ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

RELATIONSHIP AMONG OCCUPATIONAL STRESSORS, JOB DISSATISFACTION, WELL-BEING, ORGANIZATIONAL COMMITMENT AND TURNOVER INTENTION: THE CASE OF EMPLOYEES AT THE COLLEGE OF HEALTH SCIENCES, ADDIS ABABA UNIVERSITY

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Relationship among Occupational Stressors, Job Dissatisfaction, Well-being, Organizational Commitment and Turnover Intention: The Case of Employees of the College of Health Sciences, Addis Ababa University

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A Thesis Submitted to the College of Business and Economics, Addis Ababa University in Partial Fulfillment of the Requirements for the Degree of Master of Business Administration in Management

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COLLEGE OF BUSINESS AND ECONOMICS

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This is to certify that the thesis prepared by Anteneh Belete Shibeshi, entitled: "*Relationship among Occupational Stressors, Job Dissatisfaction, Well-being, Organizational Commitment and Turnover Intention: The Case of Employees of the College of Health Sciences, Addis Ababa University*" and submitted in partial fulfilment of the requirements for the Degree of Master of Business Administration (MBA in Management) complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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DECLARATION

I, the undersigned, declare that this study titled as "*Relationship among Occupational Stressors, Job Dissatisfaction, Well-being, Organizational Commitment and Turnover Intention: The Case of Employees of the College of Health Sciences, Addis Ababa University*" is the outcome of my own in-depth research. This study has not been submitted for a degree in any other university. It is submitted to the Addis Ababa University, College of Business and Economics in partial Fulfillment of the Requirements for the degree of Master of Business Administration in Management. All sources of materials used for the research have been duly acknowledged, cited and referenced.

Name: Anteneh Belete Shibeshi

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LETTER OF CERTIFICATION

This is to certify that Anteneh Belete Shibeshi has carried out his study under my supervision on the topic of "*Relationship among Occupational Stressors, Job Dissatisfaction, Well-being, Organizational Commitment and Turnover Intention: The Case of Employees of the College of Health Sciences, Addis Ababa University*." This work is original in its nature and is acceptable for submission in partial fulfillment of the requirement for the award of Master of Business Administration in Management.

Tsegabrhan Mekonen (PhD)

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Abstract

The higher education sector has been traditionally viewed by many as a less stressful and secure work environment offering high social standing and satisfying, autonomous work. However, this has changed over the past few decades and university teachers and employees are faced with a multitude of stressful issues. This study aimed to investigate the extent, sources and consequences of occupational stress among employees of the College of Health Sciences, Addis Ababa University. A quantitative, descriptive cross-sectional survey design was employed using the ASSET tool of occupational stress to which a six-items turnover intention tool was added. Both academic and non-academic (administrative and health professional) staff were enrolled. The study data were collected over a two-month period, from March 15, 2021– May 14, 2021. The explanatory power and predictive strengths of occupational stressors on the different outcome variables were examined using structural equation modeling (SEM) while differences among different demographic groups were assessed using independent samples t-test and one-way ANOVA. In comparison with the normative values of the ASSET tool, the participants of the current study showed higher levels of stress in terms of Work Relationship, Job Control, Resources and Communication, Pay and Benefits, and Job Dissatisfaction. On the other hand, lower levels of stress in terms of Work-Life Balance, Job Overload and Job Security were reported. Of the different categories of staff, academic staff were found to score the least in terms of the seven dimensions of job stressors except for Pay and Benefits. They also exhibited the lowest scores of Job Dissatisfaction and Turnover Intention. The SEM analysis showed that Work Relationship exerted the strongest effect on Job Dissatisfaction ($\beta = .270$, $p < .001$) followed by Resources and Communication ($\beta = .210$, $p < .001$). In turn, Job Dissatisfaction was found to exert the strongest effect on Turnover Intention ($\beta = .279$, $p<.001$). In terms of demographics, females reported significantly higher scores in terms of Turnover Intention than male employees. Employees with 1-5 years of work experience also exhibited significantly higher scores of Job Dissatisfaction, significantly lower scores of OC2E and EC2O compared to employees of longer work experience. Furthermore, employees with PhD and Specialty certificate showed the lowest scores of Job Dissatisfaction while those with Diploma and first degree reported the highest scores of Turnover Intention. Being high-risk groups, the administrative and health professional staff as well as newly recruited junior staff and those with lower qualifications should be targeted first if resources intended to tackle the impacts of work stress on individual employees and the organization are obtained. In addition, of the different dimensions of work stressors, attention should be focused on factors related to Work Relationship, Resources and Communication, and Pay and Benefits.

Keywords: *Occupational Stress, Job Dissatisfaction, Organizational Commitment, Well-being, Turnover Intention, Higher Education Institution, Structural Equation Modeling, Addis Ababa University*

TABLE OF CONTENTS

List of Tables

List of Figures

List of Acronyms

AAU	Addis Ababa University
ANOVA	Analysis of Variance
CHS	College of Health Sciences
EC2O	Employee Commitment to Organization
HEI	Higher Education Institution
LV	Latent Variable
OC2E	Perceived Organizational Commitment to Employee
OV	Observed Variable
SEM	Structural Equation Modeling
TOI	Turnover Intention
UK	United Kingdom
WB	Well-being

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

In spite of the unprecedented progresses that have been achieved in science and technology over the past decades, the level of occupational stress all around the globe seem to have gradually increased (Kinnunen-amoroso and Liira, 2016; Du Plessis and Martins, 2019). The most valuable asset of any organization is its employees. Employees are responsible for performing the core and support organizational functions, producing organizations' products and services, and liaising with customers and other stakeholders. Accordingly, organizations need to give due consideration to the health and well-being of their employees so as to maximize their creativity and productivity.

Job-related stress has enjoyed a great deal of attention by researchers since the 1970s in an attempt to understand the negative effects of work (Rothmann and Barkhuizen, 2008; Sang *et al.*, 2013). Indeed, stress-related morbidities and mortalities inflict a huge cost on the physical and psychological health and well-being of individuals as well as on organizational and national productivity (Bradley and Eachus, 1995; Mostert *et al.*, 2008; Sang *et al.*, 2013). Studies have shown that work-related stress, if left unmanaged, could impact employees' productivity, creativity, well-being and morale (Gillespie *et al.*, 2001; Faragher, Cooper and Cartwright, 2004). High levels of occupational stress are extremely costly to organizations and communities at large by way of health care expenses, compensation payments, lost productivity and employee turnover (Winefield *et al.*, 2003).

The association between occupational stress and the ensuing undesirable health consequences has been the focus of many researches (Steyn and Kamper, 2006). It is well documented that long term exposure to occupational stress could impact the physical, mental and behavioral well-being of employees causing more serious ailments like anxiety, depressive symptoms, high blood and cholesterol levels, ulcers, heart diseases, malaise and burnout (Faragher, Cooper and Cartwright, 2004; Mostert *et al.*, 2008). Moreover, the association between ill health and organizational productivity is also well documented (Bialowolski *et al.*, 2020). These devastating consequences of occupational stress on the health, morale and productivity of employees has led to a global attention to prevent, minimize and mitigate its impacts.

The higher education sector has traditionally been highly regarded and considered by many as a less stressful and secure work environment offering high social standing and satisfying, autonomous work (Catano *et al.*, 2010; Sang *et al.*, 2013). However, this has changed over the past few decades and university teachers and employees alike are faced with a multitude of stressful conditions as a result of extensive reforms in many countries (Sang *et al.*, 2013). In fact, there is growing body of evidence that universities are no longer the low stress working environments that they once were (Winefield *et al.*, 2003). In fact, reported stress in academia exceeds levels found in normative data in many places as a number of workplace stressors have emerged (e.g., Catano *et al*., 2010; Coetzee and Rothmann, 2005; Sun, Wu and Wang, 2011; Tytherleigh *et al*., 2005; Winefield *et al*., 2003).

It is imperative for higher education institutions (HEIs) to address and tackle occupational stress of their employees to achieve organizational effectiveness. Accordingly, the current study aims to investigate the extent, sources and consequences of occupational stress among academic and non-academic (administrative and health professional) staff of the College of Health Sciences (CHS), Addis Ababa University (AAU) to generate necessary evidence that would ultimately help in developing consequential solutions to prevent or mitigate the undesirable outcomes of occupational stress both on the employees and the organization.

1.2 Background of the Organization

Addis Ababa University (AAU) is the oldest and leading higher learning and research institution in Ethiopia. It was established over 70 years ago in December 1950 as the University College of Addis Ababa under the auspices of the imperial government, and in collaboration with, Canadian Jesuit educators (Ahmed, 2006). AAU currently has 14 campuses, 10 colleges and 12 research and teaching institutes. It runs 70 undergraduate and 293 graduate programs (72 PhD and 221 Masters), and various specialization and sub-specialization programs in Health Sciences (http://www.aau.edu.et/aau-at-a-glance/).

The College of Health Sciences (CHS) of AAU is the largest of the ten colleges under the AAU, established in 2009/10 by the reorganization of previously separate institutions of

health under one umbrella. The CHS is comprised of four schools and one teaching hospital. The four schools are the School of Medicine (SoM), the School of Pharmacy (SoP), the School of Public Health (SoPH) and the School of Allied Health Sciences, recently renamed as the School of Nursing and Midwifery (SoNM). The SoNM offers professional trainings in nursing, midwifery and medical laboratory technology. All Schools of the CHS offer professional degrees both at undergraduate and postgraduate levels except for the SoPH which offers only postgraduate degrees at Masters and PhD levels. However, the SoPH is heavily involved in offering public health courses to undergraduate students of the other Schools in the College. The CHS offers 9 undergraduate and over 100 postgraduate academic programs and currently enrolls about 7,000 students. It employs over 2,900 staff (855 academic, 1094 health professional, 847 administrative and 104 contract). The Tikur Anbessa Specialized Hospital (TASH) is the teaching hospital of the College. TASH is the largest specialized hospital in Ethiopia, with over 700 beds, and serves as the training center for undergraduate and postgraduate medical, dental, nurse, midwife, pharmacy, medical laboratory technology, medical radiologic technology students, and others who shoulder the health problems of the community and the country at large.

1.3 Statement of the Problem

The critical role that universities play in the socio-economic development of nations is indisputable. Universities supply the economy with the much-needed trained manpower and are responsible for much of the knowledge generation as well as research and development efforts. To this end, universities need to attract and retain the best talents and create a conducive, supportive and stress-free work environment for their employees. Unfortunately, the working environment in universities worldwide has been deteriorating over the past few decades (Barkhuizen and Rothmann, 2008). This has made universities to become increasingly more stressful for their employees and occupational stress has become disturbingly widespread reaching epidemic proportions (Winefield *et al.*, 2003).

The significant increase in student numbers and higher education institutions, increased focus on research and development, adjusting with the rapid changes in curricula, keeping abreast with the rapid advancement of science and technology are some of the reasons why

occupational stress in academia is on the rise (Du Plessis and Martins, 2019). This problem is further compounded by the fact that academic salaries lag behind other professions; academic positions are increasingly untenured or contract status; workloads have increased; career advancement is often slow; and, the pressure to obtain external funding and publish has increased (Catano *et al.*, 2010).

Likewise, the Ethiopian higher education sector has undergone substantial changes over the past couple of decades. The number of public and private HEIs has increased significantly; the number of students enrolled in older as well as the newer generation universities in both undergraduate and postgraduate programs has exponentially increased. In particular, the expansion of the postgraduate programs in Addis Ababa University and some of the first-generation universities has resulted in increased job demands from the few senior academic staff available in these institutions. Massification of higher education in terms of student enrolment, fields of study, graduate programs expansion particularly soared between 1999 and 2007 with the establishment of 13 new universities in the different regions of the country. There are currently 34 public universities and many private institutions of higher education (Bishaw and Melesse, 2017). Moreover, the first public university of the country, AAU, opened with fewer than 1,000 students. In 1991-92, the number of students enrolled in higher education institutions was only 14,994. This number soared to almost 200,000 by the year 2007 (Tessema, 2009). Clearly, this 'expansionist' strategy makes sense from the perspective of the country's desire to satisfy its need for trained manpower for its rapidly growing economy. However, this expansion, unfortunately, was not met with proportional increase in the required human and non-human resources. Consequently, this is believed to have put the staff members in HEIs under a great deal of stress.

To the best of the author's knowledge, apart from an institutional based study conducted among academic staff at the University of Gondar (Kabito *et al.*, 2020) and another one done on academic officers of HEIs in Oromia region (Kebelo, 2012), no other study has been done to investigate occupational stress in HEIs. These facts have stimulated this study of occupational stress among academic and non-academic (administrative and health

professional) staff in one of the largest colleges of the largest and oldest university in Ethiopia.

1.4 Research Questions

To address the problem statement, the following main and specific research questions were framed:

The main research question that guided the research was:

- What are the extents, causes and consequences of occupational stress among academic and non-academic (administrative and health professional) staff of the CHS, AAU?

The sub-questions formulated to operationalize the main research question are as follows:

- What are the levels of occupational stress, job dissatisfaction, well-being, organizational commitment and turnover intention among employees of the CHS of AAU?
- To what extent do occupational stressors predict job dissatisfaction, well-being, organizational commitment and turnover intention among employees of the CHS of AAU?
- Do job dissatisfaction, organizational commitment and well-being significantly mediate the relationship between occupational stressors and turnover intention?
- Are there statistically significant differences in occupational stressors, job dissatisfaction, organizational commitment, well-being and turnover intention with respect to demographic variables (i.e., sex, staff category, marital status, work experience and educational level)?

1.5 Research objectives

1.5.1 General objective

The general objective of this research was to investigate the extents, causes and consequences of occupational stress among academic and non-academic (administrative and health professional) staff of the CHS, AAU.

1.5.2 Specific Objectives

- To determine the levels of occupational stress, job dissatisfaction, well-being, organizational commitment and turnover intention among employees of the College;

- To evaluate the predictive ability of occupational stressors on job dissatisfaction, well-being, organizational commitment and turnover intention among employees of the College;
- To assess the predictive ability of job dissatisfaction on well-being, organizational commitment and turnover intention among employees of the College;
- To examine the mediating effects of job dissatisfaction, organizational commitment and well-being on the relationship between occupational stressors and turnover intention;
- To identify the effects of demographic variables on occupational stressors, job dissatisfaction, organizational commitment, well-being and turnover intention;

1.6 Significance of the Study

Studying occupational stress among employees of the CHS is of paramount importance to clearly grasp the experiences of academic and non-academic staff, as well as the causes and consequences of occupational stress. This in turn will have important implications for different stakeholders in the higher education as well as health sectors. Understanding the levels of occupational stress, its possible causes and consequences are very crucial steps in proposing substantive solutions to help prevent or mitigate the undesirable outcomes of occupational stress both on employees and the organization. For one, the findings of this research would be essential inputs for the College and University management. In order to enhance organizational performance, it is incumbent upon the organization's leadership to work towards molding the nature of work and workplace environment so as to render them less stressful and conducive to their employees. Second, the findings of this research can also be used as inputs by policy makers, primarily the Ministry of Science and Higher Education, to develop favorable policies that would protect employees of HEIs from occupational stress and consequently enhancing their productivity and the socio-economic development of the nation. Moreover, unlike the global picture where it remains to be an enduring area of investigation within the realm of organizational behavior research, the study of occupational stress among HEIs of Ethiopia is somewhat neglected and is not enjoying the attention of researchers in the area. Accordingly, this study is expected to encourage further research in the area including large-scale nation-wide studies.

1.7 Scope and Limitation of the Study

This study evaluated the extent, causes and consequences of occupational stress among different categories of employees of the CHS, AAU. However, it is delimited to one college of a university and, hence, may not represent the full picture of occupational stress in the Ethiopian higher education sector.

A major limitation of this study is related to the data collection process. A survey design is inherently limited in that it depends on self-report data. Accordingly, since the questionnaire was somewhat lengthy and self-administered by respondents, there is concern about the seriousness with which respondents completed the data. This concern is supported by the fact that the researcher was forced to drop a section from the questionnaire on "Absenteeism and Presenteeism" as there were unacceptably high levels of missing values and even the completed values were mostly questionable. As a result, the impact of occupational stress on organizational productivity was not evaluated in terms of these variables.

1.8 Definition of Key Terms

Bootstrapping: a method that estimates the sampling distribution by taking multiple samples with replacement from a single random sample.

Factor analysis: a statistical method used to describe variability among observed, correlated variables in terms of a potentially lower number of unobserved variables called factors.

Latent (unobserved) variable: a variable that cannot be observed. The presence of latent variables, however, can be detected by their effects on variables that are observable.

Observed (manifest) variable: a variable or factor that can be directly measured or observed.

Planned physical exercise/activity: a planned, structured, and repetitive activity for the purpose of improving or maintaining physical fitness.

Occupational stress: the harmful physical and emotional responses that occur when the demands of the job exceed the capabilities, needs or resources of the worker.

Structural equation modeling: a set of statistical techniques used to measure and analyze the relationships of observed and latent variables. Similar but more powerful than regression

analyses, it examines linear causal relationships among variables, while simultaneously accounting for measurement error.

1.9 Organization of the Thesis

This thesis is organized into six chapters. The first chapter consists of the background of the study and the study organization, statement of the problem, research objectives, the significance, the scope and limitation of the study, and organization of the thesis. The second chapter is dedicated to in-depth review of relevant literature, the conceptual framework for the study and the research hypotheses. Chapter three presents the research design and analysis including the study design and period, source and study population, inclusion and exclusion criteria, sampling procedure, data collection tools, data collection procedures and quality assurance mechanisms, data entry and analysis, and ethical considerations. Chapter four is dedicated to presentation of the findings of the study. Descriptive statistics, mean inter-item correlations of different variables, structural equation modeling analysis as well as independent sample t-test and One-Way ANOVA analyses are reported. Chapter five discusses the various results of the study. It includes citations of the works of other authors to compare and contrast the results of this study with those of others. Chapter six finally presents the conclusion of the study and recommendations of what the organization can do to curb the problem of occupational stress.

CHAPTER TWO: LITERATURE REVIEW

2.1 What is Occupational Stress?

Job-related stress has enjoyed a great deal of attention by researchers since the 1970s in an attempt to understand the negative effects of work (Barkhuizen and Rothmann, 2008; Sang *et al.*, 2013). Indeed, stress-related morbidities and mortalities inflict a huge cost on the physical and psychological well-being of individuals as well as on organizational and national productivity (Bradley and Eachus, 1995; Mostert *et al.*, 2008; Sang *et al.*, 2013). Studies have shown that work-related stress, if left unmanaged, could impact employees' productivity, creativity, well-being and morale (Gillespie *et al.*, 2001; Faragher, Cooper and Cartwright, 2004).

Job stress (also known as occupational stress or work stress) is a widely occurring and complex phenomenon. Stress is commonly perceived in terms of general physiological and psychological reactions that trigger undesirable health consequences when an individual's adaptive capacities are overstretched and when the resources of the individual are not sufficient to cope with the demands and pressures of the situation (Faragher, Cooper and Cartwright, 2004; Babatunde, 2013). Occupational stress occurs when there is imbalance between the physiological demands of a job and the inability of the individual to manage or cope with the demands (Lazarus, 1990; Mostert *et al*., 2008).

The challenges associated with providing a singular definition of stress is discussed in virtually all studies conducted on the topic. Due to its varied nature and perceptions, stress has been variously defined by researchers as either stimulus-based, response-based, or stimulus-response interaction between individuals and the environment (Michie, 2002; Steyn and Kamper, 2006; Barkhuizen and Rothmann, 2008; Mostert *et al.*, 2008; Weinberg, Sutherland and Cooper, 2010; Babatunde, 2013). The stimulus-based model of stress refers to the environmental factors that aggravate and cause strain in an individual exposed to such external factors, known as stressors. This model emphasizes on what happens to, and not what happens in, the individual. The response-based model, on the other hand, deals with the psychological, behavioral and physiological reactions of individuals to stressors, i.e., it refers to what happens in the individual. The stimulus-response (interactionist) model of stress

assumes stress as resulting from the interaction between the individual and environmental stimuli (stressors).

Compared to the first two definitions, the stressor-strain interaction approach is a more complex, comprehensive and widely accepted model of stress since it offers a more complete view of the dynamics of stress and explains the documented variations in individual experiences of stress within a single situation (Babatunde, 2013). It also accounts for the moderator or mediator variables in the stressor-strain relationship (Faragher, Cooper and Cartwright, 2004). As a result, contemporary views of the definition of stress require researchers to think of stress as a result of a transaction between the individual and the environment (Lazarus, 1990). The term 'transaction' entails that stress exists neither in the environmental input nor in the individual, but results from the interaction of the individual and the environment.

2.2 Conceptual Models of Occupational Stress

Several models of occupational stress have emerged over the past decades. These models have been instrumental in identifying job characteristics that are essential for the well-being of employees (Vegchel, Jonge and Landsbergis, 2005). These models can be grossly classified into Psychological/Medical, Sociological and Systemic models (Kenny, 2000). The medical model emphasizes on individuals rather than groups and focuses on treating sick workers instead of preventing the problem by creating healthy working environments. The sociological models depart from the medical models as they attribute the social organization of work as the leading cause of occupational stress. These theories regard the medical model's conceptualization of health and illness as individualistic and reductionist. Industrial sociologists contend as the major sources of occupational stress the power structures, industrial relations and politics, the institutionalized conflicts of interest between safety and productivity that exist in institutions. The systemic approach is unique in that it focuses on the system as a whole and not the individual or the organization separately. Occupational stress is attributed neither to symptoms of intrapsychic pathology, as in the medical model, nor to environmental factors, as in the sociological model. Occupational stress, according to this

model, is a system's effort to restore homeostasis or maintain equilibrium (Kenny, 2000). A few theories that exploit social systems theory are discussed briefly in this section.

2.2.1 Job Demand-Control Model

This model views strain as being caused as a result of the imbalance that exists between the demands and control, autonomy, or decision latitude of a job. The characteristics of a job, instead of the subjective perceptions of individuals, is the primary tenet of this model. On the basis of dimensions of demand and control, jobs fall into four classes: high-strain jobs (high demand/low control); low-strain jobs (low demand/high control); active jobs (high demand/high control); and passive jobs (low demand/low control). This model suggests that the best job would be active job while high-strain jobs would be related to depression, job dissatisfaction and high absenteeism. This original model has been expanded to include social support from coworkers and supervisors. The model, now referred to as demand-control-support model, posits control as a moderator of the demand-strain relationship when support is high (Karasek, 1979; Kenny, 2000; Chiang, Birtch and Kwong, 2010; Ganster and Perrewe, 2011; Landsbergis *et al.*, 2017).

2.2.2 Person-Environment Fit Model

The person-environment (P-E) fit theory focuses on the distress that ensues as a result of the lack of fit between the demands of the job and the individual's capabilities and qualities. Majority of publications on P-E fit model emphasize on the relationship between poor fit (either objective or subjective) and stress. Interventions taken to improve fit include measurement of fit before assigning someone to a particular job, or the evaluation of job stress etiology from the measurement of poor fit. The interaction between person's attributes like personality traits, experience and vocational orientations and variables of the environment have been shown to predict stressor-strain relationship than either of the two variables taken individually (Kenny, 2000; Spielberger, Vagg and Wasala, 2002; Ganster and Perrewe, 2011).

2.2.3 Effort-Reward Imbalance Model

The effort-reward imbalance model focuses on social reciprocity, a fundamental prerequisite of exchange in social life. It underscores the effect imbalance between effort and reward has

on adverse health effects. It signifies the impact of work characteristic in describing the link between self-regulatory needs such as self-esteem and self-efficacy, and the social opportunity structure. According to this model, effort is expended at work in a socially arranged exchange process and the organization pays the effort in the form of rewards. The latter could be in the form of money, esteem, or career opportunities. The model posits chronic strain would ensue at physical and psychological levels if there is lack of reciprocity between efforts (costs) and rewards (gains) (i.e., high effort/low reward conditions) (Siegrist, 2001; Rosen *et al.*, 2010; Landsbergis *et al.*, 2017).

2.2.4 Job Demands-Resources Model

This model proposes that job resources can mitigate the physiological, emotional and organizational demands of a job. This model was proposed as an extension of the Job Demand-Control-Support and Effort-Reward Imbalance models. According to this model, job demands foretell burnout; on the other hand, job resources such as job control, rewards, performance feedback, participation in decision-making and job security foretell motivation and work engagement. This model posits that burnout occurs in two ways: (1) extreme job demands lead to exhaustion; and (2) dearth of job resources makes it difficult to cope with job demands, resulting in withdrawal behaviors. Compared to the job demand-control model, the job demands-resources model encompasses more types of demands and resources making it more flexible (Demerouti, Bakker and Schaufeli, 2001; Siegrist, 2001).

2.3 Organizational Factors of Occupational Stress

The major factors of occupational stress are associated with either the content or context dimensions of work (Bradley and Eachus, 1995). The content-related factors are often linked to the intrinsic nature or characteristics of the job. Some examples of content-related factors include workload, excessive work pace and external disturbances. The context-related factors emphasize on how stress is induced by the role and responsibility that an individual holds within the organization (Babatunde, 2013).

ASSET (A Shortened Stress Evaluation Tool) is a very popular screening tool to help organizations assess the risk of occupational stress in their workforce (Johnson and Cooper,

2003; Johnson, Willis and Robertson, 2018). This tool was developed by Susan Cartwright and Cary L. Cooper at the University of Manchester in 2002 and is an extension of Cooper and Marshall's (1976) job stress model which outlines five different sources of stress (role in organization, relationship at work, career development, organizational climate, and intrinsic job factors). ASSET combines both the sources and the effects of stress. It evaluates potential exposure to stress in terms of seven common workplace stressors that are described below. It also yields critical information on the physical and psychological well-being of employees as well as organizational commitment. In addition, ASSET has a normative data against which institutions could be assessed (Faragher, Cooper and Cartwright, 2004).

2.3.1 Work Relationships

Employees normally spend significant part of their day with co-workers and superiors at the workplace. Clearly, the level of interpersonal interactions and support from these people can determine an individual's experience of workplace stress. It has been proposed that interpersonal relations has greater influence on women than men (Narayanan, Menon, and Spector 1999). Good work relationships actually help individuals to cope with stress by minimizing poor communication and mistrust. Common signs of poor work relationships include weak and unsupportive relationships with colleagues and/or superiors and unfair treatment. Work relationship was identified as a major stressor in a Canadian university (Biron, Brun and Ivers, 2008).

