18.6498	
	5% Trimmed Mean		16.3663	
	Median		13.5000	
	Variance		150.414	
	Std. Deviation		12.26433	
	Minimum		.00	
	Maximum		42.00	
	Range		42.00	
	Interquartile Range		22.00	
	Skewness		.450	.191
	Kurtosis		-1.080	.379
Inefficacy	Mean		8.5617	.58840
	95% Confidence Interval for Mean	Lower Bound	7.3998	
		Upper Bound	9.7237	
	5% Trimmed Mean		7.9883	
	Median		6.0000	
	Variance		56.086	
	Std. Deviation		7.48907	
	Minimum		.00	
	Maximum		36.00	
	Range		36.00	
	Interquartile Range		10.00	
	Skewness		1.115	.191
	Kurtosis		.733	.379
Depersonalization	Mean		7.7778	.57154
	95% Confidence Interval for Mean	Lower Bound	6.6491	
		Upper Bound	8.9065	
	5% Trimmed Mean		7.1454	
	Median		5.0000	
	Variance		52.919	
	Std. Deviation		7.27456	
	Minimum		.00	
	Maximum		33.00	
Range		33.00		

	Interquartile Range	9.00	
	Skewness	1.236	.191
	Kurtosis	1.084	.379
O_HEI_BI	Mean	6.2593	.23652
	95% Confidence Interval for Mean	Lower Bound	5.7922
		Upper Bound	6.7263
	5% Trimmed Mean	6.2263	
	Median	6.0000	
	Variance	9.063	
	Std. Deviation	3.01045	
	Minimum	.00	
	Maximum	15.00	
	Range	15.00	
	Interquartile Range	3.00	
	Skewness	.178	.191
	Kurtosis	-.063	.379
	TOTAL_MBI	Mean	41.3704
95% Confidence Interval for Mean		Lower Bound	39.5475
		Upper Bound	43.1933
5% Trimmed Mean		41.5412	
Median		41.0000	
Variance		138.036	
Std. Deviation		11.74887	
Minimum		6.00	
Maximum		74.00	
Range		68.00	
Interquartile Range		14.00	
Skewness		-.182	.191
Kurtosis		.875	.379

Annex 3