2.3.2 Work-Life Balance

Work-life conflict is considered an important source of stress and can have undesirable effects on the health and psychological well-being of individuals. Work-life balance refers to the lack of intrusion between family and work functions. This is a bidirectional work-life conflict, i.e., work can disrupt someone's life functions and vice versa (Frone, 2002). Stress-related outcomes such as burnout as well as physical consequences such as headache, fatigue and insomnia were shown to be related to work-life conflict (Allen *et al.*, 2000). Work-life balance was found to be a major stressor among academic and research staff of UK (Tytherleigh *et al.*, 2005) and South African (Barkhuizen and Rothmann, 2008) universities.

2.3.3 Work Overload

Workload denotes the amount of work to be accomplished in relation to the available time frame to complete the work. Unmanageable workloads and time pressure are common features of work overload. It has been shown that performing work under time pressure is a key factor of stress and has been related to high levels of strain, anxiety, depression and job performance (Westman and Eden, 1992). Stressful overload occurs when assigned tasks are beyond one's ability or cannot be completed simply because of limited available resources, both human and non-human. Work overload has been reported to be a major workplace stressor among Australian (Gillespie *et al.*, 2001) and Canadian (Biron, Brun and Ivers, 2008) universities.

2.3.4 Job Security

Downsizing or other change efforts by firms tend to prompt employees to assess their job security. According to Greenhalgh and Rosenblatt (1984), job insecurity is the "perceived powerlessness to maintain desired continuity in a threatened job situation." This definition encompasses two dimensions of job insecurity, i.e., the threat of job loss and the associated sense of powerlessness. The manifestations of this job insecurity include fear of job loss or obsolescence. Tytherleigh *et al*. (2005) found that the most significant job stressor among UK higher education employees was job insecurity.

2.3.5 Job Control

Job control is the level of freedom and autonomy an individual exercises to choose one course of action from several options. It refers to the opportunity an employee has to make independent decisions and to partake in the decisions made at the workplace. Employees may experience strain when they have limited control/autonomy to decide what, when and how to accomplish tasks, or when they don't partake in decision-making processes that affect their jobs (Rosen *et al.*, 2010). The links between decision latitude and perceived stressors and strains have been established (Spector, 2002). Low levels of job control were identified to be among the main occupational stressors among university teachers in Japan (Kataoka *et al.*, 2014).

2.3.6 Resources and Communication

Job resources are the physical, psychological, organizational or social aspects of a job that are essential in achieving work objectives, lower job demands, and arouse the personal growth, learning and development of employees (Bakker, Demerouti and Euwema, 2005). Relevant trainings/qualifications, equipment, resources like feedback mechanisms, social support and autonomy, and effective communication processes are some of resources and communication variables within an organization (Faragher, Cooper and Cartwright, 2004; Rothmann and Jordaan, 2006). The effect of several job demands on occupational stress has been demonstrated to be buffered by several job resources (Bakker, Demerouti and Euwema, 2005). Resources and communication have been shown to be important source of stress in South African HEIs (Coetzee and Rothmann, 2005; Barkhuizen and Rothmann, 2008).

2.3.7 Pay and Benefits

Pays and rewards could have significant effects on employee's commitment towards their job and organization. Job rewards could be intrinsic or extrinsic (Eden 1975; O'Driscoll and Randall 1999). Intrinsic rewards are inherent to the job and related to the 'task content' such as skill levels, autonomy and challenges while extrinsic rewards are related to salaries and other tangible benefits, social climate and working conditions (Lewis *et al*. 2001). The extrinsic rewards, pay and benefits can influence an employee's self-worth and organizational commitment (Faragher, Cooper and Cartwright, 2004; Mabaso and Dlamini, 2018). Pay and benefits has been shown to be a major occupational stressor among higher education staff in Australia (Gillespie *et al.*, 2001) and South Africa (Coetzee and Rothmann, 2005; Barkhuizen and Rothmann, 2008).

2.4 Consequences of Occupational Stress

The presence of stressors at the workplace does not mean an employee would be stressed. Different employees could resist the effects of stressors better than others. Optimal levels of stress might even be considered beneficial to enhance performance, particularly when employees are required to meet deadlines. However, optimal pressure (positive stress, 'eustress') which is beneficial to work performance has to be differentiated from excessive pressure (negative stress, 'distress') which is almost always deleterious to employees' health

and organizational performance (Faragher, Cooper and Cartwright, 2004; McGowan, Gardner and Fletcher, 2006). The negative effects of occupational stress on ill health, organizational commitment and employee turnover are discussed below.

2.4.1 Occupational Stress and Ill Health

Strain is an individuals' reaction to stressors at psychological, physical and behavioral levels. Long-term strain results in irritability, depressive mood, social withdrawal, back and chest pains, high blood pressure, gastrointestinal disturbances, and suppression of immune response (Faragher, Cooper and Cartwright, 2004). It also leads to serious health issues like heart diseases and mental illness (Mostert *et al.*, 2008). In addition, it often leads to harmful practices like excessive drinking, smoking and poor dietary habits.

It has been shown by many studies that occupational stress is implicated in physical and psychological strains of both academic and support staff. However, ill health may not necessarily be implicated on occupational stress as ill health could result from unhealthy lifestyle (Barkhuizen and Rothmann, 2008). Occupational stress has been linked with psychological distress, negative affect, job dissatisfaction and ill health (Bradley and Eachus, 1995; Winefield *et al.*, 2003; Yaacob and Long, 2015).

2.4.2 Occupational Stress and Organizational Commitment

Organizational commitment is the psychological attachment that employees have to their employing organization in terms of loyalty, identification and involvement (Mostert *et al.*, 2008; Viljoen and Rothmann, 2009). According to the three-component model of commitment, organizational commitment can assume three different forms, viz. affective, continuance and normative commitments (Allen and Meyer, 1990). Affective commitment refers to the psychological attachment, identification and involvement of employee to their organization. The continuance commitment is exhibited by employees as a result of low perceived alternatives or because of the high costs of leaving the organization. The normative component is related to the sense of obligation employees have to stay with their organization. Lack of organizational commitment has been investigated as a psychological outcome of organizational situations, including stressors; as a predictor of turnover intention; and as a moderator of the relationship between stressors and strain (Siu, 2002; Glazer and Kruse,

2008). It has been shown that occupational stress has a negative effect on organizational commitment (Viljoen and Rothmann, 2009).

2.4.3 Occupational Stress and Employee Turnover

Turnover intention refers to the odds of a deliberate and conscious willingness of an employee to leave his/her organization at some point in the near future; turnover intention is an immediate precursor of turnover behavior (Chen, Lin and Lien, 2011; Cho and Lewis, 2012). Turnover can be voluntary (an employee willingly terminates job) or involuntary (an employee made redundant by management) (Koys, 2001; Elci *et al.*, 2012). Voluntary turnover of employees has been a serious concern in human resource management for decades with far reaching consequences on organizational performance. At the same time, talent retention is becoming extremely important as human capital is increasingly becoming a crucial element of competitive advantage (Takawira, Coetzee and Schreuder, 2014). Occupational stress has been found to be associated with employee performance; a strong negative association between occupational stress and quality of working life, morale, motivation, job satisfaction and organizational commitment has been established leading to increased burnout, physical and psychological exhaustion, absenteeism and turnover intention (Mostert *et al.*, 2008; Chen, Lin and Lien, 2011; Mosadeghrad, 2014).

2.5 Occupational Stress in Higher Education Institutions

Occupational stress has been studied in different organizations and professional groups including HEIs. This section is dedicated to the review of literature of occupational stress studies done in HEIs. HEIs typically have two separate categories of staff, namely academic, and non-academic administrative or support staff. These two groups rarely share related jobs and administrative structures, and accordingly, experience different employee problems and concerns (Rothmann and Essenko, 2007). Academicians in higher educational institutions have triple mandates. That is, they are expected not only to do research, but also to make use of what they learn from their research to enhance the teaching-learning process and to exploit their expertise to address problems in their communities and beyond. This makes academic jobs demanding and possibly stressful, if not adequately managed (Ejue, 2013). On the other hand, all the remaining academic support, administrative support, and technical activities in universities are handled by the non-academic staff which could be stressful as well.

Indeed, several researches show that university employees are faced with organizational pressures, lack of social support and the ensuing occupational stress (Biron *et al*., 2008; Edwards *et al*., 2009). Gillespie *et al*. (2001) reported that the common sources of stress within Australian universities were lack of funding, resources and support services, work overload, poor leadership and management, job insecurity, and lack of promotion, recognition and reward. These sources of stress were valid both for academic and support staff even though academic staff as a group showed higher levels of occupational stress.

Another nationwide study of occupational stress in 17 Australian universities involving nearly 9000 academic and non-academic staff showed that 43% and 37%, respectively experienced high levels of psychological distress (Winefield *et al.*, 2003). The study found academic staff to be generally worse off than support staff both in terms of psychological distress and job satisfaction, and staff in newer universities to be worse off than those in older universities. Furthermore, psychological well-being of staff was highly associated with the university well-being measured in terms of investment income, student-staff ratios, and recent cuts in staffing levels and in government operating grants.

Biron *et al*. (2008) found in 1086 employees of all job categories in a Quebec university that 40.9% of employees experienced high levels of psychological distress. Work overload, work relationship and low involvement in organizational decision-making process were identified as major stressors. Employees experiencing high levels of psychological distress reported higher levels of emotional exhaustion, psychosomatic symptoms (e.g., allergies, sleep disorders, hypertension, and cardiovascular problems), job dissatisfaction, and turnover intentions.

Catano *et al*. (2010) reported occupational stressors and stress outcomes among 1440 employees from 56 Canadian universities. The study showed that 13% and 22% of the sampled employees stated to have high psychological distress and elevated physical health symptoms, respectively. In this study, work-life imbalance was found to be a strong predictor of job satisfaction and psychological distress while job insecurity strongly predicted job

satisfaction. Interestingly, the employees overall were satisfied with their jobs and demonstrated commitment to their organizations.

Daniels and Guppy (1994) reported high levels of psychological distress in 37.7% of 221 employees in a British university comprising of academic, administrative, clerical and technical staff. The study identified differences in stressors by job category, the academic staff describing workload as a major stressor while the administrative and technical staff were more impacted by factors associated with their roles (e.g., feeling ignored at work, not knowing what is expected of them, feeling the organization doesn't care about them).

Bradley and Eachus (1995) investigated occupational stress among academic and non-academic employees of a U.K. HEI. The findings of the study showed that the employees reported significantly higher levels of mental and physical illnesses as well as significantly lower job satisfaction, compared with a normative group. It was also noted that female employees were at higher risk from the negative consequences of occupational stress than were men. Organizational structure and climate (lack of consultation and communication) was found to be a major predictor of physical ill-health and job dissatisfaction. The study concluded that occupational stress is a major concern to individuals and organizations that calls for further studies.

Tytherleigh *et al*. (2005) employed the ASSET model of occupational stress to study all groups of employees (academic and non-academic) from 14 UK HEIs (13 universities and 1 college). The findings of the study showed that job insecurity was the most important stressor for both academic and non-academic staff. Moreover, work relationships, job control, and resources and communication were reported at significantly higher levels than the normative data. Among the different categories of employees, academic and research staff were found to be the most stressed with work-life balance and work overload being the major stressors. Interesting differences were noted between staff working at Old versus New universities and by category of employee. Stress related to work-life balance and job security was found to be significantly higher in Old universities while commitment from but not to organization was significantly lower among New universities. Based on the data generated from the 13 universities, Jacobs *et al*. (2007) performed secondary data analysis and found, in agreement

with the earlier research (Tytherleigh *et al*., 2005)), that work stressors are negatively related to performance. However, the stressor-performance relationship was influenced by physical/psychological well-being and organizational commitment. They also found differences in the stressor-performance relationship by category of staff indicating the role of job attributes.

Edwards *et al*. (2009) evaluated occupational stress in 2136 employees from four universities in the UK. From the results, it was found that higher education employees were generally dissatisfied with their works and careers, working conditions, job control and reported stress at work.

(Sun, Wu and Wang (2011) performed a study of occupational stress in 827 academic staff from eight universities of China. The study revealed that work-related factors like role overload, role insufficiency, social support, monthly income, research fund were major predictors of occupational stress. Improvements of mental health and organizational climate were proposed by the authors to mitigate the effects of occupational stress among university academics. On a related topic, Zhang (2012) studied the predictive ability of the big five personality traits on occupational stress in 246 academic staffs of a large comprehensive university in Guangzhou, China. The findings of the study showed that neuroticism was the strongest predictor of occupational stress. Employees that were higher in neurotic traits were more vulnerable to role overload and psychological strain. Conscientiousness was found to also be an important predictor, adaptive coping strategies being employed more frequently by faculty members that were high in conscientiousness. On the other hand, extraversion and openness were found to have modest effect and agreeableness was the least important predictor of occupational stress.

Ismail and Arma (2016) assessed the prevalence of occupational stress among 380 academic staff in a research university in Malaysia and found the prevalence to be 22.1%. In this study, teaching, research and career development were found to be significant predictors of occupational stress among academic staff. Competition for career development was the highest source of stress, the most stressful factors being conditions related to professional

development, achieving publication requirements for promotion and the required academic qualifications and acquiring research grants.

Coetzee and Rothmann (2005) assessed the occupational stress among 372 academic and support staff of a South African institution of higher learning employing the ASSET model of occupational stress. It was found that workload, job-control, work relationships and pay and benefits were the major occupational stressors. The participants also reported higher levels of physical and psychological distress as well as decreased levels of commitment from their organization. Later, Barkhuizen and Rothmann (2008) conducted a cross-sectional survey using the ASSET tool to investigate occupational stress in 595 academic employees of South African HEIs. The results showed that academics had higher levels of stress, compared to the normative data, related to pay and benefits, work-life balance and work overload. Analysis of variance revealed significant effect of demography in the relationship between occupational stress and ill health, overload and work-life balance contributing significantly to ill health. On the other hand, job control, work overload, resources and communication, and job characteristics significantly contributed to organizational commitment of academics to their organizations.

Mostert *et al*. (2008) determined the extent of occupational stressors at a South African HEI focused only on support staff. The findings of the study showed that resources and communication, job control and work relationships were major stressors among the participants and influenced organizational commitment. Moreover, the losses predicted in these institutions due to absenteeism, presenteeism and intention to leave job as a result of occupational stress are costly to HEIs. Interestingly, the participants showed average levels of occupational stress compared to the normative data.

Kabito *et al*. (2020) reported an institutional-based evaluation of occupational stress among 535 academic staff of Gondar University, Ethiopia. The authors employed a University and College Union stress questionnaire and found the overall level of occupational stress to be 60.4%. Moreover, work-load and low job control were found to be major stressors while smoking cigarette and age<28 years were moderators of work-related stress. The research recommended further large-scale studies to identify additional causes of work-related stress.

2.6 Conceptual Framework

The conceptual framework and the model proposed to examine the relationship between different variables of occupational stress to be employed in the current study are respectively presented in Figure 2.1 and 2.2 below. Stress is an intricate and dynamic process and requires consideration of all its important aspects to fully grasp the process (Lazarus, 1990). These facets of stress are the environmental factors or stressors, the moderating factors, and the consequences of stress for individuals as well as the organization. For the purpose of this study, the conceptual framework of the organizational stress screening tool, ASSET, described in Faragher *et al*. (2004) is adopted. The ASSET measures employee exposure to a wide range of occupational stressors. It also evaluates the causative effects of workplace stressors on job dissatisfaction, physical and psychological well-being as well as on the commitments of employees to their organizations and the perceived commitments of organizations to their employees. In the current study, the direct and mediational effects of job dissatisfaction, well-being and commitment on the relationship between stressors and turnover intention is also assessed. Furthermore, attempt is made to measure the effects of demographic factors on the different variables of the model.

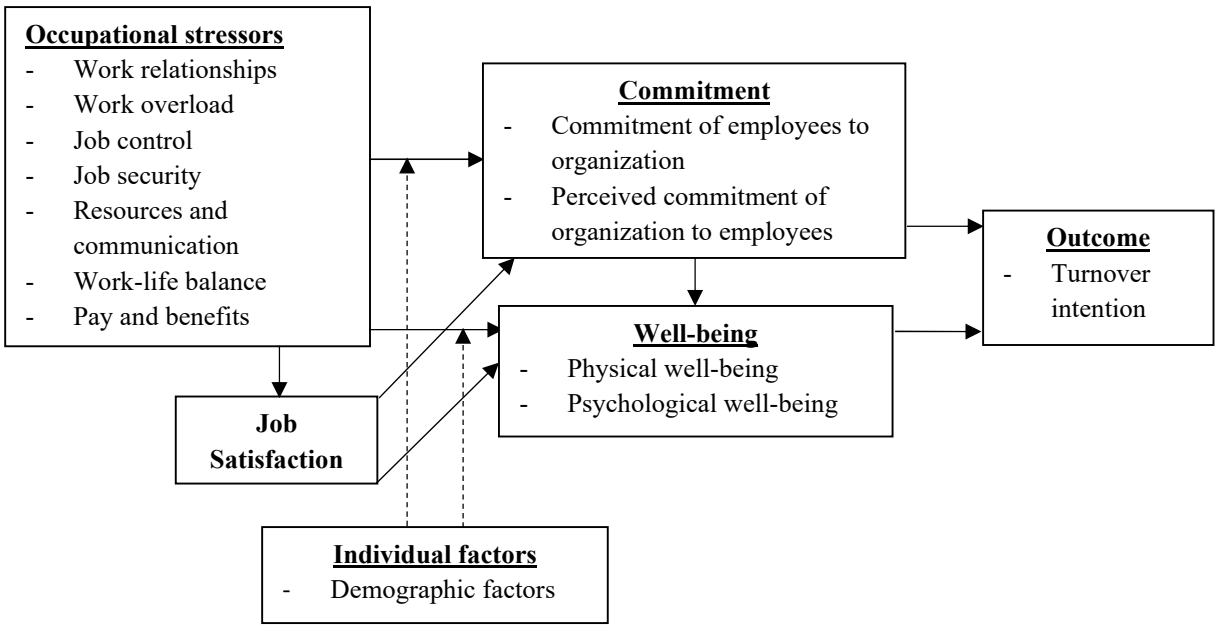

Figure 2.1: *Conceptual Framework to Study Occupational Stress Among Academic and Non-Academic Staff of the College of Health Sciences, AAU (adopted from Faragher et al., 2004).*

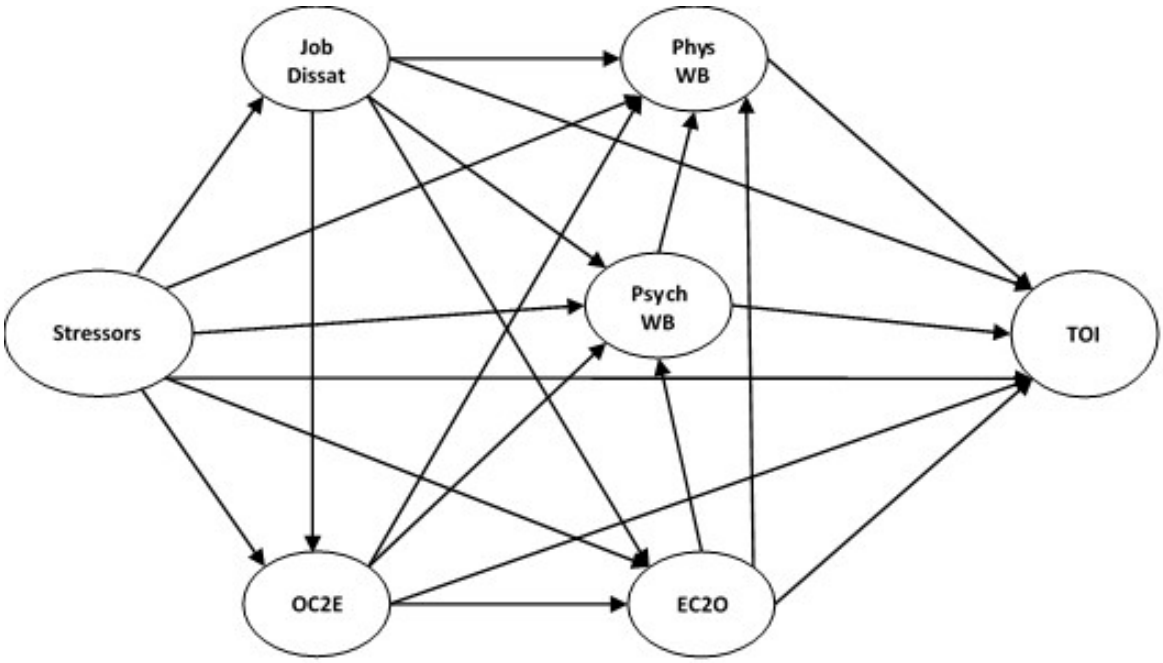

Figure 2.2: *Model Proposed to Examine the Relationship Between Different Variables of Occupational Stress in the College of Health Sciences, AAU.*

Key: Job Dissat = Job dissatisfaction; OC2E = organizational commitment to employees; EC2O = employees' commitment to organization; Phys WB = physical well-being; Psych WB = psychological well-being; and TOI = Turnover intention.

2.7 Research Hypotheses

Based on the literature review and the conceptual framework and to specifically answer the research questions, the following research hypotheses were proposed:

- Job stressors are positively associated with job dissatisfaction among academic and non-academic (administrative and health professional) staff at the CHS, AAU.
- Job stressors are negatively associated with physical and/or psychological well-being among academic and non-academic (administrative and health professional) staff at the CHS, AAU.
- Job stressors are negatively associated with organizational commitment among academic and non-academic (administrative and health professional) staff at the CHS, AAU.
- Job stressors are positively associated with turnover intention among academic and non-academic (administrative and health professional) staff at the CHS, AAU.

- Job dissatisfaction is negatively associated with physical and/or psychological well-being among academic and non-academic (administrative and health professional) staff at the CHS, AAU.
- Job dissatisfaction is negatively associated with organizational commitment among academic and non-academic (administrative and health professional) staff at the CHS, AAU.
- Job dissatisfaction is positively associated with turnover intention among academic and non-academic (administrative and health professional) staff at the CHS, AAU.
- Physical and psychological well-being are negatively associated with turnover intention among academic and non-academic (administrative and health professional) staff at the CHS, AAU.
- Psychological well-being is positively associated with physical well-being among academic and non-academic (administrative and health professional) staff at the CHS, AAU.
- Organizational commitment is positively associated with employee's physical and psychological well-being among academic and non-academic (administrative and health professional) staff at the CHS, AAU.
- Organizational commitment is negatively associated with turnover intention among academic and non-academic (administrative and health professional) staff at the CHS, AAU.
- Organizational commitment to employees is positively associated with employees' commitment to their organization among academic and non-academic (administrative and health professional) staff at the CHS, AAU.
- The relationship between occupational stressors and turnover intention is mediated by job dissatisfaction, physical and/or psychological well-being, and organizational commitment among academic and non-academic (administrative and health professional) staff of CHS, AAU
- There are statistically significant differences in occupational stressors, job dissatisfaction, physical and/or psychological well-being, organizational commitment and turnover intention among different demographic groups of staff of CHS, AAU.

CHAPTER THREE: RESEARCH METHODOLOGY

This chapter presents a description of the research design employed in the study, the study population including sample size and sampling technique, data collection instrument and procedures, the instrument's factor analysis, reliability and validity, the statistical techniques that are used to analyze the data and ethical considerations.

3.1 Study Design and Period

A quantitative, descriptive cross-sectional survey design was employed. Both academic and non-academic (administrative and health professional) staff of the College were enrolled in the study. The study data were collected over a two-month period, from March 15, 2021–May 14, 2021.

3.2 Source and Study Population

Source population was all academic and non-academic (administrative and health professional) staff in the CHS, AAU. The study population was selected samples of academic and non-academic staff from all academic and non-academic units of the CHS.

3.3 Inclusion and Exclusion Criteria

Since the College has non-professional employees that are not intended to be included in the study, the following inclusion and exclusion criteria were adopted. The inclusion criteria were for all full-time academic and professional non-academic (administrative and health professional) staff of both genders with a qualification of at least a diploma, employed for at least one year and willing to provide consent for the study to partake in the study. On the other hand, expatriate staff and staff on leave (e.g., maternity, sick, sabbatical) at the time of data collection were excluded from the study.

3.4 Variables

- **Dependent Variables**

- Job dissatisfaction, physical and psychological well-beings, organizational commitment (EC2O and OC2E), and turnover intention

- **Independent Variables**

- Occupational stressors

3.5 Sample and Sampling Technique

Stratified random sampling was used to ensure the sample selected are representative of all staff categories. The sample size was determined for each of the academic, administrative and health professional staff stratum using the Cochran's formula (Bartlett, Kotrlik and Higgins, 2001) shown below:

$$n = N * X/(X + N - 1) \quad \textbf{Eq. 3.1}$$

$$X = Z_{\alpha/2}{}^2 * p(1-p)/d^2 \quad \textbf{Eq. 3.2}$$

where $Z_{\alpha/2}$ is the critical value of the normal distribution at $\alpha/2$, d is the margin of error, p is the sample proportion, n is the sample size, and N is the population size.

According to the data obtained from the CHS Human Resources Department on 04 February 2021, the College currently has 855 academic staff, 847 administrative staff (of which only 218 hold diploma or higher degrees) and 1094 health professionals. Considering 50% proportion, 95% level of confidence and 5% margin of error, sample sizes of 265 academic, 285 health professional and 139 administrative staff were calculated. Assuming a 25% non-response rate, the final sample size of 920 was calculated (354 academic and 380 health professional and 186 administrative staff). Proportional allocation was used to determine the number of participants from the different academic and non-academic units of the College. The required number of samples was selected from each stratum (the strata were the 4 schools for academic staff; health professional background for the health professional staff; and the different administrative units of the College for administrative staff) by random sampling technique using computer generated random number. Age, gender, qualification and academic rank were not controlled during sampling even though they were used in the analysis of data.

3.6 Data Collection Tools

The Organizational Stress Screening Tool (ASSET), which is a widely used tool (Coetzee and Rothmann, 2005), was employed for the study to measure occupational stress, ill health and organizational commitment of academic and non-academic staff of the College (see Appendix I). This tool is a brief but psychometrically sound instrument that measures the degree to which employees are subjected to a variety of job stressors (Faragher, Cooper and Cartwright,

2004). The tool also measures job satisfaction and organizational commitment, which are instrumental in understanding the mediating effects of these variables in the stress-strain relationship. The tool has the added advantage of being easy to administer, completed quickly by most respondents and provide high response rate. The ASSET has been used to assess occupational stress among different professions, including health care, HEIs and education (Faragher, Cooper and Cartwright, 2004; Donald *et al.*, 2005; Tytherleigh *et al.*, 2005).

In addition, the "six-item version of the turnover intention scale (TIS-6)" (Bothma *et al.*, 2009; Bothma and Roodt, 2013) was adopted to assess the turnover intentions of the study participants.

3.7 Data Collection Procedure and Quality Assurance

The English version of the questionnaire was first translated into Amharic and both versions were pre-tested on 27 (16 English and 11 Amharic) members of the college staff who were not included in the main survey. Based on the input obtained from the pretest, few minor changes were made on the questionnaires. Before the commencement of the data collection, the Chief Executive Director and other members of the College management were contacted for permission to conduct the study. Once management approval was obtained, the data collection was initiated. Data collection was conducted for a period of two months from 15 March 2021 to 14 May 2021. The questionnaire was administered both in hard copy and online. Initially, the paper-based questionnaires were distributed via trained data collectors to the randomly selected academic, health professional and administrative staff. The English version of the questionnaire was used for academic staff while the Amharic version was used for health professional and administrative staff. One month into the data collection period, the online option was introduced as the response rate from the academic staff was not satisfactory. Accordingly, the Survey URL was sent out to the randomly selected academic staff by e-mail with an invitation letter. This initial e-mail was followed by a number of reminders to engage the staff to respond to the questionnaire.

3.8 Data Entry and Analysis

3.8.1 Data Entry

Data entry of the hard copy responses was done manually using EpiData Version 3.1 (270108). Both the EpiData and the online Google Form survey responses were then exported to Excel files. For data analysis, the Excel files were imported and merged into IBM SPSS Statistics software v25.0 (IBM Corp, Chicago, Illinois).

3.8.2 Data Cleaning

Data entered in the EpiData software were double checked against the raw scores from the respondents by a data entry clerk and an assistant to correct entry errors. In addition, frequency tables were generated to further clean the data by identifying missing or incorrect entries. During data entry, 6 cases that had whole missing pages/parts were identified and removed. The frequency tables also showed that significant proportion of the respondents did not seriously complete Part 5 of the instrument on "Absenteeism and Presenteeism" for which up to 276 (33.91%) missing values were identified (see Appendix II). Accordingly, this section was removed from further analysis. For the other parts of the questionnaire, there was a maximum of only 7 missing values per item in Part 2, 4 missing values per item in Part 3 and 4, and 3 missing values per item in Part 6. The final dataset comprised of 814 cases was used for analysis.

3.8.3 Data Analysis Techniques

In this study, descriptive and inferential statistics (i.e., independent sample t-test, analysis of variance (ANOVA), confirmatory factor analysis (CFA) and structural equation modeling (SEM)) were employed. The assumptions of these tests were examined to check if the data set fulfils the criteria. For this purpose, linearity, normality (both univariate and multivariate normality) and multicollinearity were checked. All requirements were met except for multivariate normality (see Appendix III). One of the techniques of dealing with multivariate non-normality is bootstrapping. Accordingly, bootstrapping technique was used for SEM analysis. Descriptive statistics, independent sample t-test and one-way ANOVA test were performed using the SPSS software while Analysis of Moment Structures (AMOS) Version 23.0 software was used for CFA and SEM analysis.

3.8.3.1 Descriptive Statistics

Mean and standard deviation (SD) were used to present results and make comparisons between them. The former was used as measure of central tendency while the latter was used as a measure of dispersion. In addition, Pearson correlation coefficients were used to show if there are relationships between different variables. Pearson correlation parameter evaluates the linear relationships that exist between two continuous variables. A value set at 95% confidence interval ($p \leq 0.05$) was used to determine statistical significance. For assessing practical significance of correlation coefficients, the following cut-off points were used (Cohen, 1988): r = 0.10 - small effect; r = 0.30 - medium effect; and r = 0.50 - large effect. For the purpose of the present study, $r \geq 0.30$ were assumed to be practically significant. In addition, the effect size index d was used in comparing the study results with normative values of the major variables of the study to determine the degree to which these phenomena exist in the study population. The following cut-off points were used (Cohen, 1988): d = 0.2 - small effect; d = 0.5 - medium effect; and d = 0.8 - large effect. Equation 3.3 below shows the equation for effect size index d.

$$d = \frac{m_A - m_B}{\sigma} \qquad \textbf{Eq. 3.3}$$

Where m_A, m_B = population means expressed in raw (original measurement) unit, σ = the pooled standard deviation.

3.8.3.2 Independent Samples T-test and One-Way Analysis of Variance (ANOVA)

Independent samples t-test was used to compare the means of two independent groups to establish statistical evidence of significant difference between their population means. One-Way ANOVA was used when the number of groups were three or more. For the One-Way ANOVA, Tukey's Post Hoc Test was used to identify specific differences between the group means when the ANOVA F-test was significant. One-Way ANOVA, instead of multivariate analysis of variance (MANOVA), was used as MANOVA failed to show significant differences among the independent variables. MANOVA is analysis of variance (ANOVA) which has been extended to analyze cases with two or more dependent variables (Warne,

2014). It is possible to use multiple ANOVA for each dependent variable as an alternate option to conducting MANOVA.

3.8.3.3 Structural Equation Modeling (SEM)

The first-generation analysis techniques such as ANOVA, logistic regression and MANOVA, suffer three common limitations, i.e., they assume simple model structure; all variables in these models are assumed to be observable; and all the variables are supposed to be determined without errors (Haenlein and Kaplan, 2004). To address these drawbacks, the second-generation techniques like structural equation modeling (SEM) are being used. SEM is a statistical approach widely used to analyze structural models that are described in terms of latent constructs (Meyers, Gamst and Guarino, 2016). It estimates models of linear relationships among latent variables (constructs, LV) and observed variables (indicators, OV) (Maccallum and Austin, 2000). LVs are constructs that cannot be directly observed and measured. As a result, LVs are typically determined in terms of multiple OVs that measure the latent constructs. As such, structural equation model is a hypothesized directional and nondirectional linear relationships among LVs and OVs.

SEM can analyze two categories of models which are the measurement model and the structural model, which together make up the structural equation model. The measurement model represents the relationships between the OVs and the LVs. On the other hand, the structural model represents the interrelationships among the LVs (Weston and Gore, 2006). The relationships between LVs can be expressed as direct effect, indirect effect or covariances. Direct effects are relationships among LVs and OVs analogous to those found in ANOVA or multiple regressions and represented by singe directional arrows. Indirect (mediated) effect is a relationship between independent (exogenous) and dependent (endogenous) LVs that is mediated by one or more LVs. Covariances are nondirectional relationships among independent LVs similar to correlations and represented by double-headed arrows.

SEM has many similarities with other commonly used quantitative statistical procedures like correlation, ANOVA and multiple regression. To begin with, all methods are general linear

models. In addition, all techniques depend on meeting specific assumptions and none of them infer causality (Weston and Gore, 2006). Causality in SEM is established only by the soundness of the theory suggesting the relationship, although causality can be hypothesized. On the other hand, an important peculiarity of SEM, as a second-generation multivariate analysis tool, is its ability to simultaneously estimate and test a set of hypothesized relationships among multiple OVs and LVs (Gefen, Straub and Boudreau, 2000; Haenlein and Kaplan, 2004).

Another distinction of SEM is that it involves evaluation of multiple test statistics and a host of fit indices in interpreting the significance of results and model fitting. The typical fit indices used in evaluating SEM models are the chi-square (χ^2) likelihood ratio statistic, goodness-of-fit index (GFI), comparative fit index (CFI), root mean square error of approximation (RMSEA) and Hoelter's critical N (Wan, 2002; Weston and Gore, 2006; Meyers, Gamst and Guarino, 2016). GFI summarizes the variance accounted for in the entire model and is analogous to the R^2 of regression analysis that measures the degree of variance explained by the independent variables. GFI values closer to 1.0 indicate better fit. The χ^2 is the most widely reported fit index and tests the difference between the theoretical and observed data. A good fit is implied when there is a non-significant χ^2 test. Like most statistics, however, χ^2 test also results in statistically significant results at large sample size as statistical power increases with sample size. The CFI measures the improvement of the fit of the observed model over a more restricted independence model that specifies no relationships among variables. CFI ranges from 0 to 1.0 and values closer to 1.0 indicate better fit. RMSEA analyzes the mean of the residuals between the empirical data correlation/covariance and the predicted model estimated for the theoretical model. RMSEA value of 0.00 indicates exact fit between the theoretical model and the observed data. Hoelter's critical N represents the larger sample size for which the hypothesis that the model is correct would be accepted. Hoelter's critical N greater than or equal to 200 is usually accepted.

In the present study, a covariance-based structural equation modeling was used to test the data against the proposed conceptual framework. Accordingly, the two-step approach of SEM was used (Anderson and Gerbing, 1988; Carvalho and Chima, 2014). First, the measurement

models were validated by using Confirmatory Factor Analysis (CFA) which evaluates the relationship between OVs and underlying hypothetical LVs. The second step focused on fitting the structural model by determining the significance of the relationship among LVs to one another through path analysis.

3.8.3.4 Factor Analysis, Reliability and Validity

Confirmatory factor analysis (CFA) deals in particular with the relationship between OVs (indicators) and LVs (factors), i.e., the measurement models. Its purpose is to define the number and nature of LVs that account for the variation and covariation within a group of OVs. CFA is utilized after a measuring instrument has been developed and when the underlying model structure has been defined based on previous theoretical or empirical findings (Brown and Moore, 2012). In essence, CFA is theory driven (analysis is driven by the conceptual relationships among OVs and LVs) and attempts to minimize the differences in the covariances of the observed and estimated models (Schreiber *et al.*, 2006). In the present study, CFA was employed to check the validity of the measurement models of the structural equation model.

An important component of CFA is the test of reliability and validity of OVs which are key indicators of the quality of measuring instruments (Kimberlin and Winterstein, 2008). Reliability refers to the consistency of a measure of a concept while validity refers to whether or not a measure of a concept really measures that concept. Accordingly, a measure could be reliable but not necessarily valid. Therefore, reliability is said to be 'a necessary but not a sufficient condition' for validity (Drost, 2011).

The three important parameters of reliability of measure are stability, internal reliability and inter-observer consistency. Stability (test-retest reliability) refers to the stability of a measure over time. Internal reliability is the extent of how well the indicators of a measure are related to other indicators of the same measure. Inter-observer consistency is the degree to which different raters would give consistent estimates of the measure. Because reliability determines consistency of a measure of a construct over time or in different conditions, the most commonly used technique to measure reliability is the correlation coefficient, otherwise

termed as reliability coefficient (Bryman and Bell, 2011; Drost, 2011). To determine internal consistency, the average intercorrelations among all the single items within a construct are used. Coefficient alpha, often referred to as Cronbach's alpha, is the most widely used parameter for testing internal consistency. In hypothesized measures of constructs, reliabilities of 0.70 or above are generally accepted.

In performing CFA in the present study, items for stressors, job dissatisfaction, organizational commitment, well-being and turnover intention were examined to check whether they represent their respective latent variables. Table 3.1 below shows the internal consistency (α) of the various latent variables in the model in comparison with previous similar studies done elsewhere (Faragher, Cooper and Cartwright, 2004; Donald *et al.*, 2005; Sang *et al.*, 2013). As can be seen from the table, most coefficients were above 0.70 and comparable to the internal consistency (α) values of the previous studies indicating the measurement models were reliable. The fact that these scales have been internally reliable across various studies in different parts of the globe provide evidence for the presence of the factors of the ASSET model.

Construct validity refers to how well a researcher translated or transformed a concept or a construct into a functioning and operating reality (Drost, 2011). To establish construct validity, accumulating evidence of different validity parameters is crucial. These are face, content, concurrent, predictive, convergent and discriminant validities. Face validity is a subjective judgement of whether or not the content of the measure appears to reflect the construct being measured. Content validity is a qualitative way of establishing whether or not measures/indicators sufficiently address the various dimensions of a concept it purports to represent. Convergent and discriminant validity show if scores on measures are respectively related to other measures of the same or similar construct (high correlations) and not related to other measures that are conceptually distinct (low or no correlations). While predictive validity checks if scores on a measure predict behavior on a criterion measure in the future, concurrent validity examines relationship between measure and criterion at the same time (Kimberlin and Winterstein, 2008; Bryman and Bell, 2011; Drost, 2011).

Table 3.1: *Comparison of internal consistency coefficient (Cronbach's alpha) for the ASSET model of occupational stress, and turnover intention.*

Latent variable	**Current study** (N=814; Ethiopia)	**Faragher *et al.* (2004)** (N=9196; UK)	**Donald et al. (2005)** (N=16001; UK)	**Sang et al. (2013)** (N=150; China)
Work relationship (8 items)	0.85	0.837	0.76	0.87
Job Overload (4 items)	0.66	0.817	0.77	0.76
Job Control (4 items)	0.70	0.813	0.67	0.70
Job security (4 items)	0.67	0.602	0.54	0.61
Resources & Communication (4 items)	0.66	0.693	0.65	0.77
Work-life Balance (4 items)	0.58	0.748	0.70	0.60
Pay and benefits (1 item)	-	-	-	-
Job Dissatisfaction (8 items)	0.69	0.659	0.57	0.66
OC2E (5 items)	0.81	0.826	0.68	0.79
EC2O (4 items)	0.81	0.772	0.79	0.75
Physical Well-being (6 items)	0.85	0.781	0.75	0.83
Psychological Well-being (11 items)	0.91	0.929	0.90	0.91
Turnover Intention (6 items)	0.79	-	-	-

To check for the convergent validity of the measurement models, the size and significance of the factor loadings, internal consistency reliability (Construct Reliability), and the average variance extracted (AVE) were used (see Appendix IV). Construct reliability is the construct's internal consistency reliability. While Cronbach's alpha is a widely used method of assessing reliability, it does not take the weight of the individual indicators in the calculations. Jöreskog's composite (construct) reliability overcomes this limitation since it considers the weights of the individual indicator based on their loadings and is therefore a preferred reliability approach in convergent validity examination. Values >0.70 are acceptable in exploratory research. Equations 3.4 and 3.5 below show the equations for CR and AVE, respectively (Aimran *et al.*, 2017).

$$\mathbf{CR} = \frac{\left(\sum_{i=1}^{n} L_i\right)^2}{\left(\sum_{i=1}^{n} L_i\right)^2 + \left(\sum_{i=1}^{n} e_i\right)} \qquad \textbf{Eq. 3.4}$$

$$AVE = \frac{\sum_{i=1}^{n} L_i^2}{n} \qquad \textbf{Eq. 3.5}$$

Where L_i = standardized loading, n = number of items, $e_i = 1-L_i^2$

With regard to all latent variables, most of the factor loadings were >0.5 and statistically significant. The items that measured the variables also had composite reliability of >0.70 and AVE >0.50 (with the exception of job dissatisfaction (AVE = 0.369) and turnover intention (AVE=0.399)) (see Appendix IV). Nonetheless, depending on the results from CFA, two items in stressors ('I work longer hours than I choose or want to' and 'I work unsociable hours, e.g., weekends, shift work etc.') and three items from job dissatisfaction ('I may be doing the same job for the next 5 to 10 years', 'My physical working conditions are unpleasant (e.g., noisy, dirty, poorly designed)' and 'My performance at work is closely monitored') were removed from the models as they functioned extremely poorly. All analysis were done with these items removed with the exception of the comparison done with the normative data of the ASSET tool for consistency reasons. From these evaluations, the validity of the different dimensions of CFA of the tool used in this study were deemed acceptable (Hair, Ringle and Sarstedt, 2013).

3.9 Ethical Considerations

Before the initiation of the study, the research proposal was approved by the Institutional Review Board of the CHS, AAU. During data collection, all respondents were provided with information regarding the purpose of the study and what was expected from them. They were also informed that participation was purely on voluntary basis. Participants were assured of anonymity and that their answers would remain confidential. They were also reassured that the report of the findings would not identify them and only the aggregate data would be reported. Informed consent of each participant to partake in the study was implied by returning the completed questionnaire.

CHAPTER FOUR: RESULTS

This chapter presents the findings of the study. Initially, descriptive statistics and mean inter-item correlations of different variables are depicted. Then, the reports of the SEM analysis are presented and, finally, the results of independent samples t-test and One-Way ANOVA analyses are reported.

4.1 Demographic Characteristics of Study Participants

A total of 920 questionnaires were distributed of which 820 were returned. A final valid sample of 814 (response rate of 88.5%) was achieved after discarding six questionnaires with significant levels of missing data. Of these, 281 (34.5%) were academic staff working in the four Schools of the College; 150 (18.4%) were administrative staff working in the different administrative functions of the College including in the TASH, and 365 (44.8%) were health professionals working in the TASH. These numbers exceed the minimum sample sizes calculated for each category of staff, i.e., 265 academic, 139 administrative and 285 health professional staff. As can be seen in Table 4.1, the gender distribution of respondents was nearly 1:1. In addition, about 60% of the respondents were married while 36.5% were single. Almost three fourth (74.4%) of the study participants were less than 40 years of age and almost two thirds (62.3%) had less than 10 years of work experience. Regarding the qualifications of the study participants, 41.2% were Bachelor degree holders, 24.8% were MSc holders, 15.7% were medical specialists and subspecialists, and 3.8% were PhD holders.

4.2 Levels of Occupational Stress, Well-being, Organizational Commitment and Turnover Intention

Table 4.2 summarizes the levels of occupational stress, well-being, organizational commitment and turnover intention among employees of the CHS, AAU. In comparison with the normative values of the ASSET tool reported by Faragher *et al.* (2004), the participants of the current study showed higher levels of stress in terms of Work Relationship, Job Control, Resources and Communication, and Pay and Benefits. However, according to Cohen's d Effect Size measure for two independent groups (Cohen, 1988), these were all found to have low effect size. In addition, higher level of Job Dissatisfaction with large effect compared to the normative value was observed. On the other hand, lower levels of stress in terms of Work-

Life Balance, Job Overload and Job Security were reported, the effects of Work-Life Balance being large and the rest being small. Interestingly, lower levels with large effect of OC2E and higher levels with small effect of EC2O were observed. Furthermore, better physical and psychological well-beings with large effects were registered compared to the normative values.

Table 4.1: *Demographics of study participants from CHS, AAU (N=814).*

Variable	Category	Frequency (n)	Percent (%)
Functional role	Academic	281	34.5
	Administrative	150	18.4
	Health professional	365	44.8
	Other	16	2.0
	Missing value	2	0.3
	Total	814	100.0
Gender	Male	413	50.7
	Female	394	48.4
	Missing value	7	0.9
	Total	814	100
Marital status	Married	485	59.6
	Single	297	36.5
	Divorced	18	2.2
	Widowed	7	0.9
	Missing value	7	0.9
	Total	814	100.0
Year of service	1-5 years	239	29.4
	6-10 years	268	32.9
	11-15 years	133	16.3
	16-20 years	60	7.4
	>20 years	59	7.2
	Missing value	55	6.8
	Total	814	100.0
Age	18-20 years	30	3.7
	21-30 years	246	30.2
	31-40 years	330	40.5
	41-50 years	125	15.4
	51-60 years	66	8.1
	>60 years	8	1.0
	Missing value	9	1.1
	Total	814	100.0
Qualification	Diploma	79	9.7
	BSc or equivalent	335	41.2
	MSc or equivalent	202	24.8
	PhD	31	3.8
	MD or equivalent	24	2.9
	Specialty	74	9.1
	Sub-specialty	54	6.6
	Others	14	1.7
	Missing value	1	0.1
	Total	814	100.0

When the study participants were segregated by category of staff, academic staff were found to score the least in terms of the seven dimensions of job stressors except for Pay and Benefits in which administrative staff scored the least. On the contrary, health professional employees of the College scored the highest in terms of Work-Life Balance, Job Overload, Resources and Communication, and Pay and Benefits while administrative staff scored the highest in Work Relationship, Job Security and Job Control dimensions. Academic staff were also found to score the least in terms of Job Dissatisfaction while the health professionals exhibited the highest levels.

In terms of both dimensions of organizational commitment, academic staff scored the highest points while health professional employees scored the least. On the other hand, in terms of the two dimensions of well-being, administrative staff scored the highest points while academic staff scored the least. Finally, academic staff scored the least points in terms of Turnover Intention while administrative staff scored the highest points.

Table 4.2: *Summary of Descriptive Statistics for Major Variables of the Study (N=814).*

		Normative Value		Current study		Cohen's d*	Academic		Health		Administrative	
	Variable	**Mean**	**(SD)**	**Mean**	**(SD)**		**Mean**	**(SD)**	**Mean**	**(SD)**	**Mean**	**(SD)**
Occupational Stressors	Work Relationship	19.3	7.2	20.96	8.45	0.21	18.3	7.23	22.0	7.95	23.3	9.80
	Work-Life Balance	25.1	6.5	13.49	4.50	- 2.08	12.5	4.32	14.3	4.23	13.5	5.00
	Job Overload	12.9	4.9	11.57	4.34	- 0.29	10.5	4.02	12.0	4.25	12.3	4.63
	Job Security	12.3	4.6	10.93	4.43	- 0.30	9.8	3.79	11.2	4.25	12.6	5.17
	Job Control	10.5	3.5	12.41	4.67	0.46	11.8	4.72	12.6	4.28	13.2	5.09
	Resources & Communication	12.3	4.3	13.40	4.70	0.24	12.3	4.29	14.3	4.40	13.2	5.56
	Pay and Benefits	3.5	1.7	3.59	1.85	0.05	3.68	1.89	3.69	1.82	3.2	1.77
Stress Outcomes	Job Dissatisfaction	12.5	4.9	25.74	7.71	2.05	22.8	6.58	28.3	7.24	25.3	8.33
	OC2E	20.0	5.4	14.56	5.24	- 1.02	15.9	4.80	13.5	5.05	14.9	5.72
	EC2O	18.0	3.7	19.49	5.84	0.30	20.7	5.10	18.4	5.64	20.0	6.84
	Psychological Well-being	24.0	7.6	36.33	6.82	1.71	35.3	6.81	35.9	7.05	39.0	5.61
	Physical Well-being	14.2	4.1	19.48	4.16	1.28	18.3	4.20	19.5	4.14	21.4	3.49
	Turnover Intention	-	-	19.98	6.03	-	16.5	5.31	21.6	5.29	22.3	6.23

*Cohen's d was calculated from the values of normative and total sample size of current study.

4.3 Prediction of Well-being, Organizational Commitment and Turnover Intention from Occupational Stressors

In order to evaluate the extent to which occupational stressors predict employee job dissatisfaction, well-being, organizational commitment and turnover intention, a preliminary correlation analysis among the different variables of the study were examined. Table 4.3 presents the results of the correlation analysis.

Table 4.3: *Interrelationships among Major Variables of the Study (N=814).*

		1	2	3	4	5	6	7	8	9	10	11	12
1.	Work Relationship	1											
2.	Work-Life Balance	.450**	1										
3.	Job Overload	.722**	.443**	1									
4.	Job Security	.615**	.434**	.586**	1								
5.	Job Control	.649**	.517**	.523**	.590**	1							
6.	Resources and Communication	.600**	.412**	.516**	.515**	.624**	1						
7.	Job Dissatisfaction	.660**	.474**	.576**	.570**	.576**	.611**	1					
8.	OC2E	-.023	-.031	.056	-.040	-.081*	-.136**	-.168**	1				
9.	EC2O	.044	.020	.077*	-.043	-.006	-.011	-.111**	.765**	1			
10.	Psychological Well-being	-.142**	-.136**	-.137**	-.106**	-.167**	-.164**	-.170**	.143**	.125**	1		
11.	Physical Well-being	-.024	-.110**	-.025	-.025	-.070*	-.133**	-.083*	.081*	.049	.763**	1	
12.	Turnover Intention	.296**	.212**	.243**	.335**	.270**	.299**	.422**	-.315**	-.241**	-.059	.012	1
13.	Pay and benefits	.337**	.222**	.324**	.307**	.324**	.426**	.404**	-.074*	-.024	-.138**	-.131**	.207**

Note: *p<.05; **p<.01

Table 4.3 shows that of the 78 pairwise correlations, 62 were statistically significant at least at the .05 level. As can be seen from the table, the seven dimensions of work stressors were all positively and significantly correlated ($p<0.01$) with Job Dissatisfaction. The magnitudes of the correlations were all large except for Work-Life Balance and Pay and Benefits in which cases the effects were medium. OC2E was significantly correlated at least at 0.05 level with Job Control, Resources and Communication, and Job Dissatisfaction, the direction of

relationship being negative. Similarly, EC2O was significantly correlated with Job Overload ($p<0.05$) and Job Dissatisfaction ($p<0.01$). The correlations were in both cases negative and the effects were small. However, the two dimensions of organizational commitment were positively correlated to each other with large effect ($r=.765$, $p<0.05$) indicating that these measures are quite correlated and measure very related constructs.

Psychological well-being was negatively and significantly correlated with all dimensions of work stressors and Job Dissatisfaction. However, the effects were all small. On the other hand, Physical Well-being was negatively and significantly correlated with only the following dimensions of work stress: Work-Life Balance ($p<0.01$), Job Control ($p<0.05$), Resources and Communication ($p<0.01$) and Pay and Benefits ($p<0.01$), and with Job Dissatisfaction ($p<0.05$), all effects being small. In addition, OC2E showed a positive and statistically significant correlation with Physical Well-being ($p<0.05$). Furthermore, the two dimensions of well-being were positively correlated to each other with large effect ($r=.763$, $p<0.05$).

Turnover Intention was significantly and positively correlated with all dimensions of job stressors and Job Dissatisfaction. However, the effects were largely small except for Job Security, Resources and Communication, and Job Dissatisfaction in which cases the effects were medium. Furthermore, Turnover Intention was found to be negatively and significantly correlated with the two dimensions of organizational commitment with a medium and small effects seen with OC2E and EC2O, respectively.

After assessing the intercorrelations among the different variables, the explanatory power and predictive strengths of occupational stressors on the outcome variables were examined using SEM. Figure 4.1 depicts the overall SEM model used to assess the strength and direction of possible influences among the variables.

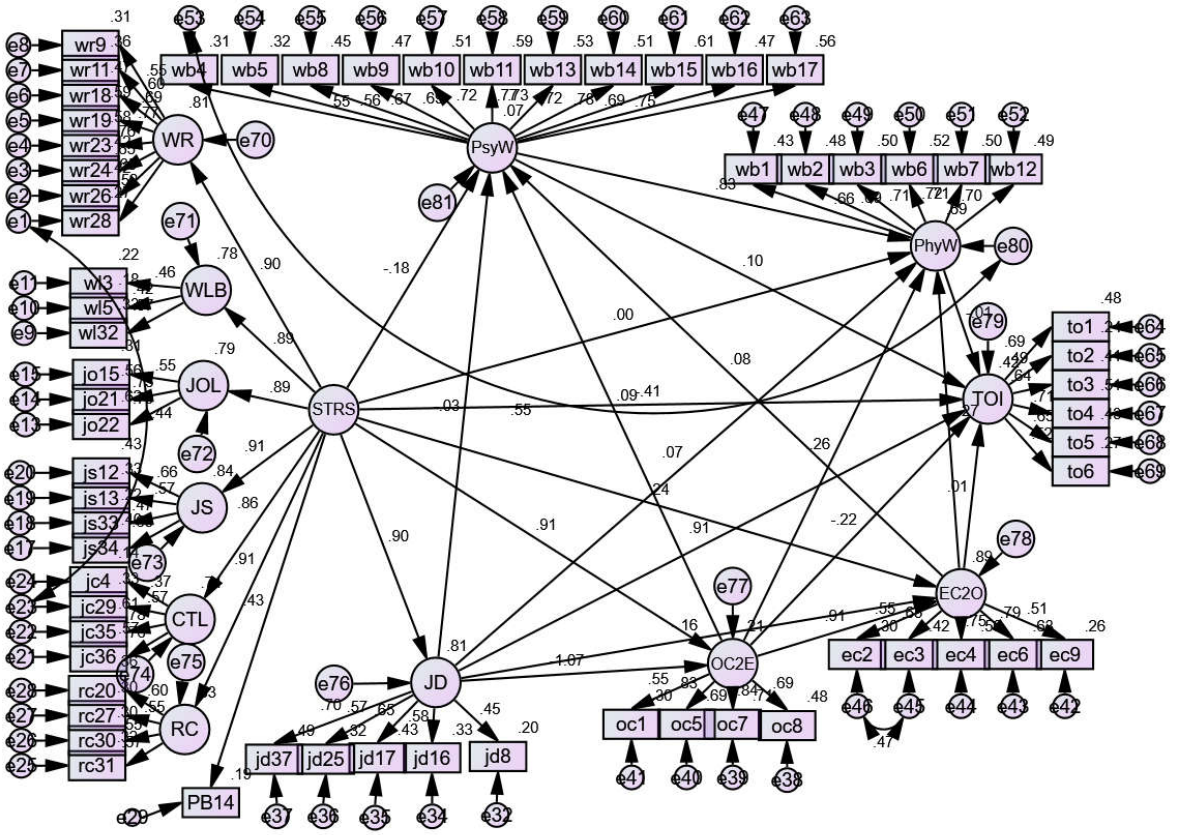

Figure 4.1: *The SEM Model of Variables of the Study.*

This model indicates the overall effect of stressors on the other variables. Most of the fit indices indicated that fitness of the model to the data is acceptable [$\chi 2$ (1923) = 6331.319, $p < .001$; CMIN/DF = 3.292; RMSEA = .053 (90% CI = (.052, .055)); $HOELTER_{.05}$ = 261; $HOELTER_{.01}$ = 266]. As Table 4.4 shows, in general, the model explained 42.1% of the variance in Turnover Intention. Stressors accounted for most (R^2 = 81.4%) of the variance in Job Dissatisfaction. Stressors and Job Dissatisfaction explained 21.4% of the variance in OC2E while stressors, Job Dissatisfaction and OC2E accounted for 89.0% of the variance in EC2O. Finally, stressors, Job dissatisfaction and EC2O explained about 7% of the variance in Psychological Well-being while Stressors, Job Dissatisfaction, OC2E, EC2O and Psychological Well-being accounted for 68.6% of the variance in Physical Well-being.

Table 4.4: *Variances Explained in Endogenous Variables (N=814).*

Predictor Variable/s	Criterion Variable	R^2
Stressors	Job Dissatisfaction	.814
Stressors & Job Dissatisfaction	OC2E	.214
Stressors, Job Dissatisfaction & OC2E	EC2O	.890
Stressors, Job Dissatisfaction & EC2O	Psychological Well-being	.070
Stressors, Job Dissatisfaction, OC2E, EC2O & Psychological Well-being	Physical Well-being	.686
Stressors, Job Dissatisfaction, EC2O, OC2E, Physical Well-being & Psychological Well-being	Turnover Intention	.421

In order to further examine the influences of the specific dimensions of occupational stressors on the outcome variables, the manifest variable model shown in Figure 4.2 was tested. A number of fit indices indicated that the fitness of this model to the data was also acceptable [$\chi 2$ (2) = 6.022, p = .049; CMIN/DF = 3.011; GFI = .999; CFI=.999; RMSEA = .050 (90% CI = (.003, .098); HOELTER$_{.05}$ = 809; HOELTER$_{.01}$ = 1244].

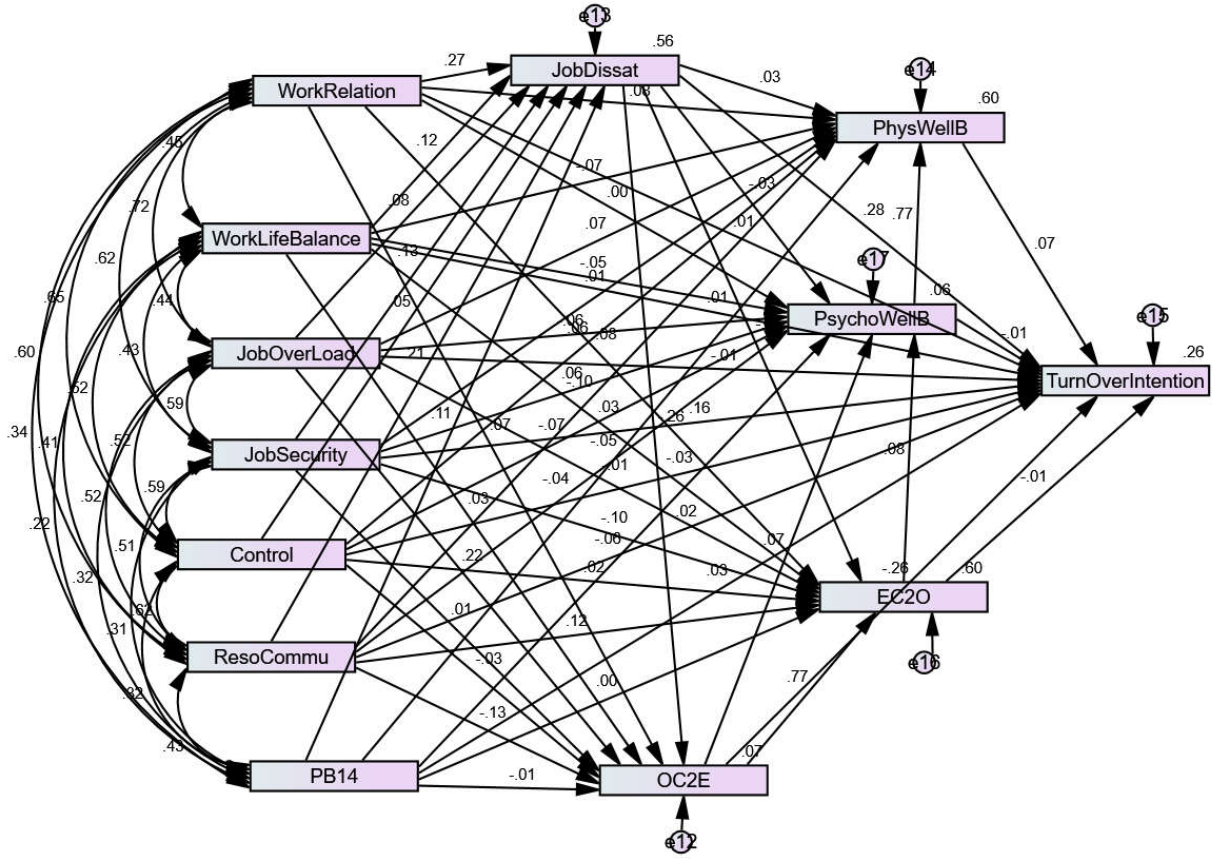

Figure 4.2: *SEM of the Influences of Dimensions of Occupational Stressors.*

The relative predictive strengths of the dimensions of occupational stressors were examined using the size of the structural (or regression) coefficients in the model. Table 4.5 summarizes the magnitudes and directions of these coefficients. Owing to space limitations, only statistically significant path coefficients are presented in the table.

Table 4.5: *Summary of Structural Coefficients for the Model Depicted in Figure 4.2 (N=814).*

Path From ⟶	To	**Standardized Structural Coefficient (β)**
Work Relationship	Job Dissatisfaction	.270***
Work-Life Balance	Job Dissatisfaction	.122***
Job Overload	Job Dissatisfaction	.077*
Job Security	Job Dissatisfaction	.132***
Resources & Communication	Job Dissatisfaction	.210***
Pay and Benefits	Job Dissatisfaction	.114***
Job Dissatisfaction	OC2E	-.263***
Job Overload	OC2E	.224***
Resources & Communication	OC2E	-.127*
OC2E	EC2O	.771***
Work Relationship	EC2O	.076*
Job Security	EC2O	-.103***
Resources & Communication	EC2O	.123***
Psychological Well-being	Physical Well-Being	.767***
Work Relationship	Physical Well-Being	.077*
Work-Life Balance	Physical Well-Being	-.069*
Resources & Communication	Physical Well-Being	-.103**
Pay and Benefits	Physical Well-Being	-.050*
Job Dissatisfaction	Turnover Intention	.279***
OC2E	Turnover Intention	-.256***
Job Security	Turnover Intention	.162***

Note: *p<.05; **p<.01; ***p<.001

The Work Relationship dimension of stressors exerted the strongest effect on Job Dissatisfaction of the employees than any other dimension ($\beta = .270$, $p < .001$) which suggests that when Work Relationship rises up by one standard deviation unit, Job Dissatisfaction increases by .27 standard deviations. Resources and Communication dimension exerted the second strongest effect on Job Dissatisfaction ($\beta = .210$, $p < .001$) followed by Job Security, Pay and Benefits, and Work-Life Balance, respectively in decreasing orders. Of the different dimensions, the smallest effect on Job Dissatisfaction was obtained with Job Overload ($\beta = .077$, $p < .05$) while Job Control did not exert significant effect on Job Dissatisfaction.

In turn, Job Dissatisfaction was found to exert the strongest negative effect on OC2E (β = -.263, p<.001). Of the different dimensions of work stressors, Job Overload, and Resources and Communication had significant effects on OC2E with the former one exerting positive effect (β = .224, p < .001) and the latter one exerting a smaller negative effect (β = -.127, p < .05). OC2E was found to have the strongest positive effect on EC2O (β = .771, p < .001) indicating that the two dimensions of organizational commitment are highly associated and an increase in one standard deviation unit of the former is accompanied by a 0.771 standard deviation increase in the latter. Of the different dimensions of work stressors, Work Relationship (β = .076, p < .05), Job Security (β = -.103, p < .001), and Resources and Communication (β = .123, p < .001) had significant effects on EC2O. It is interesting to note here that while the direction of relationship between Job Security and EC2O is as expected, unexpected positive predictive relationships between Work Relationship, and Resources and Communication with EC2O were obtained.

Psychological Well-being was the strongest positive predictor of Physical Well-being (β = .767, p<.001). Although none of the dimensions of work stressors had significant effects on Psychological Well-being, four of the dimensions predicted Physical Well-being, namely: Work Relationship (β = .077, p < .05), Work-Life Balance (β = -.069, p < .05), Resources and Communication (β = -.103, p < .01), and Pay and Benefits (β = -.050, p < .05).

Regarding Turnover Intention, the strongest predictive effect was observed from Job Dissatisfaction (β = .279, p < .001) while OC2E exerted the second strongest negative effect on Turnover Intention (β = -.256, p < .001). From the seven dimensions of stressors, in the presence of other variables, only Job Security dimension exerted statistically significant effect on Turnover Intention (β = .162, p < .001).

The above discussed relations are direct effects. However, this does not imply that the other dimensions of stressors do not exert influence on Turnover Intention. Indeed, these stressors exerted more remarkable effects on Turnover Intention not only directly, but also indirectly. These indirect or mediational effects are examined in the next section.

4.4 Indirect Effects of Occupational Stressors on Turnover Intention Via Job Dissatisfaction, Organizational Commitment and Well-being

Table 4.6 shows the mediational roles of Job Dissatisfaction, organizational commitment and well-being on the relationship between occupational stressors and Turnover Intention. The table illustrates the analyses of the direct, indirect and total regression effects of the dimensions of stressors on Turnover Intention. Of the seven dimensions of occupational stressors, four (i.e., Pay and Benefits, Resources and Communication, Job Security and Work Relationship) were found to exert statistically significant indirect effects on Turnover Intention. The indirect effect of Pay and Benefits (β=.035, $p<.05$) on Turnover Intention was found to be positive and statistically significant. This means, due to the indirect (or mediated) effect of Pay and Benefits on Turnover Intention, when this stressor goes up by one standard deviation unit, Turnover Intention goes up by .035 standard deviations. The total effect of Pay and Benefits on Turnover Intention (β=.069, $p<.05$) suggests that a unit standard deviation change in Pay and Benefits increases Turnover Intention by .069 standard deviations.

Table 4.6: *Summary of Results of Mediational Analyses.*

Relationship	Standardized Effects (β)		
	Direct	**Indirect**	**Total**
P&B➔Job Dissat ➔OC2E ➔EC2O➔Psych WB➔Phys WB ➔ TOI	.034	.035*	.069*
R&C➔Job Dissat ➔OC2E ➔EC2O ➔Psych WB➔ Phys WB ➔ TOI	.021	.095***	.116*
Job Security➔Job Dissat ➔OC2E ➔EC2O ➔Psych WB➔ Phys WB ➔ TOI	.162***	.048**	.210***
Work Relation➔Job Dissat ➔OC2E ➔EC2O ➔Psych WB➔ Phys WB ➔ TOI	.010	.082**	.092
P&B➔Job Dissat ➔OC2E	-.009	-.030***	-.039
R&C ➔ Job Dissat ➔OC2E	-.127*	-.056***	-.183**
Job Security ➔ Job Dissat ➔OC2E	.010	-.035***	-.025
Work-Life Balance ➔ Job Dissat ➔ OC2E	.029	-.032***	-.003
Work Relation ➔ Job Dissat ➔ OC2E	.068	-.071***	-.003
R&C ➔ Job Dissat ➔OC2E ➔EC2O	.123***	-.155***	-.032
Job Overload ➔ Job Dissat ➔EC2O	-.008	.151**	.143**
Job Dissat ➔ OC2E ➔ EC2O	-.070	-.203***	-.273***
Work Relation ➔ OC2E ➔EC2O➔Psych WB	.003	-.005**	-.002
OC2E➔Psych WB ➔Phys WB	.000	.097**	.097**

Key: P&B = Pay and Benefits; R&C = Resources and Communication; Job Dissat = Job dissatisfaction; OC2E = organizational commitment to employees; EC2O = employees' commitment to organization; Psych WB = psychological well-being; Phys WB = physical well-being; and TOI = Turnover intention.

Resources and Communication (β=.095, p<.001) and Work Relationship (β=.082, p<.01) also exerted statistically significant positive indirect effects on Turnover Intention. However, like Pay and Benefits, they exerted statistically non-significant direct effects on Turnover Intention. Moreover, while Resources and Communication exerted a statistically significant total effect on Turnover Intention (β=.116, p<.05), Work Relationship failed to achieve statistically significant total effect.

Of the different dimensions of work stressors, only Job Security exerted both statistically significant direct and indirect effects on Turnover Intention, the direct effect (β=.162, p<.001) being stronger than the indirect effect (β=.048, p<.01). The total effect of Job Security on Turnover Intention was the largest effect (β=.210, p<.001) of all the dimensions of work stressors.

Five dimensions of job stressors: namely, Pay and Benefits (β=-.030, p<.001), Resources and Communication (β=-.056, p<.001), Job Security (β=-.035, p<.001), Work-Life Balance (β=-.032, p<.001) and Work Relationship (β=-.071, p<.001) exerted statistically significant indirect effects on OC2E. However, of these dimensions, Resources and Communication, which also had direct effect (β=-.127, p<.05) on OC2E was able to exert statistically significant total effect on OC2E. On the other hand, two dimensions of work stressor, i.e., Resources and Communication, and Job Overload, and Job Dissatisfaction exerted statistically significant effects on EC2O. Of these, Job Overload (β=.143, p<.01) and Job Dissatisfaction (β=-.273, p<.05) were able to exert statistically significant total effects on EC2O. It is interesting to note that although Resources and Communication exerted statistically significant direct and indirect effects, it failed to exert statistically significant total effect. This is probably because of the opposing direct and indirect effects this variable had on EC2O. It is also interesting to point out that Job Overload exerted positive statistically significant indirect and total (β=.143, p<.01) effects on EC2O which suggests that an increase of Job Overload by one standard deviation increases EC2O by 0.143 standard deviations.

Finally, Work Relationship was the only dimension of work stressors that had indirect effect on Psychological Well-being. However, it failed to exert statistically significant total effect. On the other hand, OC2E exerted both indirect and total effects (β=.097, p<.01) on Physical Well-being via the mediating effect of Psychological Well-being.

4.5 Variations in Occupational Stressors, Job Dissatisfaction, Organizational Commitment, Well-being and Turnover Intention with Respect to Demographic Variables

Tables 4.7 and 4.8 show the variations in occupational stressors, Job Dissatisfaction, organizational commitment, well-being and Turnover Intention with respect to differences in demographic factors. Table 4.7 shows that there were statistically significant differences between male (N=413) and female (N=394) employees in terms of Work-Life Balance, Job Overload, Job Control, OC2E, EC2O and Turnover Intention. Closer examination of the results showed that males had significantly higher scores than females on the following dimensions: Work-Life Balance (Mean=9.87, SD=3.55 vs. Mean=9.13, SD=3.60), Job Overload (Mean=8.08, SD=3.62 vs. Mean=7.54, SD=3.48), Job Control (Mean=12.80, SD=4.75 vs. Mean=12.05, SD=4.55), OC2E (Mean=15.31, SD=5.20 vs. Mean=13.74, SD=5.20), EC2O (Mean=20.19, SD=5.97 vs. Mean=18.73, SD=5.67) while females scored significantly higher values in terms of Turnover Intention (Mean=20.63, SD=5.93 vs. Mean=19.44, SD=6.02).

In addition, Khat chewing was found to be an important factor associated with occupational stress. In the current study, differences were observed among those who chew Khat (N=9) and those who don't (N=797). Those that chew Khat showed significantly higher scores in all dimensions of work stressors except for Resources and Communication, and Pay and Benefits. They also demonstrated higher levels of Job Dissatisfaction (Mean=19.18, SD=4.45 vs. Mean=15.26, SD=5.91) and Turnover Intention (Mean=24.44, SD=3.71 vs. Mean=19.91, SD=6.04). In a similar fashion, employees who were drinking alcohol (N=53) reported significantly higher scores in terms of the following four dimensions of work stressors: Work Relationship, Work-Life Balance, Job Overload and Job Control in comparison with those

that didn't consume alcohol (N=755). However, statistically significant differences were not found in terms of Job Dissatisfaction and Turnover Intention.

Table 4.7: *Summary of Results from Independent Samples t-test (N =814).*

Dependent Variable	Independent Variable (t-values)		
	Sex	**Khat Chewing**	**Drinking Alcohol**
Work Relationship	1.32	2.91**	2.36*
Work Life Balance	2.93*	2.07*	2.41*
Job Overload	2.18*	3.31**	2.38*
Job Security	1.04	2.47*	1.17
Job Control	2.26*	3.04**	3.31**
Resources and Communication	-.27	1.20	1.82
Pay and Benefits	1.90	1.51	-.70
Job Dissatisfaction	-1.28	1.98*	.61
OC2E	4.29***	1.74	1.32
EC2O	3.55***	.53	1.68
Psychological Well-being	1.62	-1.53	-1.18
Physical Well-being	.57	-.11	-1.19
Turnover Intention	-2.84**	2.25*	.10

Note: *p < .05; **p < .01; ***p < .001

For demographic variables with more than two levels, One-Way ANOVA was used to examine the differences in the dependent variables. Results of these analyses are summarized in Table 4.8. Statistically significant results were obtained in OC2E and EC2O with respect to Academic Rank. Follow-up analysis using Tukey's Post Hoc Test indicated that, on OC2E, staff with a rank of Associate Professor (Mean=17.59, SD=4.29) reported significantly higher scores than staff with a rank of Assistant Professor (Mean=14.90, SD=4.78). Similarly, on EC2O, staff with a rank of Assistant Professor (Mean=19.60, SD=5.31) reported significantly lower scores than staff with ranks of Associate Professor (Mean=22.57, SD=4.48) and Lecturer (Mean=21.84, SD=4.39).

With regard to staff category, the ANOVA analysis has also shown significant differences in literally all variables of the study. In terms of Work Relationship dimension, academic staff (Mean=18.26, SD=7.23; N=281) reported the lowest scores which were significantly lower than those of administrative (Mean=23.33, SD=10.33; N=150) and health professional (Mean=22.02, SD=7.95; N=365) staff working in the College. In terms of Work-life Balance, health professionals (Mean=10.06, SD=3.48; N=365) reported significantly higher scores than

those of administrative (Mean=9.53, SD=4.04; N=150) and academic (Mean=8.86, SD=3.35; N=281) staff. In terms of Job Overload, academic staff (Mean=7.01, SD=3.08; N=281) reported significantly lower scores compared with those of administrative (Mean=8.50, SD=4.01; N=150) and health professional (Mean= 8.12, SD=3.61; N=365) staff. In terms of Job Security, administrative staff (Mean=12.61, SD=5.33; N=150) reported significantly higher scores than those of health professionals (Mean=11.15, SD=4.25; N=365) and academic staff (Mean=9.84, SD=3.79; N=281). In terms of Job Control, administrative staff (Mean=13.19, SD=5.31; N=150) reported significantly higher scores compared to academic staff (Mean=11.83, SD=4.72; N=281). In terms of Resources and Communication, health professionals (Mean=14.34, SD=4.40; N=365) reported significantly higher scores compared to academic (Mean=12.33, SD=4.29; N=281) staff. Health professionals (Mean=3.69, SD=1.82; N=365) also reported significantly higher scores of Pay and Benefits compared to administrative staff (Mean=3.20, SD=1.80; N=150).

Table 4.8: *Summary of Statistically Significant Results from One-Way ANOVA (N =814).*

	Independent Variable (F-values)					
Dependent Variable	Academic Rank	Staff Category	Service Year	Marital Status	Academic Qualification	Planned Physical Exercise
Work Relationship		16.31***			5.58***	
Work Life Balance		8.130**				2.46*
Job Overload		7.75***			4.03***	
Job Security		14.31***		4.09**	5.74***	2.46*
Job Control		3.70*			2.27*	2.34*
Resources and Communication		10.30***		2.99*	3.18**	2.47*
Pay and Benefits		2.97*		2.99*	2.08*	2.28*
Job Dissatisfaction		42.80***	3.89**	6.66***	10.86***	4.69***
OC2E	2.96**	12.14***	3.43**		3.58**	
EC2O	3.70**	8.97***	3.28*		4.08***	
Psychological Well-being		8.97***			3.75**	4.14**
Physical Well-being		19.06***	2.38*		7.20***	3.31**
Turnover Intention		57.16***	7.48***	5.61**	16.10***	

Note: *p < .05; **p < .01; ***p< .001

In terms of stress outcomes, health professionals (Mean=17.40, SD=5.63; N=365) reported significantly higher scores of Job Dissatisfaction in comparison with administrative (Mean=15.74, SD=6.35; N=150) and academic (Mean=12.49, SD=4.79; N=281) staff. On the contrary, health professionals (Mean=13.45, SD=5.05; N=365) reported significantly lower scores of OC2E in comparison with administrative (Mean=14.88, SD=5.82; N=150) and academic (Mean=15.89, SD=4.80; N=281) staff. Correspondingly, health professionals (Mean=18.37, SD=5.64; N=365) reported significantly lower scores of EC2O in comparison with administrative (Mean=20.01, SD=7.04; N=150) and academic (Mean=20.68, SD=5.10; N=281) staff. In terms of well-being, administrative staff (Mean=39.01, SD=5.74; N=150) reported significantly higher scores of Psychological Well-being in comparison with health professional (Mean=35.95, SD=7.05; N=365) and academic (Mean=35.33, SD=6.81; N=281) staff. Administrative staff (Mean=21.39, SD=3.52; N=150) also reported significantly higher scores of Physical Well-being in comparison with health professionals (Mean=19.46, SD=4.14; N=365), which in turn scored significantly higher values as compared to academic (Mean=18.38, SD=4.20; N=281) staff. Finally, in terms of Turnover Intention, academic (Mean=16.52, SD=5.31; N=281) staff reported significantly lower scores in comparison with administrative (Mean=22.29, SD=6.16; N=150) and health professional (Mean=21.60, SD=5.29; N=365) staff.

With regard to year of service, the ANOVA also revealed statistically significant differences in Job Dissatisfaction, OC2E, EC2O, Physical Well-being and Turnover Intention (see Table 4.8). Tukey's Post Hoc Test revealed that, in terms of Job Dissatisfaction, staff with 1-5 years (Mean=16.11, SD=6.09; N=239) of work experience had significantly higher scores than staff with 11-15 years (Mean=14.28, SD=5.76; N=133) and over 20 years (Mean=13.56, SD=6.09; N=59) of work experience. On the contrary, on OC2E, staff with 1-5 years (Mean=14.13, SD=5.39; N=239) of work experience showed significantly lower scores than staff with over 20 years (Mean=16.38, SD=5.44; N=59) of work experience while, on EC2O, staff with 1-5 years (Mean=19.08, SD=5.87; N=239) and 6-10 years (Mean=19.30, SD=6.00; N=268) of work experience showed significantly lower scores than staff with over 20 years (Mean=21.79, SD=5.47) of work experience. In addition, employees with over 20 years

(Mean=16.24, SD=5.67; N=59) of work experience reported significantly lower scores compared to all other groups of employees in terms of Turnover Intention.

Of the seven dimensions of work stressors, Job Security, Resources and Communication, and Pay and Benefits showed statistically significant differences in terms of marital status. In addition, there were significant differences in terms of Job Dissatisfaction and Turnover Intention. Tukey's Post Hoc Test showed that, in terms of work stressor dimensions, singles (Mean=11.50, SD=4.46; N=297) reported significantly higher scores of Job Security compared with married (Mean=10.64, SD=4.41; N=485) and divorced (Mean=8.61, SD=3.18; N=18) employees. Similarly, singles (Mean=3.71, SD=1.84; N=297) reported significantly higher scores of Pay and Benefits compared with divorced (Mean=2.44, SD=1.50; N=18) employees. In terms of Job Dissatisfaction, singles (Mean=16.39, SD=5.99; N=297) reported significantly higher scores compared with married (Mean=14.84, SD=5.84; N=485) and divorced (Mean=11.78, SD=4.97; N=18) employees. Correspondingly, singles (Mean=20.94, SD=5.78; N=297) reported significantly higher scores of Turnover Intention compared with married (Mean=19.55, SD=6.07; N=485) and divorced (Mean=16.33, SD=6.95; N=18) employees.

The ANOVA result also demonstrated that academic qualification resulted in statistically significant differences in all dimensions of work stressors with the exception of Work-Life Balance. In terms of Work Relationship, staff with PhD (Mean=17.16, SD=7.08; N=31) and Specialty certificate (Mean=17.12, SD=8.37; N=74) showed significantly smaller scores compared to those with Diploma (Mean=23.25, SD=11.04; N=79). In terms of Job Overload, those with Specialty certificate (Mean=6.24, SD=3.26; N=74) reported significantly lower scores compared to those having Diploma (Mean=8.42, SD=4.34; N=79) and first degree (Mean=8.28, SD=3.70; N=335). In terms of Job Security, those with Diploma (Mean=12.64, SD=5.69; N=79) reported significantly higher scores compared with those having Masters (Mean=10.28, SD=4.01; N=202), PhD (Mean=9.16, SD=3.44; N=31), Specialty (Mean=9.69, SD=4.31; N=74) and Subspecialty (Mean=9.87, SD=3.44; N=54) qualifications. In terms of Job Control, those with Specialty certificate (Mean=10.92, SD=4.56; N=74) reported significantly lower scores compared with those having Sub-specialty certificate (Mean=13.70,

SD=4.94; N=54). In terms of Resources and Communication, those with first degree (Mean=14.18, SD=4.76; N=335) reported significantly higher scores compared with those with PhD (Mean=11.26, SD=4.30; N=31). In terms of Pay and Benefits, those with Sub-specialty certificate (Mean=4.19, SD=1.86; N=54) reported significantly higher scores compared with those having Diploma (Mean=3.04, SD=1.86; N=79).

Analysis of stress outcomes based on academic qualifications also revealed significant differences among employees. In terms of Job Dissatisfaction, those with PhD (Mean=11.13, SD=4.42; N=31) and Specialty certificate (Mean=12.47, SD=4.93; N=74) reported the lowest scores which were significantly lower compared with those having Diploma (Mean=15.46, SD=6.65; N=79) and first degree (Mean=16.98, SD=5.89; N=335). In terms of OC2E, those with PhD (Mean=18.35, SD=4.36; N=31) reported significantly higher scores compared with all other qualifications with the smallest score reported by those with first degree (Mean=13.86, SD=5.22; N=335). Correspondingly, employees with a qualification of PhD (Mean=23.13, SD=4.03; N=31) reported significantly higher scores of EC2O compared with those having Diploma (Mean=19.20, SD=7.23; N=79), First degree (Mean=18.66, SD=5.93; N=335) and Specialty certificate (Mean=18.70, SD=5.43; N=74). In terms of well-being, those with Diploma reported the highest Psychological (Mean=39.61, SD=5.03; N=79) and Physical (Mean=21.87, SD=3.04; N=79) Well-being scores which were significantly higher than most other qualifications. In terms of Turnover Intention, those with Diploma (Mean=21.92, SD=6.05; N=79) and first degree (Mean=21.52, SD=5.59; N=335) reported the highest scores which were significantly higher than those with Masters (Mean=19.67, SD=5.64; N=202), PhD (Mean=15.35, SD=4.80; N=31), Specialty (Mean=15.68, SD=6.48; N=74) and Sub-specialty (Mean=17.65, SD=5.29; N=54) qualifications.

The effect of physical exercise was also analyzed using ANOVA and statistically significant results were obtained in terms of Work-Life Balance, Job Security, Job Control, and Pay and Benefits between those who perform planned physical exercise and those that do not. For instance, those that always perform physical exercise (Mean=8.67, SD=3.41; N=73) exhibited significantly lower scores in terms of Work-Life Balance compared with those that don't usually perform physical exercise (Mean=10.29, SD=3.50; N=134). Likewise, those that

always perform physical exercise (Mean=9.60, SD=4.46; N=73) exhibited significantly lower scores in terms of Job Security compared with those that don't usually perform physical exercise (Mean=11.48, SD=4.41; N=134). In terms of Pay and Benefits, those that always perform physical exercise (Mean=3.03, SD=1.85; N=73) reported significantly lower scores compared with those that don't usually perform physical exercise (Mean=3.92, SD=1.87; N=134).

In terms of stress outcomes, those that always perform physical exercise (Mean=12.89, SD=5.47; N=73) exhibited significantly lower scores in terms of Job Dissatisfaction compared to those that perform physical exercise whenever possible (Mean=16.00, SD=6.17; N=179); don't usually perform physical exercise (Mean=16.37, SD=5.86; N=134); and never perform physical exercise (Mean=15.87 SD=5.43; N=129). Further, in terms of well-being, those that always perform physical exercise (Mean=37.76, SD=6.60; N=73) exhibited significantly higher scores in terms of Psychological Well-being compared with those that perform physical exercise whenever possible (Mean=34.68, SD=7.92; N=179).

CHAPTER FIVE: DISCUSSION

The aim of the present study was to identify the levels of occupational stress, Job Dissatisfaction, well-being, organizational commitment and Turnover Intention among academic and non-academic (administrative and health professional) employees of the CHS, AAU. In addition, the study was interested in answering the question of to what extent occupational stressors predict Job Dissatisfaction, well-being, organizational commitment and Turnover Intention. Furthermore, it attempted to find out if Job Dissatisfaction, organizational commitment and well-being significantly mediate the relationship between occupational stressors and Turnover Intention. Finally, it sought to reveal if there are statistically significant differences in occupational stressors, Job Dissatisfaction, organizational commitment, well-being and Turnover Intention with respect to demographic variables like sex, staff category, work experience, academic qualification and academic rank.

5.1 Levels of Occupational Stress, Well-being, Organizational Commitment and Turnover Intention

The aggregated results of all categories of staff in the College were first compared with the normative data reported by Faragher *et al*. (2004). Literature indicates that employees of HEIs experience higher levels of occupational stress as compared to normative values (Tytherleigh *et al*. (2005); Barkhuizen and Rothmann (2008); Coetzee and Rothmann (2005)). The current study's results were in agreement with the results reported in these reports. The study participants of the current study, in general, experienced higher levels of stress in terms of Work Relationship, Job Control, and Resources and Communication while exhibiting lower levels of stress as a result of Work-Life Balance, Job Overload and Job Security. Tytherleigh *et al*. (2005), in a study of academic and non-academic employees of 14 UK HEIs, found Job Security to be the most important stressor for both academic and non-academic employees. In addition, they found out that Work Relationship, Job Control, and Resources and Communication were reported at significantly higher levels than the normative data. However, many other studies done elsewhere (Gillespie *et al*. (2001); Catano *et al*. (2010); Barkhuizen and Rothmann (2008)) reported Work Overload, Job Security and Work-Life Balance to be important sources of stress. The discrepancy between the findings of these reports and the current study could probably due to the unique Ethiopian context, and more

specifically, the College's context, that made Work-Life Balance, Job Overload and Job Security to be less important sources of stress. In the Ethiopian public higher education context, due to the huge massification of tertiary education, Job Security has not been considered a crucial source of stress (Tessema, 2009). Moreover, in the College's context, in preparation for "Vision 2025" of the College, staff numbers, particularly academic staff, have significantly increased in preparation for the envisioned massive expansion of the clinical services, and academic and research engagements to realize the Medical City Hub of Ethiopia. This could probably buffer the Work-Life Balance and Job Overload stressor dimensions that are quite prevalent among academic staff elsewhere. On the other hand, issues related to Work Relationship, Job Control, and Resources and Communication were found to be important stressors probably due to the relatively poor communication, employee empowerment and resource constrained work environment that exist within the College.

It is interesting that Pay and Benefits was not reported as a major source of stress. Even though the score was slightly higher than the normative data, the Cohen's d value was the smallest of all dimensions of work stressors. This is despite the fact that the salaries and benefits the College staff get are much lower than what similar professionals get in the private sector of the economy. The reason for this is probably due to the prestige, satisfaction and value most staff get out of working in a highly regarded HEI like AAU. Moreover, most staff members, particularly, those with health background, work in the private sector at their leisure time to earn additional income in addition to the consultancy professional services some staff members render to governmental and non-governmental clients.

When the study participants were segregated in terms of their functions within the organization, differences were observed among the different categories of staff. For instance, academic staff reported the lowest levels of Job Dissatisfaction and the highest scores in terms of both dimensions of organizational commitment probably because of their lowest scores in job stressors that help them to experience the least amount of occupational stress compared to the other categories of staff in the College. Because of these reasons, the academic staff also had the lowest scores of Turnover Intention compared with the other two staff categories. This finding is somewhat peculiar in that many previous studies showed academic staff to

experience higher scores of stress than non-academic staff (Gillespie *et al*. (2001); Winefield *et al*. (2003); Barkhuizen and Rothmann (2008)).

On the other hand, administrative staff which experienced the highest levels of Work Relationship, Job Security and Job Control also reported the highest levels of Turnover Intention. This suggests that these dimensions of job stressors are probably stronger predictors of Turnover Intention for the administrative staff. It was interesting to note that health professionals experienced the highest levels occupational stress in terms of Work-Life Balance, Job Overload, Resources and Communication, and Pay and Benefits. They also reported highest levels of Job Dissatisfaction. This could be due to the fact that health professionals working in the hospital have relatively more demanding work schedules including working at unsociable hours as well as stressful working conditions related to the resource constrained work environment coupled with unattractive Pay and Benefits.

Incidentally, compared to the administrative staff, academic and health professional staff scored higher levels of stress related to Pay and Benefits. In fact, the administrative staff scored lower than the normative value while the latter two categories scored higher than the normative value. Nonetheless, the administrative staff reported the highest scores for Turnover Intention which suggests that Pay and Benefits may not be a critical factor of stress for the administrative staff category.

The above arguments are further corroborated by the One-Way ANOVA results presented in Table 4.8. In general, academic staff reported the lowest statistically significant scores on virtually all seven dimensions of work stressors. On the other hand, health professionals reported significantly larger scores of Work-Life Balance, Resources and Communication, Pay and Benefits, Job Dissatisfaction and significantly lower organizational commitment (both OC2E and EC2O). Further, administrative staff reported significantly higher scores in terms of Job Security and Job Control.

It is also noteworthy that despite the lower levels of OC2E and higher levels of Job Dissatisfaction, higher levels of EC2O were reported in the study. This could be due to the

affective commitment the employees, particularly the academic staff, have towards the teaching profession. It could also be due to the continuance commitment some staff members have as a result of lack of job opportunities elsewhere (Luz, Paula and Oliveira, 2018). The latter case can be supported by the highest scores obtained for Turnover Intention, particularly for the administrative staff, despite their high scores of EC2O.

The implication of these results is that, being high-risk groups, the administrative and health professional staff should be targeted first if resources intended to tackle the impacts of work stress on individual employees and the organization are obtained.

5.2 Prediction of Well-being, Organizational Commitment and Turnover Intention from Occupational Stressors

The correlation coefficients between the different variables of the study showed statistically significant relationships among the job stressors and the outcome variables. Of the outcome variables, Job Dissatisfaction, Turnover Intention and Psychological Well-being had statistically significant relationships with all dimensions of work stressors. On the other hand, the two dimensions of organizational commitment and Physical Well-being were significantly related with only few of the dimensions of work stressors. For instance, OC2E was significantly correlated with Job Control, Resources and Communication, and Pay and Benefits which are clearly variables that are under the direct influence of the organization; EC2O was significantly correlated with Job Overload; and Physical Well-being was significantly correlated with Work-Life Balance, Job Control, Resources and Communication, and Pay and Benefits. These relationships are further discussed below in this section and the next.

The SEM model has shown the significant predictive power of different dimensions of occupational stressors on Job Dissatisfaction (R^2 = 81.4%). Of the different dimensions, the two most important predictors of Job Dissatisfaction among the study participants were Work Relationship, and Resources and Communication. This is expected in a socially cohesive cultural setting like Ethiopia where a healthy interaction of employees with co-workers and supervisors is highly regarded and can have a very profound impact on Job Dissatisfaction.

The negative consequence of Work Relationship on Job Dissatisfaction has been shown in a study done elsewhere (Loh, Restubog and Zagenczyk, 2010). Moreover, being a poor developing country, clearly resource constraint is quite rampant affecting employees' Job Dissatisfaction. Since Work Relationship was the strongest predictor of Job Dissatisfaction, it implies that significant levels of Job Dissatisfaction among employees could be addressed by improving communication and interaction among employees and supervisors. Moreover, even if it may not be possible to fully address the resource constraint, effort should be put to create a conducive work environment equipped with the basic resources that are required by employees. It is noteworthy that Job Security, Work-Life Balance, and Pay and Benefits also are significant predictors of Job Dissatisfaction. However, since Job Security and Work-Life Balance were not found to be significant stressors in the College's context (See Table 4.2), due attention should rather be given to Pay and Benefits.

Job Overload was the weakest predictor of Job Dissatisfaction. Moreover, Job Control was not a significant predictor of Job Dissatisfaction. This is an interesting finding as Job Overload (Biron *et al*. (2008); Daniels and Guppy (1994); Coetzee and Rothmann (2005)) and Job Control (Tytherleigh *et al*. (2005); Edwards *et al*. (2009); Coetzee and Rothmann (2005); Mostert *et al*. (2008)) were important predictors of Job Dissatisfaction in other studies.

The regression coefficients of the manifest variable model also show that Job Dissatisfaction is the strongest predictor of OC2E, the direction of relationship being negative, i.e., as Job Dissatisfaction increases, perceived OC2E will decrease. In addition, of the seven dimensions of occupational stressors, Job Overload, and Resources and Communication were found to be important factors in explaining the OC2E with the former one having a positive effect and the later one having a negative effect on OC2E. It is worth mentioning that as Job Overload increases, the perceived OC2E will also increase. This seems paradoxical; however, at optimal levels of Job Overload, it is possible for employees to feel higher levels of OC2E with increasing Job Overload. Shultz, Wang and Olson (2010) have reported that both role overload and role underload are responsible for higher levels of many undesired health-related outcomes, the effect of role overload being more detrimental. Nonetheless, since OC2E is the strongest predictor of EC2O ($\beta = .771$, $p < .001$), and a significant predictor of Turnover

intention (β = -.256, $p < .001$), it would be prudent for the organization to also address issues related to Job Dissatisfaction, in general, and issues related to Resources and Communication, and Job Overload, in particular.

In addition, Work Relationship was found to positively and significantly predict EC2O. This direction of relationship appears paradoxical. However, Yuksel and Tuncsiper (2011) have found a positive relationship between mobbing (bullying at workplace) and organizational commitment, which has been explained by high levels of continuance commitment among employees. Similar argument could be made for the positive and significant relationship between Work Relationship and Physical Well-being, as well as for the positive and significantly predictive effects of Resources and Communication with EC2O.

It is also of note from the regression coefficients that Psychological Well-being was the strongest predictor of Physical Well-being (β = .767, $p < .001$). Unfortunately, none of the seven dimensions of occupational stressor had significant direct effects on Psychological Well-being. However, a number of these dimensions had significant direct effects on Physical Well-being, of which, the strongest effect was observed for Resources and Communication followed by Work-Life Balance, and Pay and Benefits. Accordingly, in order to improve the Physical Well-being of employees and hence their productivity, the organization is advised to focus on issues related to Resources and Communication, Work-Life Balance, and Pay and Benefits.

Regarding Turnover Intention, the strongest predictor was Job Dissatisfaction followed by OC2E and Job Security. Indeed, in order to retain the highly trained and qualified employees of the organization, important steps have to be taken to address issues of Job Dissatisfaction, OC2E and factors that affect and significantly predict these variables. More specifically, these are the Work Relationship, Resources and Communication, and Pay and Benefits dimensions of work stressors (see Table 4.5). Of the seven dimensions of occupational stressors, Job Security directly predicts Turnover Intention. However, Job Security, just like Work-Life Balance and Job Overload, was not found to be a major job stressor among the study participants (see Table 4.2).

5.3 Indirect Effects of Occupational Stressors on Turnover Intention Via Job Dissatisfaction, Organizational Commitment and Well-being

Even though Job Security seemed to have the only direct effect on Turnover Intention, three more dimensions of work stressors were found to have statistically significant indirect effects on this outcome variable. Of these factors, the strongest total effect was found for Job Security, followed by Resources and Communication, and Pay and Benefits, respectively. This suggests that, in line with the previous argument, efforts need to be put on issues related to Resources and Communication, Work Relationship, and Pay and Benefits in order to retain qualified and trained employees of the organization. Work Relationship, Resources and Communication, and Pay and Benefits are among the factors that have strong and statistically significant direct effects on Job Dissatisfaction. Hence, working on issues related to Work Relationship, Resources and Communication, and Pay and Benefits, among others, will help to mitigate Turnover Intention by addressing the issue of Job Dissatisfaction.

Of the five dimensions of work stressors, Resources and Communication exhibited both direct and indirect effects on OC2E and having the strongest total effect. However, the other four dimensions had relatively small negative indirect effects, statistically non-significant direct and total effects OC2E. This clearly suggests, of all these factors, Resources and Communication seem to be the most important dimension that need to be prioritized to address the issue of OC2E. It should be emphasized that OC2E is a significant predictor of Turnover Intention (see Table 4.5). On the other hand, of the two dimensions of work stressors (i.e., Job Overload and Resources and Communication) and Job Dissatisfaction that have indirect effects on EC2O, Job Dissatisfaction exerted the strongest indirect and total effects. The second highest indirect effect was exerted by Resources and Communication. However, since the direct effect was positive and the indirect effect was negative, the total effect of Resources and Communication on EC2O failed to reach statistical significance as the direct and indirect effects neutralize each other's effects.

With regard to well-being, only Work Relationship showed a very small statistically significant indirect effect on Psychological Well-being. Even though it was surprising that

Work Relationship did not have direct effect on Psychological Well-being, it has shown indirect effect through the mediating effect of organizational commitment. Similarly, OC2E showed statistically significant positive indirect effect on Physical Well-being by the mediating effect of Psychological Well-being. This suggests that it is important to work on Work Relationship within the organization and on factors that affect OC2E, mainly Resources and Communication, in order to improve both Physical and Psychological Well-beings of employees.

5.4 Variations in Occupational Stressors, Job Dissatisfaction, Organizational Commitment, Well-being and Turnover Intention with Respect to Demographic Variables

In terms of demographic characteristics, males reported significantly higher scores of Work-Life Balance, Job Overload and Job Control. This is probably due to the sensitivity of males towards these factors compared to females. Kinman (1998) showed that men experience job stressor dimensions related, in particular, to Job Control more intensely than women. However, because there were no statistically significant differences in terms of the factors that largely predicted Job Dissatisfaction, i.e., Work Relationship, Resources and Communication, and Job Security, significant differences were not observed between the two genders in terms of Job Dissatisfaction. Despite this, males reported significantly higher scores in terms of both dimensions of organizational commitment while at the same time reporting significantly lower scores of Turnover Intention. Even though studies have shown females to be more prone to Turnover Intention (e.g., Cotton and Tuttle (1986)), Miller and Wheeler (1992) have shown that gender differences in Turnover Intention disappear when job satisfaction is controlled in the analysis, meaningful work and opportunities for promotion, being the two important components of job satisfaction in the study. Note that Job Dissatisfaction is a strong predictor of Turnover Intention and that females have reported higher levels of Job Dissatisfaction than males in the current study even though the difference has not reached statistical significance.

In terms of Khat chewing and alcohol consumption, those that chew Khat and drink alcohol in general reported higher levels of work stress. However, Khat chewing seem to be more

strongly associated with Job Dissatisfaction and Turnover Intention than alcohol drinking. Watts and Short (1990) reported that alcohol and drug use were strongly correlated with stress variables. While alcohol use was found to be correlated with Job Overload, amphetamine use was correlated with Work Relationship and Job Overload.

Job Dissatisfaction, in general, showed decreasing scores with year of experience. In addition, in terms of both dimensions of organizational commitment, there seem to be direct relationship with year of experience, i.e., with increasing year of experience, organizational commitment appears to increase. Further, employees with >20 years of work experience reported significantly lower scores in terms of Turnover Intention. This is interesting that with increasing year of experience, Job Dissatisfaction decreases with increasing organizational commitment and a decrease in Turnover Intention. Mosadeghrad (2014) found decreasing occupational stress and Turnover Intention with longer tenure in a sample of hospital employees in Iran.

In terms of marital status, singles, in general reported significantly higher scores of work stress as well as higher levels of Job Dissatisfaction and Turnover Intention. Mosadeghrad (2014) also found higher occupational stress scores for singles compared to married employees. This is possibly due to the dearth of financial, psychological and social supports in singles that married employees would get from their spouses, offspring and the wider social network that comes along with it.

Analysis based on academic qualification showed that those with lower qualifications were generally more affected by Work Relationship, Job Overload and Job Security while being less concerned about Pay and Benefits. This could be due to their lower levels of skill and qualification that makes them more vulnerable to these work stressor dimensions. Correspondingly these employees were found to have the highest scores in terms of Job Dissatisfaction and Turnover Intention, and the lowest scores of organizational commitments. However, these employees paradoxically reported the highest scores in terms of both Psychological and Physical Well-beings.

In terms of performing physical exercise, those that always perform planned physical exercise were less susceptible to many of the job stressors including Work-Life Balance, Job Security and Job Control. As a result, these employees also reported the lowest scores of Job Dissatisfaction and the highest levels of Psychological Well-being. This clearly demonstrates the moderating effect of physical exercise on occupational stress. Heuse, Gekeler, and Fodor (2020) found that vigorous physical exercise is an important personal resource to buffer the undesirable effects of job stress and burnout symptoms.

CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

6.1. Conclusions

The ASSET model of job stress was successfully evaluated among employees of the College of Health Sciences, Addis Ababa University. Compared to the normative data, employees of the College have demonstrated higher levels of stress in terms of Work Relationship, Job Control, Resources and Communication, and Pay and Benefits dimensions of work stressors while at the same time reporting lower scores in terms of Work-Life Balance, Job Overload and Job Security. In addition, lower scores of OC2E and higher levels of EC2O with better scores for both physical and psychological well-beings were reported.

Of the three categories of employees within the College, the academic staff scored the lowest levels of stressors, Job Dissatisfaction and Turnover Intention. At the same time, they exhibited the highest scores in both dimensions of organizational commitment, but the lowest scores of Physical and Psychological Well-beings.

The study has shown the interrelationships between the different variables of the study including the various dimensions of job stressors, Job Dissatisfaction, organizational commitment, well-being and Turnover Intention. The explanatory power of the model as assessed by structural equation modeling has shown that the model explained 42.1% of the variance in Turnover Intention. In addition, stressors were found to account for 81.4% of the variance in Job Dissatisfaction. The model also explained 89.0% of the variance in EC2O and 68.6% of Physical Well-being.

Further examination of the relative predictive strengths of the specific dimensions of occupational stressors on the outcome variables of the model (both direct and indirect effects) has demonstrated that within the context of the College, Work Relationship, Resources and Communication, and Pay and Benefits seem to have important effects on the outcome variables, including Job Dissatisfaction and Turnover Intention. Most of the relationships between variables were as proposed in the research hypotheses. However, a few anomalies were observed including the positive direct relationships Job Overload has with OC2E, Work Relationship has with EC2O and Physical Well-being, Resources and Communication has

with EC2O, as well as the positive mediated relationship Job Overload has with EC2O. In addition, statistically significant effect was not obtained between organizational commitment and employee's physical and psychological well-being.

In terms of demographic variables, male employees were found to show significantly higher scores of Work-Life Balance, Job Overload and Job Control while at the same time showing higher organizational commitment and lower scores of Turnover Intention than their female counterparts. In addition, Khat chewing and alcohol drinking were found to be associated with higher scores of occupational stressors, Job Dissatisfaction and Turnover Intention while, on the other hand, performing physical exercise was found to buffer the effects of occupational stressors including Job Dissatisfaction and well-being.

Additional interesting demographic differences were also found. For instance, employees that worked for over 20 years in general demonstrated the lowest scores of Job Dissatisfaction and Turnover Intention while at the same time exhibiting the highest scores of organizational commitments. Furthermore, it was found that unmarried employees exhibited higher scores of Job Dissatisfaction and Turnover Intention than their married counterparts. In terms of academic qualifications, those with PhD and Specialty certificates in general scored the least in terms of the different stressor dimensions and Job Dissatisfaction while those with Diploma and first degree tend to have the highest scores of these variables and correspondingly, the highest Turnover Intentions. Those with PhD also demonstrated the highest scores in terms of organizational commitment.

6.2. Recommendations

The current study explored the interrelationship among occupational stressors, Job Dissatisfaction, well-being, organizational commitment and Turnover Intention among employees of the CHS, AAU. Based on the results of the study, the following recommendations are proposed to improve the burden of occupational stress among employees of the College which in turn will decrease employee Job Dissatisfaction and Turnover Intention, and increase organizational commitment and well-being thereby improving organizational performance. First of all, it is proposed that among the various work

place stressors, focus should be given to Work Relationship, Resources and Communication, and Pay and Benefits. Second, of the different categories of staff, administrative and health professional staff seem to be the ones more afflicted by occupational stress. Accordingly, it is proposed that focus should be given to them. Moreover, of the different class of employees, the newly recruited and less qualified ones seem to be victims of occupational stress and its outcomes. Accordingly, due attention should be given to them.

According to Cooper and Cartwright (1997), there are three options that organizations can use to mitigate occupational stress. The *primary level interventions* are concerned with modifying or reducing sources of stress related to the work so as to reduce their negative impact on employees. The *secondary level interventions* focus on timely detection and management of workplace stress by enhancing the awareness and stress management skills of employees by way of training and education. The *tertiary level interventions* are aimed at rehabilitating, treating and counseling of employees that are already afflicted by ill health as a result of occupational stress. In line with these interventions, the following actions could be taken in the context of the College.

- Create a supportive environment in which employees would feel most welcome, engaged, and receive constructive feedback on their job performance.
- Improve the physical working environment of the college by equipping it with the required educational, research and biomedical diagnostic and therapeutic equipment and facilities.
- Improve the pay and benefits scheme of employees within the College, in particular, and of the higher education sector, in general.
- Create a participatory and engaging management style within the College so as to improve employees' sense of belongingness and perception that the organization actually cares about and values them.
- Provide trainings that help to develop the employees' physical and psychological resources against workplace stress including basic relaxation techniques, health promotion activities and lifestyle modifications.
- Improve employee counseling services within the College.

Finally, this study evaluated occupational stress among the different categories of employees of the CHS, AAU. The findings of this study are expected to provide important insights to stakeholders including the University/College managements to work towards curbing the issues of occupational stress within the College and the University at large. This study is also expected to serve as a useful benchmark against which large scale university-wide and nationwide quantitative as well as qualitative studies of occupational stress among employees of the higher education sector are performed to propose consequential solutions of national importance.

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APPENDIX

I. Questionnaire

A. English Version

Survey of Occupational Stress Among Employees of the College of Health Sciences, Addis Ababa University, Addis Ababa, Ethiopia

Dear Research Participant,

First of all, we would like to thank you very much for your willingness to lend us your valuable time to complete this research questionnaire. This research is being conducted by a postgraduate student of the College of Business and Economics, Addis Ababa University (AAU) who is also a staff member of the College of Health Sciences (CHS). The objective of this research is to investigate the extent, causes and consequences of occupational stress among academic and non-academic staff of the CHS, AAU. The questionnaire is administered to full-time employees of the College.

This questionnaire has six parts. The first part is about the biographical data of employees. The second part deals with your job and has additional questions regarding home-related and social-life related stressors. The third section deals with your attitude towards your organization. The fourth part deals with your health status. The fifth part is about your availability at your workplace and the last part deals with your intention to leave your job. By completing the survey and returning it to us, you are providing your consent for your data to be used in this research. Your participation is purely voluntary and the information you provide will be kept completely confidential. Your name will never be written and aggregate responses from different respondents will be analyzed.

Your honest response to the questions is of paramount importance for the successful completion of this research. You can have clarification for any doubt regarding the questions.

For additional information and clarification, please contact:
Dr. Anteneh Belete; E-mail: anteneh.belete@aau.edu.et; Cell-phone: +251-911-684826

Directions to fill-out the questionnaire:

- Since partially completed questionnaires will not be useful for this research purpose, please address ALL the questions.
- Please give your first and natural answer – don't dwell too long on each question except perhaps for some questions found in section 5.
- Answer the questions quickly and efficiently - it will take you about 15-20 minutes to complete.
- Please base your answers on how you have felt during the last three months unless a question tells you to do otherwise.

Part One: Biographical questionnaire

YOUR CURRENT JOB

1. Which category of staff do you belong to? ❑*Academic* ❑*Non-academic*

If you are non-academic staff, skip to question 2b.

2a. If academic staff, what is your academic rank?

❑*Technical Assistant* ❑*Graduate Assistant* ❑*Assistant Lecturer* ❑*Lecturer*
❑*Assistant Professor* ❑*Associate Professor* ❑*Full Professor*

If you are academic staff, skip to question 3.

2b. If non-academic staff, which unit do you work in?

❑ *Finance and Admin* ❑ *Human Resource* ❑ *Procurement* ❑ *ICT*
❑ *Health** ❑ *Clerical*** ❑ *Library* ❑*Other*_____

* Health refers to health professional employees of Tikur Anbessa Specialized Hospital that are non-academic including nurses, physicians, pharmacists, medical laboratory technologists, medical radiographic technologists etc.
** Clerical refers to academic support staff working as secretaries or in registrar's office

If you are not health professional, skip to question 3.

2c. If health professional working at Tikur Anbessa Specialized Hospital, what is your academic background?

❑ *Nursing* ❑ *Midwifery* ❑ *Pharmacy* ❑ *Medical Laboratory Science* ❑ *Anaesthesia*
❑ *Medical Radiographic Technology* ❑ *Medicine* ❑ *Physiotherapy* ❑*Other*_____

3. What is your year of service in the university?

❑*1-5 years* ❑*6-10 years* ❑*11-15 years* ❑*16-20 years* ❑*Over 20 years*

YOU AND YOUR FAMILY

4. Sex: ❑*Male* ❑*Female*

5. Age (years): ❑*18- 21* ❑*21 - 30* ❑*31 - 40* ❑*41 - 50* ❑*51 - 60* ❑*Over 60*

6. What is your religion? ❑ *Christian* ❑*Muslim* ❑*Atheist* ❑*Other* _____

7a. Marital status ❑*Married* ❑*Single* ❑*Divorced* ❑*Widowed*

7b. Are you satisfied with your current relationship/marriage/single status? ❑*Yes* ❑*No*

8a. Number of children aged 18 years or under?

❑*None* ❑1 ❑2 ❑3 ❑4 ❑5 ❑>5

8b. Number of dependants aged over 18 years?

❑*None* ❑1 ❑2 ❑3 ❑4 ❑5 ❑>5

YOUR EDUCATION & LIFESTYLE

9. Highest academic qualification achieved?

❑*Diploma* ❑*BA/BSc/BPharm* ❑*MA/MSc/MPH/MBA* ❑*PhD* ❑*MD/DVM/DDM*
❑*Specialty* ❑*Sub-specialty* ❑*Other, specify*: _____

10a. How frequently do you perform planned physical exercise?

❑*Always* ❑*Usually* ❑*When possible* ❑*Occasionally* ❑*Not usually* ❑*Never*

10b. How frequently do you perform 'ideal' physical exercise? (defined as 15-30 minutes of vigorous exercise 3 times a week)

❑*Always* ❑*Usually* ❑*Sometimes* ❑ *Not usually* ❑*Never*

11a. Do you smoke cigarettes? ❑*Yes* ❑*No*

If “No”, skip to question 12a.

11b. If yes, how many cigarettes per day do you smoke on average?

❑*1 - 5* ❑*6 - 10* ❑*11 - 20* ❑*21 – 30* ❑*31 - 40* ❑*More than 40*

12a. Do you on regular basis drink alcohol? ❑*Yes* ❑*No*

If “No”, skip to question 13a.

12b. If Yes, how many units do you drink per week on average? (1 unit = a bottle of beer, 1 small glass of wine or 1 measure of spirits)

❑*1 - 5* ❑*6 - 10* ❑*11 - 20* ❑*21 - 30* ❑*31 - 40* ❑*More than 40*

13a. Do you on regular basis chew Khat? ❑*Yes* ❑*No*

If “No”, skip to the next section.

13b. If Yes, how many rolls do you chew per week on average? (1 roll roughly weighs 400 grams)

❑*1 - 2* ❑*3 - 4* ❑*5 - 6* ❑*7 - 8* ❑*9 - 10* ❑*More than 10*

Part Two: Perceptions of your job

Cross one of the six categories from 'Strongly disagree' to 'Strongly agree' for each statement as it applies to you.

No.	**I am troubled that:**	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1.	I work longer hours than I choose or want to						
2.	I work unsociable hours e.g., weekends, shift work etc						
3.	I spend too much time travelling in my job						
4.	I have little control over many aspects of my job						
5.	My work interferes with my home and personal life						
6.	I may be doing the same job for the next 5 to 10 years						
7.	My physical working conditions are unpleasant (e.g., noisy, dirty, poorly designed)						
8.	My job involves the risk of actual physical violence						
9.	My boss behaves in an intimidating and bullying way towards me						
10.	My performance at work is closely monitored						
11.	I do not receive the support from others (boss/colleagues) that I would like						
12.	My job is insecure						
13.	My job is not permanent						
14.	My pay & benefits are not as good as other people doing the same or similar work						
15.	The technology in my job has overloaded me						
16.	My organization is constantly changing for change's sake						
17.	My work is dull and repetitive						
18.	I feel isolated at work e.g., working on my own or lack of social support from others						
19.	I am not sure what is expected of me by my boss						
20.	Other people at work are not pulling their weight (doing their fair share of work)						
21.	I am set unrealistic deadlines						
22.	I am given unmanageable workloads						
23.	My boss is forever finding fault with what I do						
24.	Others take the credit for what I have achieved						
25.	I have to deal with difficult customers/clients						
26.	My relationships with colleagues are poor						
27.	I do not feel I am informed about what is going on in this organization						
28.	I am never told if I am doing a good job						
29.	I am not involved in decisions affecting my job						
30.	I am not adequately trained to do many aspects of my job						
31.	I do not have the proper equipment or resources to do my job						
32.	I do not have enough time to do my job as well as I would like						
33.	My job is likely to change in the future						
34.	My job skills may become redundant in the near future						
35.	My ideas or suggestions about my job are not taken into account						
36.	I have little or no influence over my performance targets						
37.	I do not enjoy my job						

Part Three: Attitudes towards your organization

Cross one of the six categories from 'Strongly disagree' to 'Strongly agree' for each statement as it applies to you.

No.	Item	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1.	I feel valued and trusted by the organization						
2.	If necessary, I am prepared to put myself out for this organization e.g., working long hours and/ or unsociable hours						
3.	If asked, I am prepared to take on more responsibility or tasks not in my job description						
4.	I enjoy working for this organization to the extent that I am not actively seeking a job elsewhere						
5.	I am proud of this organization						
6.	Outside of my particular job, I take an interest in many aspects of the running and success of this organization						
7.	Overall, I am happy with my organization						
8.	I feel that it is worthwhile to work hard for this organization						
9.	I am committed to this organization						

Part Four: Your health

Over the last 3 months, have you experienced any of the following symptoms or changes in behavior? Please choose one of four options given.

No.	Item	Never	Rarely	Sometimes	Often
1.	Lack of appetite or over eating				
2.	Indigestion or heartburn				
3.	Insomnia - sleep loss				
4.	Headaches				
5.	Panic or anxiety attacks				
6.	Muscular tension / aches and pains				
7.	Feeling nauseous or being sick				
8.	Constant irritability				
9.	Difficulty in making decisions				
10.	Loss of sense of humor				
11.	Feeling or becoming angry with others too easily				
12.	Constant tiredness				
13.	Feeling unable to cope				
14.	Avoiding contact with other people				
15.	Mood swings				
16.	Unable to listen to other people				
17.	Having difficulty concentrating				

18. Have you had any serious illness(es) in the last 6 months? ❑*Yes* ❑*No*

19. How badly did the Covid-19 pandemic affect your health in the last 6 months?
❑*Significantly* ❑*Moderately* ❑*Slightly* ❑*Never*

20. Over the last 3 months, how would you rate your overall health?
❑*Good* ❑*Alright* ❑*Poor*

Part Five: Absenteeism and Presenteeism

1. About how many hours altogether did you work in the past 7 days? (If more than 97, enter 97.)
   ..... Number of hours (00-97)

2. How many hours does your employer expect you to work in a typical 7-day week? (If it varies, estimate the average. If more than 97, enter 97.)
   ..... Number of hours (00-97)

3. Now please think of your work experiences over the past 4 weeks (28 days). In the spaces provided below, write the number of days you spent in each of the following work situations.

In the past 4 weeks (28 days), how many days did you...	Number of days (00-28)
3a. ...miss an entire work day because of problems with your physical or mental health? (Please include only days missed for your own health, not someone else's health.)	.....
3b. ...miss an entire work day for any other reason (including vacation)?	.....
3c. ...miss part of a work day because of problems with your physical or mental health? (Please include only days missed for your own health, not someone else's health.)	.....
3d. ...miss part of a work day for any other reason (including vacation)?	.....
3e. ...come in early, go home late, or work on your day off?	.....

4. About how many hours altogether did you work in the past 4 weeks (28 days)? (See examples below.)
   ..... Number of hours in the past 4 weeks (28 days)

Examples for Calculating Hours Worked in the Past 4 Weeks
50 hours per week for 4 weeks = 200 hours
40 hours per week for 4 weeks = 160 hours
35 hours per week for 4 weeks = 140 hours
40 hours per week for 4 weeks with 2 8-hour days missed = 144 hours
40 hours per week for 4 weeks with 3 4-hour partial days missed = 148 hours
35 hours per week for 4 weeks with 2 8-hour days missed and 3 4-hour partial days missed = 112 hours

5. On a scale from 0 to 10 where 0 is the worst job performance anyone could have at your job and 10 is the performance of a top worker, how would you rate the usual performance of most workers in a job similar to yours?

Worst Performance										Top Performance
0	1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	○	○	○	○

6. Using the same 0-to-10 scale, how would you rate your usual job performance over the past year or two?

Worst Performance										Top Performance
0	1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	○	○	○	○

7. Using the same 0-to-10 scale, how would you rate your overall job performance on the days you worked during the past 4 weeks (28 days)?

Worst Performance										Top Performance
0	1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	○	○	○	○

Part Six: Turnover intention

Please read each question and indicate your response using the scale provided for each question:
During the past 9 months…..

1.	How often have you considered leaving your job?	**Never**	1-------2-------3-------4-------5	**Always**
2.	How satisfying is your job in fulfilling your personal needs?	**Very satisfying**	1-------2-------3-------4-------5	**Totally dissatisfying**
3.	How often are you frustrated when not given the opportunity at work to achieve your personal work-related goals?	**Never**	1-------2-------3-------4-------5	**Always**
4.	How often do you dream about getting another job that will better suit your personal needs?	**Never**	1-------2-------3-------4-------5	**Always**
5.	How likely are you to accept another job at the same compensation level should it be offered to you?	**Highly unlikely**	1-------2-------3-------4-------5	**Highly likely**
6.	How often do you look forward to another day at work?	**Always**	1-------2-------3-------4-------5	**Never**

Is there anything else you would like to add that has not come up already on the questionnaire? If yes, please state below.

_____

_____

When you have finished, please check through the questionnaire to ensure you have answered all the items.

We are very grateful once again for taking part in this survey and please be assured of your complete confidentiality and anonymity.

We wish you a blessed day!

B. Amharic Version

በአዲስ አበባ ዩኒቨርሲቲ፣ ጤና ሳይንስ ኮሌጅ ሠራተኞች ላይ የሚካሄድ የሥራ ጭንቀት ጥናት

አዲስ አበባ፣ ኢትዮጵያ

ውድ የጥናቱ ተሳታፊ፡
ውድ ጊዜዎትን ሰውተው ይህንን የምርምር መጠይቅ ለመሙላት ስለፈቀዱ በቅድሚያ በእጅጉ ልናመሰግንዎት እንወዳለን፡፡ ይህ ምርምር የሚካሄደው በአዲስ አበባ ዩኒቨርሲቲ የንግድ እና ኢኮኖሚክስ ኮሌጅ የድህረ-ምረቃ ተማሪ እንዲሁም የጤና ሳይንስ ኮሌጅ ሠራተኛ በሆኑ ግለሰብ ነው፡፡ የጥናቱ አላማ በጤና ሳይንስ ኮሌጅ ውስጥ በሚሰሩ አካዳሚክ እና አካዳሚክ ባልሆኑ ሠራተኞች ላይ ያለውን የሥራ ጭንቀት (occupational stress) መጠን፣ መንስዔዎቹ እና የሚያስከትለውን ጉዳቶች ለመፈተሽ ነው፡፡ መጠይቁ የሚሞላው በቋሚነት ተቀጥረው በኮሌጁ በሚሠሩ ሠራተኞች ነው፡፡

ይህ መጠይቅ ስድስት ክፍሎች አሉት፡፡ የመጀመሪያው ስለእርስዎ ግለሰባዊ መረጃዎችን ይጠይቃል፤ ሁለተኛው ስለሥራዎት እንዲሁም ተጓዳኝ የሆኑ የቤት ውስጥ ወይም የህብረተሰብ-ነክ የጭንቀት መንስዔዎችን ያነሳል፤ ሶስተኛው ክፍል ስለሥራዎት ያለዎትን እይታ ይፈትሻል፤ አራተኛው ክፍል ስለጤንነትዎ ይጠይቃል፤ አምስተኛው በስራ ገበታዎት ላይ ስለመገኘትዎ እንዲሁም የመጨረሻው ክፍል ደግሞ ሥራዎትን ስለመልቀቅ ያለዎትን አላማ ይመረምራል፡፡ ይህንን መጠይቅ ሞልተው ሲልኩልን የእርስዎ መረጃ ለዚህ ጥናት ግብአት ሆኖ እንዲያገለግል ፈቃደኝነትዎን መግለጽዎን እንረዳለን፡፡ እዚህ ጥናት ላይ የሚሳተፉት በሙሉ ፈቃደኝነት ሲሆን የሚሰጡን መረጃ በጥብቅ ሚስጥራዊነት የሚጠበቅ ይሆናል፡፡ ስምዎት በማንኛውም መልክ የማይጠቀስ እና የጥናቱም ውጤትም የሚቀርበው የበርካታ ተሳታፊዎችን መረጃ በአንድ ላይ በመዘገብ ይሆናል፡፡

በመጠይቁ ለሚቀርቡ ጥያቄዎች የእርስዎ ሃቀኛ መልስ ለጥናቱ በስኬት መጠናቀቅ በጣም ወሳኝ ነው፡፡ መጠይቁን ሲሞሉ ለሚገጥመዎት ብሥጉታ ማብራሪያ መጠየቅ ይችላሉ፡፡

ለተጨማሪ መረጃ እና ማብራሪያ - ዶ/ር አንተነህ በለጠ፤ ኢ-ሜል አድራሻ - anteneh.belete@aau.edu.et፤ የሞባይል ስልክ ቁጥር - +251-911-684826

መጠይቁን ሲሞሉ የሚከተሉዋቸው መመሪያዎች

- በከፊል የተሞሉ መጠይቆች ለዚህ ጥናት አላማ ጠቃሚ ስለማይሆኑ እባክዎትን ለሁሉም ጥያቄዎች መልስ ይስጡ፡፡
- እባክዎትን መጀመሪያ የሚመጣልዎትን እና ትክክለኛውን መልስ ይስጡ፤ በእያንዳንዱ ጥያቄ ላይ ብዙ በማሰብ አላስፈላጊ ጊዜ አያባክኑ፤ በክፍል አምስት የሚገኙት የተወሰኑ ጥያቄዎች ምናልባት ትንሽ ማሰብ ይፈልጋሉ፡፡
- ጥያቄዎቹን በፍጥነት እና በቀልጣፋነት ይሙሉ፤ በአማካኝ ከ15 እስከ 20 ደቂቃዎች ሊወስድቦት ይችላል፡፡
- መጠይቁ ሌላ ካልጠየቅዎት በስተቀር በተቻለ መጠን ባለፉት 3 ወራት ውስጥ የተሰማዎትን መሰረት አድርገው መልስ ይስጡ፡፡

ክፍል 1 - የግለሰባዊ መረጃዎች መጠይቅ
ስለሚሰሩት ሥራ በተመለከተ

1. በየትኛው የሥራ መደብ ውስጥ ይገኛሉ? ❑ አካዳሚክ/ መምህር ❑ አካዳሚክ ያልሆነ

የአካዳሚክ ሠራተኛ ካልሆኑ ወደ ጥያቄ 2ለ ይሻገሩ::

2ሀ. የአካዳሚክ ሠራተኛ ከሆኑ የአካዳሚክ ደረጃዎት የትኛው ነው?
❑ ቴክኒካል አሲስታንት ❑ ረዳት ምሩቅ ❑ ረዳት መምህር ❑ መምህር
❑ ረዳት ፕሮፌሰር ❑ ተባባሪ ፕሮፌሰር ❑ ሙሉ ፕሮፌሰር

የአካዳሚክ ሠራተኛ ከሆኑ ወደ ጥያቄ 3 ይሻገሩ::

2ለ. የአካዳሚክ ሠራተኛ ካልሆኑ የትኛው የሥራ ክፍል ውስጥ ይገኛሉ?
❑ ፋይናንስ እና አስተዳደር ❑ የሠው ሃብት ❑ ግዢ ❑ አይ.ሲ.ቲ
❑ ጤና* ❑ ፀሃፊ/ሬጂስትራር** ❑ ላይብረሪ ❑ ሌላ _____

* ጤና የሚለው በጥቁር አንበሳ ስፔሻላይዝድ ሆስፒታል የሚሰሩ የጤና ባለሙያዎችን ያቅፋል::
** በፀሃፊነት ወይም በሬጂስትራር ሥራተኛነት የሚያገለግሉትን ያቅፋል::

የጤና ባለሙያ ካልሆኑ ወደ ጥያቄ 3 ይሻገሩ::

2ሐ. በጥቁር አንበሳ ስፔሻላይዝድ ሆስፒታል የሚሰሩ የጤና ባለሙያ ከሆኑ የትምህርት ስልጠናዎት በየትኛው መስክ ነው?
❑ ነርስ ❑ አዋለጅ ነርስ ❑ ፋርማሲ ❑ የህክምና ላብራቶሪ ሳይንስ ❑ አንስቴዚያ
❑ የህክምና ራዲዮግራፊ ቴክኖሎጂ ❑ ህክምና ❑ ፊዚዮቴራፒ ❑ሌላ _____

3. የአገልግሎት ዘመንዎ በዩኒቨርሲቲው ውስጥ ምን ያህል ነው?
❑ 1-5 ዓመት ❑ 6-10 ዓመት ❑ 11-15 ዓመት ❑ 16-20 ዓመት ❑ ከ20 ዓመት በላይ

እርስዎን እና ቤተሰብዎን በተመለከተ

4. ፆታ ❑ ወንድ ❑ ሴት

5. እድሜ (ዓመት) ❑ 18-21 ❑ 21-30 ❑ 31-40 ❑ 41-50 ❑ 51-60 ❑ ከ60 በላይ

6. እምነትዎ? ❑ ክርስትና ❑ እስልምና ❑ እምነት የሌለው ❑ ሌላ _____

7ሀ. የጋብቻ ሁኔታዎት? ❑ ያገባ(ች) ❑ ያላገባ(ች) ❑ የፈታ(ች) ❑ ባለቤት የሞተበት(ባት)

7ለ. አሁን ባሉበት ግንኙነት/ትዳር/ላጤነት ደስተኛ ነዎት? ❑ አዎ ❑ አይደለሁም

8ሀ. ከ18 ዓመት በታች የሆኑ ልጆችዎ ብዛት ምን ያህል ነው?
❑ የለም ❑ 1 ❑ 2 ❑ 3 ❑ 4 ❑ 5 ❑ >5

8ለ. ከ18 ዓመት በላይ የሆኑ በእርስዎ ስር የሚተዳደሩ ልጆች/ሰዎች ብዛት ምን ያህል ነው?
❑ የለም ❑ 1 ❑ 2 ❑ 3 ❑ 4 ❑ 5 ❑ >5

የትምህርት ደረጃዎን እና የህይወት ዘይቤን በተመለከተ

9. ከፍተኛ የትምህርት ደረጃዎት ምንድን ነው?
❑ ዲፕሎማ ❑ ባችለር ዲግሪ ❑ ማስተርስ ዲግሪ ❑ ፒ.ኤ.ዲ ዲግሪ ❑ የህክምና/የጥርስ/የእንስሳት ዶክትሬት
❑ ስፔሻሊቲ ሰርተፊኬት ❑ ሰብ-ስፔሻሊቲ ሰርተፊኬት ❑ ሌላ፣ ይግለፁት - _____

10ሀ. መደበኛ የአካል ብቃት እንቅስቃሴ ምን ያህል ያደርጋሉ?
❑ ሁል ጊዜ ❑ በብዛት ❑ በተመጣኝ ጊዜ ❑ አልፎ አልፎ ❑ በጣም ተራርቆ ❑ በጭራሽ

ነ0ለ. ትክክለኛ የሚባል የአካል ብቃት እንቅስቃሴ ምን ያህል ያደርጋሉ? (ማለትም ከነ5-30 ደቂቃ የሚቆይ ከበድ ያለ የአካል ብቃት እንቅስቃሴ በሳምንት 3 ቀናት ይሰራሉ?)

❑ ሁል ጊዜ ❑ በብዛት ❑ አልፎ አልፎ ❑ በጣም ተራርቆ ❑ በጭራሽ

ነነሀ. ሲጋራ ያጨሳሉ? ❑ አዎ ❑ አይ

'አይ' ከሆነ መልስዎ ወደ ጥያቄ ነ2ሀ ይሻገሩ።።

ነነለ. ካጨሱ በአማካኝ በቀን ውስጥ ምን ያህል ሲጋራ ያጨሳሉ?

❑ ነ - 5 ❑ 6 - ነ0 ❑ ነነ - 20 ❑ 2ነ - 30 ❑ 3ነ - 40 ❑ ከ40 በላይ

ነ2ሀ. የአልኮል መጠጥ በመደበኛነት ይጠጣሉ? ❑ አዎ ❑ አይ

'አይ' ከሆነ መልስዎ ወደ ጥያቄ ነ3ሀ ይሻገሩ።።

ነ2ለ. አልኮል መጠጥ ከጠጡ በአማካኝ በሳምንት ምን ያህል መለኪያ ይጠጣሉ? (አንድ መለኪያ ሲባል አንድ ጠርሙስ ቢራ ወይም አንድ ብርጭቆ ወይን ጠጅ ወይም አንድ መለኪያ አረቄ፣ ውስኪ ወይም መሰል ጠንካራ መጠጥን ይወክላል።።)

❑ ነ-5 ❑ 6 - ነ0 ❑ ነነ - 20 ❑ 2ነ - 30 ❑ 3ነ - 40 ❑ ከ40 በላይ

ነ3ሀ. ጫት በመደበኛነት ይቅማሉ? ❑ አዎ ❑ አይ

'አይ' ከሆነ መልስዎ ወደ ሚቀጥለው ንዑስ ክፍል ይሻገሩ።።

ነ3ለ. ጫት ኪቃሙ በአማካኝ በሳምንት ምን ያህል ጥቅል ይቅማሉ? (አንድ ጥቅል በግምት 400 ግራም ይሆናል።።)

❑ ነ - 2 ❑ 3 - 4 ❑ 5 - 6 ❑ 7 - 8 ❑ 9 - ነ0 ❑ ከነ0 በላይ

ክፍል 2 - ስለሥራዎ ያለዎት ግንዛቤ

ከ ‘ጠንካራ ተቃውሞ’ እስከ ‘ጠንካራ ስምምነት’ ካሉት ስድስት ምርጫዎች መካከል እርስዎን ይገልጻል ብለው የሚያስቡት አንዱ ላይ ምልክት ያድርጉ፡፡

ቁጥር	የሚከተለው ያሳስበኛል፡፡	በጣም አልስማማም	አልስማማም	በመጠኑ አልስማማም	በመጠኑ እስማማለሁ	እስማማለሁ	በጣም እስማማለሁ
1.	በሥራ የማሳልፈው ጊዜ ከምፈልገው በላይ ነው፡፡						
2.	ከሥራ ሰዓት ውጪ ባሉ ጊዜዎች ሥራ በመስራት አሳልፋለሁ፡፡ ለምሳሌ በአረፍት ቀናት፣ በሺፍት ሥራ ወዘተ.						
3.	ለሥራ ጉዳይ በማደርገው ጉዞ በጣም ብዙ ጊዜ አጠፋለሁ፡፡						
4.	ሥራዬን በተመለከተ ለማደርጋቸው ነገሮች ውስን ቁጥጥር ነው ያለኝ፡፡						
5.	ሥራዬ በቤተሰቤ እና በግል ህይወቴ ጣልቃ ይገባል፡፡						
6.	ለሚቀጥሉት 5 እስከ 10 ዓመታት ተመሳሳይ ሥራ የምሰራ ይመስላል፡፡						
7.	የሥራ ቦታዬ ደስ የማይል ነው (ለምሳሌ የድምጽ ረብሻ አለው፣ ንጽህና ይጎድለዋል፣ ጥሩ ዲዛይን የለውም)፡፡						
8.	ሥራዬ የአካል ጉዳት አደጋ ሊያደርስ የሚችልበት ስጋት አለው፡፡						
9.	አለቃዬ የማስፈራራት እና የጉልቤኛነት ባህሪ እኔ ላይ ያሳያሉ፡፡						
10.	የሥራ አፈጻጸሜ በቅርበት ይፈተሻል፡፡						
11.	ከባልደረቦቼ ወይም ከአለቃዬ የምፈልገውን ድጋፍ አላገኝም፡፡						
12.	ሥራዬ ላይ መቆየቴ አስተማማኝ አይደለም፡፡						
13.	ሥራዬ ቋሚ አይደለም፡፡						
14.	ደሞዜ እና የማገኘው ጥቅማጥቅም ተመሳሳይ/ተቀራራቢ ስራ ከሚሰሩ የሙያ አጋሮቼ ያነሰ ነው፡፡						
15.	ሥራዬ ውስጥ ያለው የቴክኖሎጂ አጠቃቀም ከመጠን በላይ ጫና እየፈጠረብኝ ነው፡፡						
16.	መስሪያ ቤቴ ፋይዳ በሌለው ተከታታይ የለውጥ ሂደት ውስጥ ይገኛል፡፡						
17.	ሥራዬ አሰልቺ እና ድግግሞሽ ያለው ነው፡፡						
18.	በሥራ ቦታ የተገለልኩ እንደሆነ ይሰማኛል፡፡ ለምሳሌ ለብቻዬ እሰራለሁ፣ ከሌሎችም ምንም አይነት ድጋፍ አላገኝም፡፡						
19.	አለቃዬ ከእኔ ምን እንደሚጠብቁ እርግጠኛ አይደለሁም፡፡						
20.	የሥራ ባልደረቦቼ የሚገባቸውን ያህል በሥራቸው ላይ አይጥሩም፡፡						
21.	ከእውነታው የራቀ/የማይተገበር የሥራ ማጠናቀቂያ ቀጠሮ ይሰጠኛል፡፡						
22.	ልሰራው ከምችለው በላይ የሆነ የሥራ ጫና ይሰጠኛል፡፡						
23.	አለቃዬ በምሠራው ሥራ ላይ ሁል ጊዜ አቃቂር/ስህተት ያወጣሉ፡፡						
24.	በምሠራው ሥራ የሚገኙ ውጤቶችን ሌሎች ይመሰገኑባቸዋል፡፡						
25.	አስቸጋሪ ከሆኑ ደንበኞች ጋር እገናኛለሁ፡፡						
26.	ከሥራ ባልደረቦቼ ጋር ያለኝ ግንኙነት ደካማ ነው፡፡						
27.	መስሪያ ቤቴ ውስጥ እየተካሄደ ያለውን ነገር በተመለከተ መረጃ እንደማይደርሰኝ ይሰማኛል፡፡						
28.	ጥሩ ሥራ እየሰራሁ እንደሆነ የሚገልጽ ግብረመልስ አይሰጠኝም፡፡						
29.	ሥራዬ ላይ ተጽዕኖ ሊፈጥሩ በሚችሉ ጉዳዮች ውሳኔ ላይ አልሳተፍም፡፡						
30.	ለምሠራው ሥራ በቂ ስልጠና አልተሰጠኝም፡፡						
31.	ለምሠራው ሥራ አግባብነት ያለው መሳሪያዎች እና ግብአቶችን አላገኝም፡፡						
32.	የምሠራውን ሥራ በምፈልገው አግባብ ለመሥራት በቂ ጊዜ አላገኝም፡፡						
33.	ሥራዬ ወደፊት የሚቀየር ይመስለኛል፡፡						
34.	የሥራ ክህሎቴ በቅርብ ጊዜ ከአገልግሎት ውጪ የሚሆን ይመስለኛል፡፡						
35.	ስለሥራዬ ያሉኝ ሃሳቦች እና አስተያየቶች ከግምት አይወሰዱም፡፡						
36.	ለሥራዬ የአፈጻጸም ግቦች በጣም ትንሽ (ወይም ምንም) ተጽዕኖ አለኝ፡፡						
37.	ሥራዬ አያስደስተኝም፡፡						

ክፍል 3 - ለመሥሪያ ቤትዎ ያለዎት አመለካከት

ከ ‘ጠንካራ ተቃውሞ’ እስከ ‘ጠንካራ ስምምነት’ ካሉት ስድስት ምርጫዎች መካከል እርስዎን ይገልጻል ብለው የሚያስቡት አንዱ ላይ ምልክት ያድርጉ፡፡

ቁጥር	ዝርዝር	በጣም አልስማማም	አልስማማም	በመጠኑ አልስማማም	በመጠኑ እስማማለሁ	እስማማለሁ	በጣም እስማማለሁ
1.	በዚህ መሥሪያ ቤት ውስጥ ዋጋ የተሰጠኝ እና የታመንኩ እንደሆንኩ ይሰማኛል፡፡						
2.	ካስፈለገ ለዚህ መሥሪያ ቤት አስፈላጊውን ዋጋ ለመክፈል ፈቃደኛ ነኝ፡፡ ለምሳሌ ረጅም ሰዓት መሥራት፣ በዕረፍት ሰዓት መሥራት						
3.	ካስፈለገ ለዚህ መሥሪያ ቤት ከሥራ ድርሻዬ ውጪ ተጨማሪ ሃላፊነቶችን ለመውሰድ ፈቅደኛ ነኝ፡፡						
4.	እዚህ መሥሪያ ቤት መሥራት ስለሚያስደስተኝ ሌላ ሥራ በመፈለግ ላይ አይደለሁም፡፡						
5.	በዚህ መሥሪያ ቤት ኩራት ይሰማኛል፡፡						
6.	ከሥራ ድርሻዬ ውጪ በዚህ መሥሪያ ቤት የሥራ እንቅስቃሴ እና ስኬት ፍላጎት አሳያለሁ፡፡						
7.	በአጠቃላይ በመሥሪያ ቤቴ ደስተኛ ነኝ፡፡						
8.	ለዚህ መሥሪያ ቤት በታታሪነት ማገልገል መልሶ ይከፍላል ብዬ አምናለሁ፡፡						
9.	ለዚህ መሥሪያ ቤት ታማኝ አገልጋይ ነኝ፡፡						

ክፍል 4 - ስለጤንነትዎ

ባለፉት ሶስት ወራት ውስጥ የሚከተሉትን ምልክቶች ወይም የባህሪ ለውጦች ምን ያህል አሳይተዋል? ከተሰጡት አራት ምርጫዎች አንዱን ይምረጡ፡፡

ቁጥር	ዝርዝር	በጭራሽ	አልፎ አልፎ	አንድአንድ ጊዜ	ብዙውን ጊዜ
1.	የምግብ ፍላጎት መቀነስ ወይም መጨመር				
2.	ምግብ አለመፈጨት ወይም የማቃር ስሜት				
3.	እንቅልፍ ማጣት				
4.	ራስ ምታት				
5.	መደንገጥ/መሸበር ወይም ጭንቀት				
6.	የጡንቻ ውጥረት/ህመም				
7.	ማቅለሽለሽ ወይም የህመም ስሜት				
8.	በትንሽ ነገር መበሳጨት				
9.	ለውሳኔ መወላወል				
10.	የቀልድ ለዛ ማጣት				
11.	በቀላሉ መበሳጨት ወይም የብስጭት ስሜት መሰማት				
12.	የማያቋርጥ ድካም				
13.	የሥራ ጫናን የመቋቋም አቅም ማጣት				
14.	ሰዎችን መሸሽ/መራቅ				
15.	የስሜት/መንፈስ መለዋወጥ				
16.	የሌሎችን ሃሳብ/ምክር አለመስማት				
17.	ሃሳብ ለመሰብሰብ/ትኩረት ለማድረግ መቸገር				

18. በባለፉት 6 ወራት ውስጥ ጠንከር ያለ የጤና ቀውስ ገጥሞት ነበር? ❑ አዎ ❑ አይ

19. በባለፉት 6 ወራት ውስጥ የኮሮና ወረርሽኝ በጤናዎት ላይ ምን ያህል ተጽዕኖ ፈጥሮብዎት ነበር?
❑ በጉልህ ❑ በመጠኑ ❑ በትንሹ ❑ በጭራሽ

20. በባለፉት 3 ወራት ውስጥ የነበርዎትን አጠቃላይ የጤና ሁኔታ እንዴት ይገመግሙታል?
❑ ጥሩ ❑ ደህና ❑ ደካማ

ክፍል 5 - ከሥራ መቅረት እና መገኘት

8. በአጠቃላይ በባለፉት 7 ቀናት ውስጥ ሥራዎትን በመሥራት ምን ያህል ሰዓት አሳልፈዋል? (ከ97 ሰዓት በላይ ከሆነ 97 ብለው ይሙሉ።)

   ..... ሰዓት (00-97)

9. ቀጣሪዎ በ7 ቀን ውስጥ ምን ያህል ሰዓት እንዲሠሩ ይጠብቃል? (ከጊዜ ጊዜ የሚለያይ ከሆነ አማካዩን ይገምቱ፤ ከ97 ሰዓት በላይ ከሆነ 97 ብለው ይሙሉ።)

   ..... ሰዓት (00-97)

10. እባክዎትን አሁን ላለፉት 4 ሳምንታት (28 ቀናት) የነበርዎትን የሥራ ቆይታ ያስቡ፡፡ ከዚህ በታች በተሰጡት ክፍት ቦታዎች ምን ያህል ቀናት በእያንዳንዱ የሥራ ሁኔታ ውስጥ እንዳሳለፉ ይጻፉ፡፡

ባለፉት 4 ሳምንታት (28 ቀናት) ምን ያህል ቀናት...	ቀናት (00-28)
3ሀ. ...በአካላዊ ወይም በስነ-አዕምሮ ጤና እክል ምክንያት ሙሉ የሥራ ቀን ቀርተዋል? (እባክዎትን በሌላ ሰው ሳይሆን በራስዎ ጤና ምክንያት የቀሩትን ቀን ይጥቀሱ።)	.....
3ለ. ...በሌላ ምክንያት ሙሉ የሥራ ቀን ቀርተዋል (ሽርሽርን ጨምሮ)?	.....
3ሐ. ...በአካላዊ ወይም በስነ-አዕምሮ ጤና እክል ምክንያት ከፊል የሥራ ቀን ቀርተዋል? (እባክዎትን በሌላ ሰው ሳይሆን በራስዎ ጤና ምክንያት የቀሩትን ቀን ይጥቀሱ።)	.....
3መ. ... በሌላ ምክንያት ከፊል የሥራ ቀን ቀርተዋል (ሽርሽርን ጨምሮ)?	.....
3ሠ. ...ከሥራ ሰዓት በፊት ጉበተዋል፣ ከሥራ ሰዓት በኋላ አርፍደው ወጥተዋል፣ ወይም በእረፍት ቀንዎ ሥራ ጉበተዋል/ሰርተዋል?	.....

11. በአጠቃላይ ባለፉት 4 ሳምንታት (28 ቀናት) ሥራዎትን በመሥራት ምን ያህል ሰዓት አሳልፈዋል? (ከታች የተሰጡትን ምሳሌዎች ይመልከቱ፡፡)

    ..... ሰዓት ባለፉት 4 ሳምንታት (28 ቀናት)

ባለፉት 4 ሳምንታት ሥራ የተሠራባቸው ሰዓታት ቀመር ምሳሌ

50 ሰዓት በሳምንት ለ4 ሳምንታት = 200 ሰዓት
40 ሰዓት በሳምንት ለ4 ሳምንታት = 160 ሰዓት
35 ሰዓት በሳምንት ለ4 ሳምንታት = 140 ሰዓት
40 ሰዓት በሳምንት ለ4 ሳምንታት ከ2 የ8 ሰዓት ሙሉ የሥራ ቀናት ቀሪ ጋር = 144 ሰዓት
40 ሰዓት በሳምንት ለ4 ሳምንታት ከ3 የ4 ሰዓት ከፊል የሥራ ቀናት ቀሪ ጋር = 148 ሰዓት
35 ሰዓት በሳምንት ለ4 ሳምንታት ከ2 የ8 ሰዓት ሙሉ የሥራ ቀናት እና ከ3 የ4 ሰዓት ከፊል የሥራ ቀናት ቀሪ ጋር = 112 ሰዓት

12. ከ0 እስከ 10 ባለ መለኪያ 0 በጣም ዝቅተኛ የሆነ የሥራ አፈጻጸም እንዲሁም 10 ደግሞ በጣም ከፍተኛ የሥራ አፈጻጸም ሆነው ከእርሶ ጋር ተመሳሳይ ሥራ የሚሠሩ አብዛኛው ሠራተኞችን የሥራ አፈጻጸም እንዴት ይመዝኑታል?

በጣም ዝቅተኛ አፈጻጸም										በጣም ከፍተኛ አፈጻጸም
0	1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	○	○	○	○

13. ተመሳሳይ ከ0 እስከ 10 ያለውን መለኪያ ተጠቅመው ባለፈው 1 ወይም 2 ዓመት የነበርዎትን የሥራ አፈጻጸም እንዴት ይመዝኑታል?

በጣም ዝቅተኛ አፈጻጸም										በጣም ከፍተኛ አፈጻጸም
0	1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	○	○	○	○

14. ተመሳሳይ ከ0 እስከ 10 ያለውን መለኪያ ተጠቅመው ባለፉት 4 ሳምንታት (28 ቀናት) ሥራዎን በሠሩባቸው ቀናት የነበርዎትን የሥራ አፈጻጸም እንዴት ይመዝኑታል?

በጣም ዝቅተኛ አፈጻጸም										በጣም ከፍተኛ አፈጻጸም
0	1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	○	○	○	○

ክፍል 6 - ሥራዎትን የመልቀቅ ዓለማ

እባክዎትን ከታች የቀረቡትን እያንዳንዱን ጥያቄ በማንበብ ለእያንዳንዱ ጥያቄ በተሰጠው መለኪያ መሠረት መልስዎትን ይስጡ፡፡
ባለፉት 9 ወራት....

1.	ምን ያህል ሥራዎን ለመልቀቅ አስበዎል?	**በጭራሽ**	1-------2-------3-------4-------5	**ሁል ጊዜ**
2.	ሥራዎ የግል ፍላጎትዎን ከማሟላት አንጻር ምን ያህል አመርቂ ነው?	**በጣም አመርቂ**	1-------2-------3-------4-------5	**ፈጽሞ የማያስደስት**
3.	ከሥራ ጋር የተገናኙ የግል ግቦችዎትን ለማሳካት እድል ባለማግኘትዎ ምን ያህል ጊዜ ተበሳጭተዋል?	**በጭራሽ**	1-------2-------3-------4-------5	**ሁል ጊዜ**
4.	ምን ያህል ጊዜ የእርስዎን የግል ፍላጎት የሚያሟላ ሌላ ሥራ ስለማግኘት አልመዋል?	**በጭራሽ**	1-------2-------3-------4-------5	**ሁል ጊዜ**
5.	ተመሳሳይ ጥቅማጥቅሞች ያለው ሌላ ሥራ ቢያገኙ እድሉን የመቀበል ሁኔታዎት ምን ያህል ነው?	**በጣም ዝቅተኛ**	1-------2-------3-------4-------5	**በጣም ከፍተኛ**
6.	ቀጣይ የሥራ ቀናትን ምን ያህል በጉጉት ይጠብቃሉ?	**ሁል ጊዜ**	1-------2-------3-------4-------5	**በጭራሽ**

በመጠይቁ ያልተነሳ በተጨማሪ ሊነግሩን የሚፈልጉት ማንኛውም ጉዳይ ይኖር ይሆን? አዎ ከሆነ እባክዎትን ከታች ይግለጹት፡፡

_____

_____

ሲጨርሱ ሁሉንም ጥያቄዎች መመለስዎትን ለማረጋገጥ እባክዎትን መጠይቁን ይፈትሹ፡፡

እዚህ ጥናት ላይ በመሳተፍዎ እንደገና ታላቅ ምስጋናችንን እየገለጽን ማንነትዎ እንዲሁም መረጃዎ በጥብቅ ምስጢራዊነት እንደሚጠበቁ ለመግለጽ እንወዳለን፡፡

የተባረከ ቀን እንዲሆንልዎ እንመኛለን!

II. Frequency Tables of Missing Values

Part Two: Perceptions of Your Work

No.	I am troubled that:	Valid	Missing
1.	I work longer hours than I choose or want to	811	3
2.	I work unsociable hours e.g. weekends, shift work etc	814	0
3.	I spend too much time travelling in my job	813	1
4.	I have little control over many aspects of my job	810	4
5.	My work interferes with my home and personal life	812	2
6.	I may be doing the same job for the next 5 to 10 years	811	3
7.	My physical working conditions are unpleasant (e.g. noisy, dirty, poorly designed	814	0
8.	My job involves the risk of actual physical violence	812	2
9.	My boss behaves in an intimidating and bullying way towards me	811	3
10.	My performance at work is closely monitored	812	2
11.	I do not receive the support from others (boss/colleagues) that I would like	807	7
12.	My job is insecure	813	1
13.	My job is not permanent	811	3
14.	My pay & benefits are not as good as other people doing the same or similar work	812	2
15.	The technology in my job has overloaded me	812	2
16.	My organization is constantly changing for change's sake	810	4
17.	My work is dull and repetitive	809	5
18.	I feel isolated at work e.g. working on my own or lack of social support from others	810	4
19.	I am not sure what is expected of me by my boss	810	4
20.	Other people at work are not pulling their weight (doing their fair share of work)	811	3
21.	I am set unrealistic deadline	808	6
22.	I am given unmanageable workloads	809	5
23.	My boss is forever finding fault with what I do	811	3
24.	Others take the credit for what I have achieved	810	4
25.	I have to deal with difficult customers/clients	809	5
26.	My relationships with colleagues are poor	811	3
27.	I do not feel I am informed about what is going on in this organization	812	2
28.	I am never told if I am doing a good job	811	3
29.	I am not involved in decisions affecting my job	811	3
30.	I am not adequately trained to do many aspects of my job	812	2
31.	I do not have the proper equipment or resources to do my job	809	5
32.	I do not have enough time to do my job as well as I would like	810	4
33.	My job is likely to change in the future	811	3
34.	My job skills may become redundant in the near future	810	4
35.	My ideas or suggestions about my job are not taken into account	808	6
36.	I have little or no influence over my performance targets	808	6
37.	I do not enjoy my job	811	3

Part Three: Attitudes Towards Your Organization

No.	Item	Valid	Missing
1.	I feel valued and trusted by the organization	812	2
2.	If necessary, I am prepared to put myself out for this organization e.g., working long hours and/ or unsociable Hours	813	1
3.	If asked, I am prepared to take on more responsibility or tasks not in my job description	812	2
4.	I enjoy working for this organization to the extent that I am not actively seeking a job elsewhere	811	3
5.	I am proud of this organization	812	2
6.	Outside of my particular job, I take an interest in many aspects of the running and success of this organization	810	4
7.	Overall, I am happy with my organization	811	3
8.	I feel that it is worthwhile to work hard for this organization	810	4
9.	I am committed to this organization	812	2

Part Four: Your Health

No.	Item	Valid	Missing
1.	Lack of appetite or over eating	814	0
2.	Indigestion or heartburn	814	0
3.	Insomnia - sleep loss	814	0
4.	Headaches	814	0
5.	Panic or anxiety attacks	813	1
6.	Muscular tension / aches and pains	813	1
7.	Feeling nauseous or being sick	812	2
8.	Constant irritability	814	0
9.	Difficulty in making decisions	813	1
10.	Loss of sense of humor	811	3
11.	Feeling or becoming angry with others too easily	810	4
12.	Constant tiredness	812	2
13.	Feeling unable to cope	813	1
14.	Avoiding contact with other people	812	2
15.	Mood swings	812	2
16.	Unable to listen to other people	812	2
17.	Having difficulty concentrating	813	1

Part Five: Absenteeism and Presenteeism

No.	Items	Valid	Missing
1.	About how many hours altogether did you work in the past 7 days?	708	106
2.	How many hours does your employer expect you to work in a typical 7-day week?	703	111
3.	In the past 4 weeks (28 days), how many days did you miss an entire work day because of problems with your physical or mental health? (Please include only days missed for your own health, not someone else's health.)	789	25
4.	In the past 4 weeks (28 days), how many days did you miss an entire work day for any other reason (including vacation)?	793	21
5.	In the past 4 weeks (28 days), how many days did you miss part of a work day because of problems with your physical or mental health? (Please include only days missed for your own health, not someone else's health.)	790	24
6.	In the past 4 weeks (28 days), how many days did you miss part of a work day for any other reason (including vacation)?	792	22
7.	In the past 4 weeks (28 days), how many days did you come in early, go home late, or work on your day off?	789	25
8.	About how many hours altogether did you work in the past 4 weeks (28 days)?	538	276
9.	On a scale from 0 to 10 where 0 is the worst job performance anyone could have at your job and 10 is the performance of a top worker, how would you rate the usual performance of most workers in a job similar to yours?	811	3
10.	Using the same 0-to-10 scale, how would you rate your usual job performance over the past year or two?	812	2
11.	Using the same 0-to-10 scale, how would you rate your overall job performance on the days you worked during the past 4 weeks (28 days)?	812	2

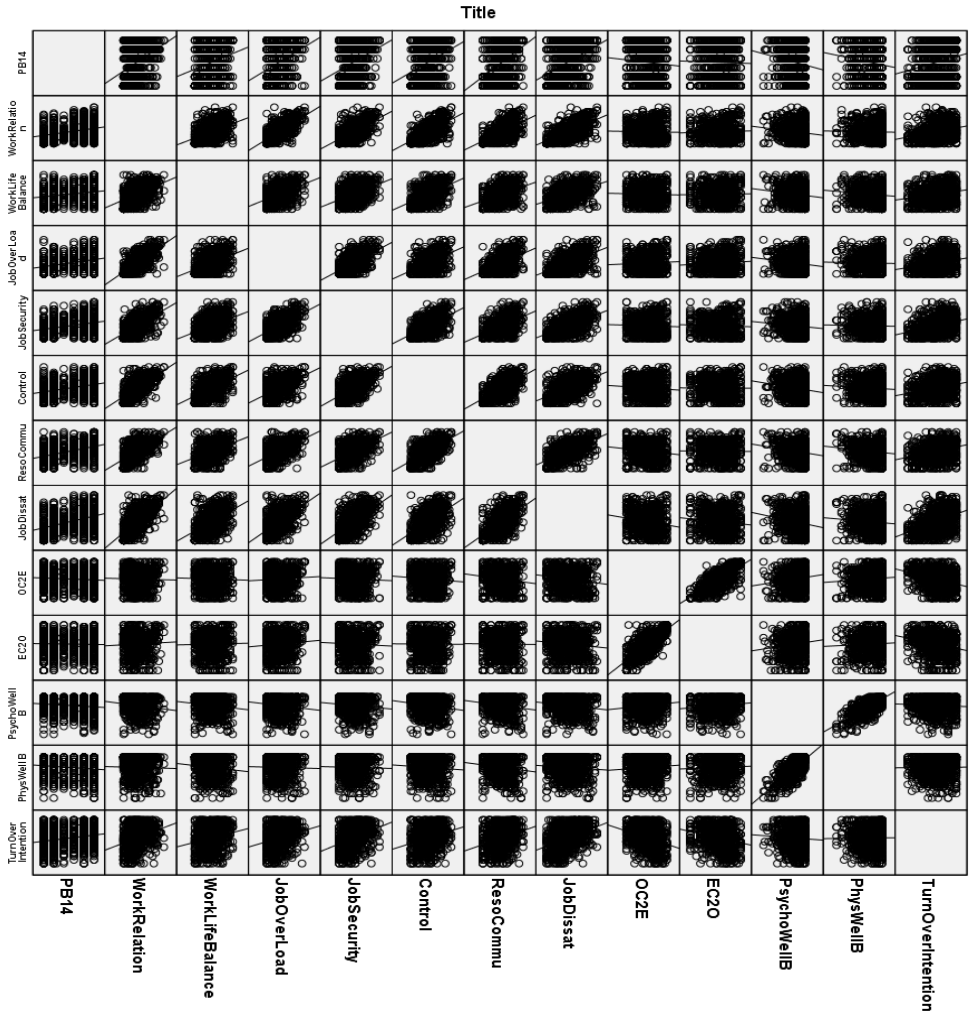
Part Six: Turnover Intention

No.	During the past 9 months,	Valid	Missing
1.	How often have you considered leaving your job?	811	3
2.	How satisfying is your job in fulfilling your personal needs?	814	0
3.	How often are you frustrated when not given the opportunity at work to achieve your personal work-related goals?	814	0
4.	How often do you dream about getting another job that will better suit your personal needs?	813	1
5.	How likely are you to accept another job at the same compensation level should it be offered to you?	814	0
6.	How often do you look forward to another day at work?	814	0

III. Assumptions Tests

I) Linearity:

Linearity was tested using scatter matrix in the SPSS.



The assumption of linearity appears to be satisfied because these plots do not show any obvious evidence of non-linearity.

II) Multicollinearity:

The simplest way to test multicollinearity is to run Correlation and to check the strength of the correlations among the dependent variables. Correlations upwards of .80 or .90 are reason for concern. If any of these are found, removing one of the strongly correlated pairs of variables is suggested. In the present study, no pair of correlation reached .80. Thus, multicollinearity is not a concern.

III) Univariate Normality

	N	Mean	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Work Relation	814	20.9617	.713	.086	.006	.171
Work-Life Balance	814	9.4936	.122	.086	-.672	.171
Job Overload	814	7.7986	.661	.086	-.323	.171
Job Security	814	10.9330	.503	.086	-.241	.171
Job Control	814	12.4147	.176	.086	-.675	.171
Resources and Communication	814	13.4025	-.144	.086	-.617	.171
Job Dissat	814	15.3361	.251	.086	-.687	.171
OC2E	814	14.5630	-.326	.086	-.728	.171
EC2O	814	19.4880	-.514	.086	-.278	.171
Psycho Well-being	814	36.3289	-.967	.086	.587	.171
Phys Well-being	814	19.4753	-.794	.086	-.080	.171
Turnover Intention	814	19.9847	-.298	.086	-.585	.171
PB14	814	3.59	-.063	.086	-1.540	.171
Valid N (listwise)	814					

Most values are between 1 and -1 indicating tolerable deviation from normality.

IV) Multivariate Normality

Although Mahalanobis d-squared did not reveal troublesome outliers, for structural models (Figures 4.1 and 4.2) and CFA models, AMOS results for the normalized approximations of multivariate kurtosis exceeded the critical value (i.e., 5), indicating the presence of multivariate nonnormality in the data. This was worrisome because departures from normality (i.e., from a critical value of 5) for the models in the present study were high (e.g., critical values for the latent variable structural model = 112.563; manifest variable structural model = 17.376).

One of the techniques of addressing multivariate nonnormal data is bootstrapping. Bootstrapping is method of resampling that treats the original sample as a population and randomly draw subsamples from this population with replacement. A bootstrap sample of 1000 was used in the present study.

IV. Confirmatory Factor Analysis

Part 2: Perceptions of Your Work

JOB STRESSORS (STRS)

- 'Work relationship' (WR) (eight items) - 9, 11, 18, 19, 23, 24, 26, 28
- 'Work-life balance' (WLB) (four items) – 2, 3, 5, 32
- 'Job overload'(JOL) (four items) - 1, 15, 21, 22
- 'Job insecurity'(JS) (four items) - 12, 13, 33, 34
- 'Job control' (CTL) (four items) - 4, 29, 35, 36
- 'Resources and communication (RC)' (four items) - 20, 27, 30, 31
- 'Pay and benefit'(PB) (one item) - 14

Initial Model

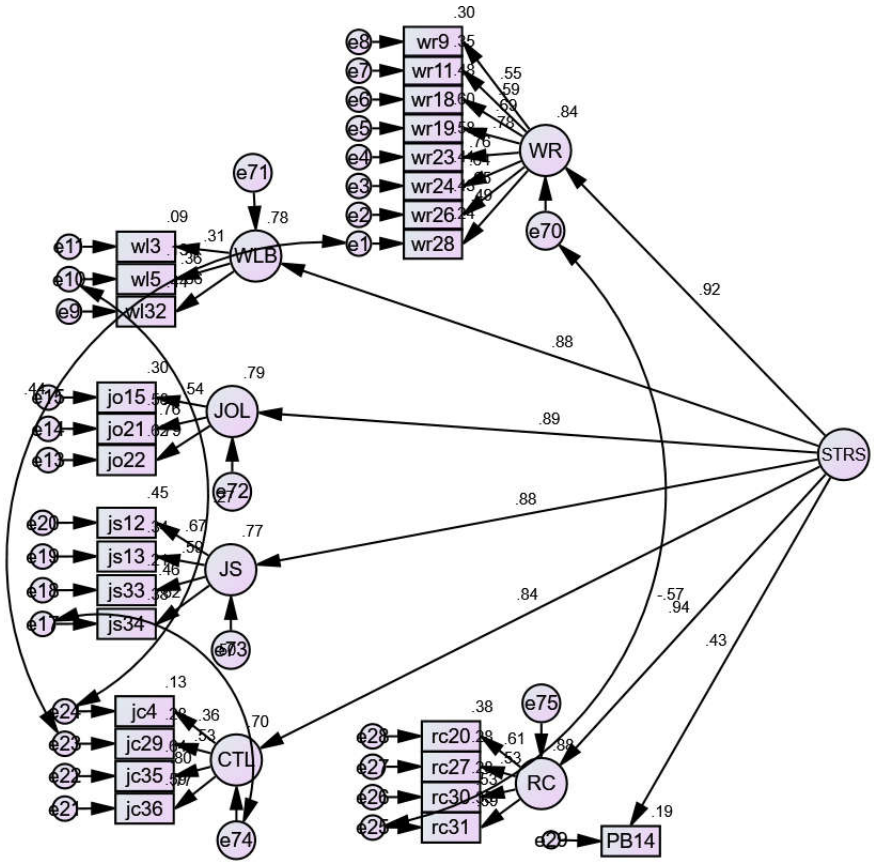
Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
WR	<---	STRS	.950
WLB	<---	STRS	.995
JOL	<---	STRS	.948
JS	<---	STRS	.891
CTL	<---	STRS	.932
RC	<---	STRS	.968
wr28	<---	WR	.686
wr26	<---	WR	.670
wr24	<---	WR	.658
wr23	<---	WR	.788
wr19	<---	WR	.804
wr18	<---	WR	.706
wr11	<---	WR	.656
wr9	<---	WR	.577
wl32	<---	WLB	.661
wl5	<---	WLB	.403
wl3	<---	WLB	.324
wl2	<---	WLB	.221
jo22	<---	JOL	.801
jo21	<---	JOL	.761
jo15	<---	JOL	.554
jo1	<---	JOL	.376
js34	<---	JS	.722
js33	<---	JS	.497
js13	<---	JS	.607
js12	<---	JS	.719
jc36	<---	CTL	.741
jc35	<---	CTL	.794
jc29	<---	CTL	.726
jc4	<---	CTL	.433
rc31	<---	RC	.639

			Estimate
rc30	<---	RC	.578
rc27	<---	RC	.620
rc20	<---	RC	.691
PB14	<---	STRS	.494

Because they were found to function extremely poorly, items wl2 and jo1 were removed from the model. The following is the modified and final model.

Final model



Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments:	378
Number of distinct parameters to be estimated:	64
Degrees of freedom (378 - 64):	314

Result (Default model)

Minimum was achieved
Chi-square = 1768.179
Degrees of freedom = 314
Probability level = .000

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	64	1768.179	314	.000	5.631
Saturated model	378	.000	0		
Independence model	27	8998.749	351	.000	25.637

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.169	.848	.817	.705
Saturated model	.000	1.000		
Independence model	.764	.268	.212	.249

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.804	.780	.833	.812	.832
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.075	.072	.079	.000
Independence model	.174	.171	.177	.000

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	164	173
Independence model	36	38

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
WR	<---	STRS	1.000				
WLB	<---	STRS	1.266	.108	11.767	***	par_21
JOL	<---	STRS	1.434	.112	12.853	***	par_22
JS	<---	STRS	1.157	.102	11.360	***	par_23
CTL	<---	STRS	1.391	.110	12.607	***	par_24
RC	<---	STRS	1.299	.122	10.683	***	par_25
wr28	<---	WR	1.000				
wr26	<---	WR	1.189	.092	12.869	***	par_1

			Estimate	S.E.	C.R.	P	Label
wr24	<---	WR	1.286	.101	12.736	***	par_2
wr23	<---	WR	1.417	.102	13.873	***	par_3
wr19	<---	WR	1.466	.105	14.000	***	par_4
wr18	<---	WR	1.291	.097	13.275	***	par_5
wr11	<---	WR	1.174	.097	12.161	***	par_6
wr9	<---	WR	.997	.086	11.630	***	par_7
wl32	<---	WLB	1.000				
wl5	<---	WLB	.602	.069	8.718	***	par_8
wl3	<---	WLB	.523	.070	7.436	***	par_9
jo22	<---	JOL	1.000				
jo21	<---	JOL	.915	.044	21.000	***	par_10
jo15	<---	JOL	.705	.048	14.760	***	par_11
js34	<---	JS	1.000				
js33	<---	JS	.800	.073	10.969	***	par_12
js13	<---	JS	.903	.068	13.271	***	par_13
js12	<---	JS	1.107	.076	14.648	***	par_14
jc36	<---	CTL	1.000				
jc35	<---	CTL	1.072	.048	22.123	***	par_15
jc29	<---	CTL	.693	.047	14.627	***	par_16
jc4	<---	CTL	.485	.050	9.757	***	par_17
rc31	<---	RC	1.000				
rc30	<---	RC	.901	.074	12.129	***	par_18
rc27	<---	RC	.889	.073	12.215	***	par_19
rc20	<---	RC	.957	.070	13.578	***	par_20
PB14	<---	STRS	1.106	.113	9.780	***	par_26

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
WR	<---	STRS	.919
WLB	<---	STRS	.882
JOL	<---	STRS	.886
JS	<---	STRS	.880
CTL	<---	STRS	.837
RC	<---	STRS	.938
wr28	<---	WR	.488
wr26	<---	WR	.652
wr24	<---	WR	.640
wr23	<---	WR	.761
wr19	<---	WR	.777
wr18	<---	WR	.693
wr11	<---	WR	.589
wr9	<---	WR	.547
wl32	<---	WLB	.662
wl5	<---	WLB	.364
wl3	<---	WLB	.308
jo22	<---	JOL	.785
jo21	<---	JOL	.759
jo15	<---	JOL	.543

			Estimate
js34	<---	JS	.615
js33	<---	JS	.462
js13	<---	JS	.585
js12	<---	JS	.672
jc36	<---	CTL	.765
jc35	<---	CTL	.803
jc29	<---	CTL	.528
jc4	<---	CTL	.362
rc31	<---	RC	.594
rc30	<---	RC	.525
rc27	<---	RC	.530
rc20	<---	RC	.614
PB14	<---	STRS	.433

- Using the above results, we can examine the validity (i.e., convergent validity) of the tool
  - **size and significance of indicator loadings**: All of them are significant. Most of the loadings are > .5 and may be accepted.
  - **Construct Reliability (CR):** 0.942085643> 0.70 indicates that the tool has a good CR.
  - Average variance extracted (AVE): 0.793715667>.50 is also acceptable.

Thus, from the above evaluations, the validity of 7 dimensions CFA of the tool appears to be acceptable.

JOB DISSATISFACTION

- 'Aspects of your job' adapted to measure job dissatisfaction (JD) (eight items) – 6, 7, 8, 10, 16, 17, 25, 37

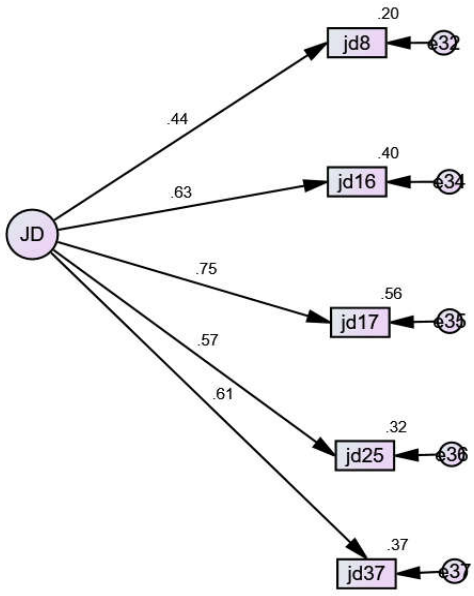
Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
jd6	<---	JD	1.000				
jd7	<---	JD	4.186	1.680	2.492	.013	
jd8	<---	JD	4.739	1.915	2.475	.013	
jd10	<---	JD	2.507	1.046	2.398	.016	
jd16	<---	JD	6.420	2.629	2.442	.015	
jd17	<---	JD	7.340	2.994	2.451	.014	
jd25	<---	JD	5.690	2.299	2.475	.013	
jd37	<---	JD	6.004	2.464	2.437	.015	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
jd6	<---	JD	.102
jd7	<---	JD	.405
jd8	<---	JD	.481
jd10	<---	JD	.266
jd16	<---	JD	.630
jd17	<---	JD	.735
jd25	<---	JD	.584
jd37	<---	JD	.607

Thus, jd6 and jd10 were cancelled. In the second CFA, jd7 had a loading of .394 which is the low. Thus, jd7 was also removed. After removing these three items, the following Modified and Final Model was obtained.



Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	10	19.218	5	.002	3.844
Saturated model	15	.000	0		
Independence model	5	765.954	10	.000	76.595

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.078	.991	.972	.330
Saturated model	.000	1.000		
Independence model	.854	.659	.489	.440

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.975	.950	.981	.962	.981
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.059	.033	.088	.255
Independence model	.305	.287	.323	.000

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	469	639
Independence model	20	25

Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments: 15

Number of distinct parameters to be estimated: 10

Degrees of freedom (15 - 10): 5

Result (Default model)

Minimum was achieved

Chi-square = 18.166

Degrees of freedom = 5

Probability level = .003

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
jd8	<---	JD	1.000				
jd16	<---	JD	1.464	.148	9.919	***	
jd17	<---	JD	1.700	.165	10.311	***	
jd25	<---	JD	1.253	.124	10.077	***	
jd37	<---	JD	1.372	.139	9.847	***	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
jd8	<---	JD	.444
jd16	<---	JD	.631
jd17	<---	JD	.747
jd25	<---	JD	.569
jd37	<---	JD	.605

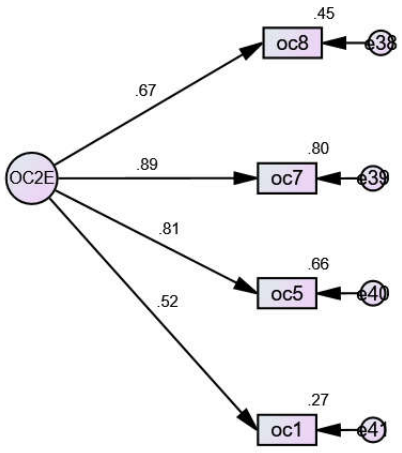
- Using the above results, we can examine the validity (i.e., convergent validity) of the tool
  - **size and significance of indicator loadings**: All of them are significant. Most of the loadings are > .6 and may be accepted.
  - **Construct Reliability (CR):** 0.739806497> 0.70 indicates that the tool has a good CR.
  - Average variance extracted (AVE): 0.3686184 <.50 is not adequate.

Thus, from the above evaluations, generally, the validity of one dimension CFA of the tool appears to be acceptable.

Part 3: Attitude Towards Your Organization

- OC2E (four items): 1, 5, 7, 8;
- EC2O (five items): 2, 3, 4, 6, 9;

OC2E



Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	8	8.158	2	.017	4.079
Saturated model	10	.000	0		
Independence model	4	1210.044	6	.000	201.674

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.050	.995	.975	.199
Saturated model	.000	1.000		
Independence model	1.099	.543	.238	.326

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.993	.980	.995	.985	.995
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.062	.022	.108	.266
Independence model	.497	.473	.521	.000

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	598	918
Independence model	9	12

Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments: 10

Number of distinct parameters to be estimated: 8

Degrees of freedom (10 - 8): 2

Result (Default model)

Minimum was achieved

Chi-square = 8.084

Degrees of freedom = 2

Probability level = .018

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
oc8	<---	OC2E	1.000				
oc7	<---	OC2E	1.265	.065	19.616	***	
oc5	<---	OC2E	1.176	.062	19.043	***	
oc1	<---	OC2E	.748	.055	13.703	***	

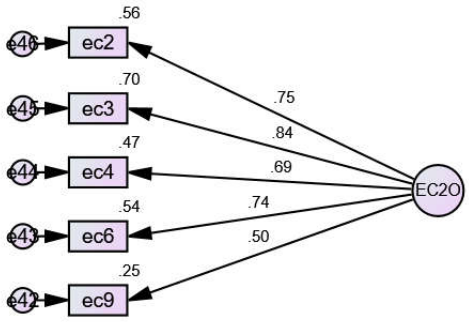
Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
oc8	<---	OC2E	.670
oc7	<---	OC2E	.895
oc5	<---	OC2E	.809
oc1	<---	OC2E	.519

- Using the above results, we can examine the validity (i.e., convergent validity) of the tool
  - **size and significance of indicator loadings**: All of them are significant. Most of the loadings are > .6 and may be accepted.
  - **Construct Reliability (CR):** 0.820881722> 0.70 indicates that the tool has a good CR.
  - Average variance extracted (AVE): 0.54344175> 0.50 is adequate.

Thus, from the above evaluations, generally, the validity of one dimension CFA of the tool appears to be acceptable.

EC2O



Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	10	95.343	5	.000	19.069
Saturated model	15	.000	0		
Independence model	5	1372.774	10	.000	137.277

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.112	.954	.862	.318
Saturated model	.000	1.000		
Independence model	.932	.527	.291	.352

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.931	.861	.934	.867	.934
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.149	.124	.176	.000
Independence model	.409	.391	.428	.000

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	95	129
Independence model	11	14

Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments:	15
Number of distinct parameters to be estimated:	10
Degrees of freedom (15 - 10):	5

Result (Default model)

Minimum was achieved
Chi-square = 79.572
Degrees of freedom = 5
Probability level = .000

Regression Weights: (Group number 1 - Default model)

		Estimate	S.E.	C.R.	P	Label
ec9	<--- EC2O	1.000				
ec6	<--- EC2O	1.550	.115	13.459	***	
ec4	<--- EC2O	1.520	.125	12.173	***	
ec3	<--- EC2O	1.796	.137	13.100	***	
ec2	<--- EC2O	1.575	.123	12.853	***	

Standardized Regression Weights: (Group number 1 - Default model)

		Estimate
ec9	<--- EC2O	.500
ec6	<--- EC2O	.737
ec4	<--- EC2O	.686
ec3	<--- EC2O	.838
ec2	<--- EC2O	.747

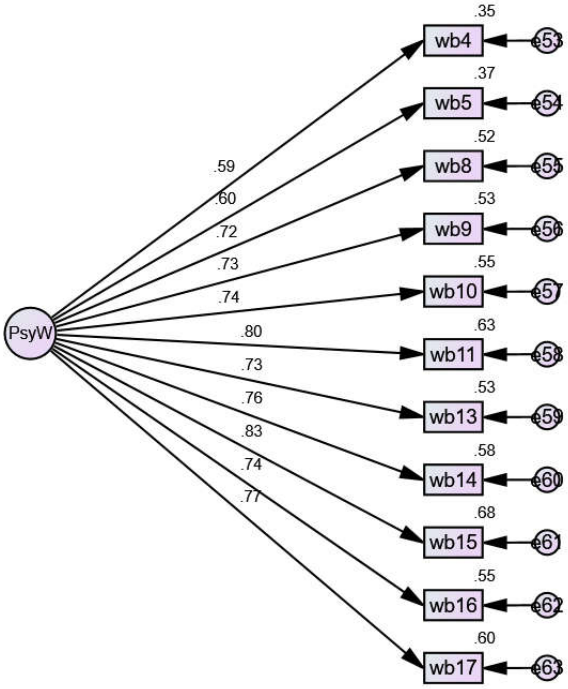
- Using the above results, we can examine the validity (i.e., convergent validity) of the tool
  - **size and significance of indicator loadings**: All of them are significant. Most of the loadings are > .6 and may be accepted.
  - **Construct Reliability (CR):** 0.832500724> 0.70 indicates that the tool has a good CR.
  - Average variance extracted (AVE): 0.5048036>.50 is adequate.

Thus, from the above evaluations, generally, the validity of one dimension CFA of the tool appears to be acceptable.

Part Four: Your Health

- Physical well-being (PhyW) (six items): 1, 2, 3, 6, 7, 12
- Psychological well-being (PsyW) (eleven items): 4, 5, 8, 9, 10, 11, 13, 14, 15, 16, 17

PsyW



Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	22	517.538	44	.000	11.762
Saturated model	66	.000	0		
Independence model	11	4578.786	55	.000	83.251

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.042	.874	.811	.582
Saturated model	.000	1.000		
Independence model	.325	.295	.154	.246

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.887	.859	.896	.869	.895
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.115	.106	.124	.000
Independence model	.318	.310	.326	.000

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	96	108
Independence model	14	15

Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments: 66
Number of distinct parameters to be estimated: 22
Degrees of freedom (66 - 22): 44

Result (Default model)

Minimum was achieved
Chi-square = 309.479
Degrees of freedom = 44
Probability level = .000

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
wb4	<---	PsyW	1.000				
wb5	<---	PsyW	.910	.060	15.088	***	
wb8	<---	PsyW	1.149	.072	15.883	***	
wb9	<---	PsyW	1.115	.073	15.263	***	
wb10	<---	PsyW	1.141	.074	15.451	***	
wb11	<---	PsyW	1.342	.084	16.025	***	
wb13	<---	PsyW	1.234	.079	15.647	***	
wb14	<---	PsyW	1.189	.080	14.784	***	
wb15	<---	PsyW	1.279	.080	16.038	***	
wb16	<---	PsyW	1.065	.073	14.498	***	
wb17	<---	PsyW	1.226	.078	15.701	***	

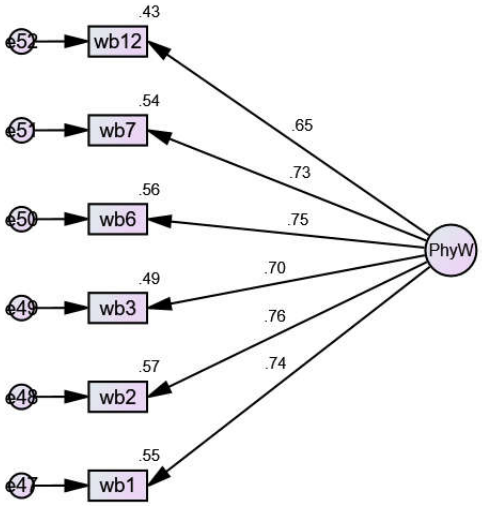
Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
wb4	<---	PsyW	.589
wb5	<---	PsyW	.605
wb8	<---	PsyW	.721
wb9	<---	PsyW	.729
wb10	<---	PsyW	.743
wb11	<---	PsyW	.796
wb13	<---	PsyW	.727
wb14	<---	PsyW	.763
wb15	<---	PsyW	.825
wb16	<---	PsyW	.742
wb17	<---	PsyW	.772

- Using the above results, we can examine the validity (i.e., convergent validity) of the tool
  - **size and significance of indicator loadings**: All of them are significant. Most of the loadings are > .7 and may be accepted.
  - **Construct Reliability (CR):** 0.926235023 > 0.70 indicates that the tool has a good CR.
  - Average variance extracted (AVE): 0.535251273>.50 is adequate.

Thus, from the above evaluations, generally, the validity of one dimension CFA of the tool appears to be acceptable.

PhysW



Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	12	130.528	9	.000	14.503
Saturated model	21	.000	0		
Independence model	6	1880.594	15	.000	125.373

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.038	.945	.872	.405
Saturated model	.000	1.000		
Independence model	.348	.450	.230	.321

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.931	.884	.935	.891	.935
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.129	.110	.149	.000
Independence model	.391	.376	.406	.000

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	106	135
Independence model	11	14

Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments:	21
Number of distinct parameters to be estimated:	12
Degrees of freedom (21 - 12):	9

Result (Default model)

Minimum was achieved
Chi-square = 97.043
Degrees of freedom = 9
Probability level = .000

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
wb1	<---	PhyW	1.000				
wb2	<---	PhyW	1.095	.053	20.806	***	
wb3	<---	PhyW	1.076	.057	18.966	***	
wb6	<---	PhyW	1.002	.059	17.057	***	
wb7	<---	PhyW	.923	.051	18.227	***	
wb12	<---	PhyW	.964	.060	15.951	***	

Standardized Regression Weights: (Group number 1 - Default model)

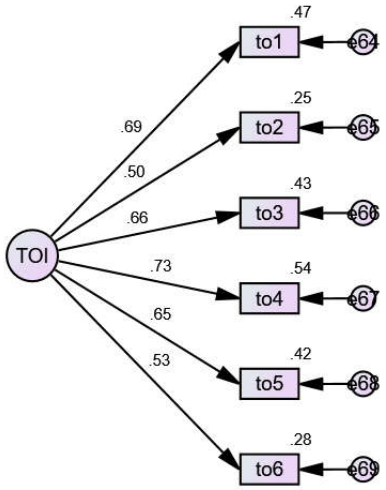
			Estimate
wb1	<---	PhyW	.740
wb2	<---	PhyW	.757
wb3	<---	PhyW	.702
wb6	<---	PhyW	.750
wb7	<---	PhyW	.735
wb12	<---	PhyW	.652

- Using the above results, we can examine the validity (i.e., convergent validity) of the tool
  - **size and significance of indicator loadings**: All of them are significant. Most of the loadings are > .65 and may be accepted.
  - **Construct Reliability (CR):** 0.856838186 > 0.70 indicates that the tool has a good CR.
  - Average variance extracted (AVE): 0.523547>.50 is adequate.

Thus, from the above evaluations, generally, the validity of one dimension CFA of the tool appears to be acceptable.

Part Six: Turnover Intention

- Turnover intention (TOI) (six items)



Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	12	32.656	9	.000	3.628
Saturated model	21	.000	0		
Independence model	6	1185.064	15	.000	79.004

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.055	.987	.970	.423
Saturated model	.000	1.000		
Independence model	.690	.570	.397	.407

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.972	.954	.980	.966	.980
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.057	.037	.078	.265
Independence model	.310	.295	.325	.000

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	422	540
Independence model	18	21

Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments: 21
Number of distinct parameters to be estimated: 12
Degrees of freedom (21 - 12): 9

Result (Default model)

Minimum was achieved
Chi-square = 33.330
Degrees of freedom = 9
Probability level = .000

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
to1	<---	TOI	1.000				
to2	<---	TOI	.617	.051	12.011	***	
to3	<---	TOI	.826	.054	15.418	***	
to4	<---	TOI	.925	.055	16.700	***	
to5	<---	TOI	.892	.059	15.004	***	
to6	<---	TOI	.660	.051	12.893	***	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
to1	<---	TOI	.686
to2	<---	TOI	.502
to3	<---	TOI	.656
to4	<---	TOI	.735
to5	<---	TOI	.651
to6	<---	TOI	.527

- Using the above results, we can examine the validity (i.e., convergent validity) of the tool
  - **size and significance of indicator loadings**: All of them are significant. Most of the loadings are > .65 and may be accepted.
  - **Construct Reliability (CR):** 0.796544235> 0.70 indicates that the tool has a good CR.
  - Average variance extracted (AVE): 0.399115167<.50 is not adequate.

Thus, from the above evaluations, generally, the validity of one dimension CFA of the tool appears to be acceptable.