Stress, Shiftwork and Work Performance among Nurses in Rubaga Division

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## Declaration

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I Kituuma Priscilca, hereby declare that this research dissertation is my own work and has never been presented in any other institution for any reward. In this, other researchers' knowledge has been acknowledged

Signature:

Kituuma Priscilca

## Approval

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I certify that this dissertation has been under my supervision and is now ready to be

submitted for examination with my approval.

Signature:

Date: 8/1/2024

Dr. Eboyu Francis

Supervisor

I dedicate this work to everyone who has helped me in the period of my studies.

## Acknowledgement

I thank God for whose favor has enabled me move this far. I am also extremely thankful to my supervisor and friends with whom we have always dealt with challenging circumstances. I really thank the team of the nurses for the support they showed to me during my research

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#### Abstract

The purpose of this study was to establish the relationship between stress, shift work and work performance. A quantitative study design was used and correlation employed to establish the relationship. The study involved a sample of 50 respondents using simple random sampling. Data was collected using a questionnaire and analyzed using Statistical Package for Social Scientists (SPSS). The findings of the study showed a significant relationship between stress and shift work (r=.482\*\*, p=.002) and concluded that as much as there is shift in work, nurses still experience stress. Also, a significant relationship between shift work and work performance, (r=.213\*\*, p=.004) was found which implies that performance increase with the increase in shiftwork. On the other hand, there was no relationship between stress and work performance(r=.014, p= .932) which implies that much as nurses experience stress, they may still have high levels of performance.

#### **Chapter One**

### Introduction

### Background

Stress is an individual's response to change in circumstances at the workplace. Stress is related to the role performed by the employee in an organization. In some organizations, employees are required to perform their roles based on shiftwork. Shiftwork involves an individual working in both normal and anti-social hours. In some organizations, individuals may be required to work in shifts running from 8am-5pm; then another shift from 5pm-12am; and from 12am-8am constituting both normal and anti-social hours. A person required to work in such shifts may develop stress (Riemann, 2019).

A number of studies have showed that shiftwork tends to decrease employee performance. Individuals who rotate between normal hours and anti-social hours may adapt to anti-social hours and their performance in normal hours will decrease. Stressful situations for working individuals tend to affect their work performance. High levels of stress due to prolonged shifts have been found to decrease work performance (Saranea et al., 2019). Nurses who work night shifts sometimes forget (fail) to change the IV bags or administer wrong dosages to patients when fatigued. For example; a patient in an Iranian hospital had given 80 units of insulin instead of eight units which led to the patient's death, therefore, the government gave 140 million dollars to the patient's family (Nasr Alrabadi et al., 2021).

#### **Problem Statement**

Mild stress levels lead to normal or increased work performance. However high levels of stress lead to low quality work performance. Nurses often work during anti-social hours which may cause failure to change IV bag or administer wrong dosages. As a result, some nurses administer incorrect drug dosages during midnight hours. By the time 8am nurses arrive, it would be too late to reverse side effects of wrongly administered dosages. Alternatively, wrongly administered dosages may not be recognizable by morning shift nurses, leading to slow poison and ultimate death. If this situation is not reversed, it may lead to death of patients under the care of stressed nurses.

### **Purpose of the Study**

The purpose of the study is to establish the relationship between stress, shiftwork and work performance of nurses.

## **Objectives of the Study**

The study will be guided by the following objectives:

1. To establish whether there is a significant relationship between stress and shiftwork.

2. To find out whether there is a significant relationship between shiftwork and work performance.

3. To examine whether there is a significant relationship between stress and work performance

Conceptual Frame Work



Figure 1: A conceptual framework showing the relationship between stress, shiftwork and work performance.

The conceptual framework above explains the relationship between stress, shiftwork and work performance.

#### **Scope of the Study**

### **Geographical scope**

The study was carried out among nurses in Rubaga division, Kampala district.

#### **Contextual scope**

This research focuses on the relationship between stress, shiftwork and performance among nurses. Stress in the nursing field, maybe caused by high-pressure, long working hours. The unpredictable nature of the nursing job significantly decreases the physical and mental well-being of nurses. In the end, this negatively impacts their performance in providing quality health care to their patients.

Working in both normal and anti-social hours disrupts nurses' biological rhythms, sleep, and social lives, known as shift wok. When these rhythms are disrupted, nurses lose out on vital aspects of life physically and mentally which leads to low quality work performance.

The cognitive, psychomotor, and affective aspects of work performance are crucial for nurses to deliver effective healthcare.

### **Time Scope**

The data collection and analysis process took 4 months from July 2023 to October 2023.

## Significance

These findings will offer valuable insights for healthcare institutions, policy makers, and nursing professionals in their efforts to address the challenges and improve the quality of patient care. They may also be used for future research or studies by learning institutions, and human resource departments to better understand the interlock between the three variables; stress, shiftwork, and performance. In addition,-the research findings may be used by researchers interested in information on the relationship between stress and work performance.

#### **Chapter Two**

#### **Literature Review**

### Introduction

In this chapter, a review of literature is presented in three parts. The first part is Stress and Shiftwork, the second part Shiftwork and Performance, the third part, Stress and Performance.

### **Stress and Shiftwork**

Work-related stress is a consequence of the high physical and emotional demands of the nursing profession and little to no control of one's personal life. Nurses' work is known to be stressful, and many nurses work in shifts. Shiftwork in the health care sector is often distributed to ensure round-the-clock patient care. Work schedules generally include fixed and rotating shifts both of which have been shown to affect the health and quality of life of health care workers due to circadian misalignment (Pers, 2023).

Both stress and shiftwork are factors that can affect how and what nurses eat and may increase nurses' risk for weight gain and obesity. Individuals who work night shifts suffer physical and emotional problems including alterations in circadian rhythm patterns and increased body weight. Disrupted circadian rhythms and poor sleep quality and quantity have been identified as two of the most significant elements in the long-term effects of night-shift work on nurses' mental health (Okechukwu et al., 2022). Nursing is characterized by a working articulation in shifts to ensure continuity of care throughout the 24 hours. However, shift work and the resulting desynchronization of circadian rhythms may have adverse effects on nurses' health (Rosa et al., 2019).

Low levels of work stress may cause nurses to become inactive, lazy, and bored. However, excessive amounts of stress will result in loss of efficiency, the occurrence of work accidents, impaired physical health, drug abuse, illness, and other unfavorable physical effects. According to the basic model of Robbin (Setyawati, 2019), the final result of an individual's work stress will affect the individual's productivity, absenteeism, turnover, and job satisfaction. Regarding the shift work system, there are positive and negative responses of the nurses. Negative responses occur because of particular expectations that kthe nurses cannot meet due to the work conditions. For example, a work shift often makes the nurses always work in the evening and at night (anti-social hours) for a particular period of time, so they have no time to be involved in social activities within the community. In addition, the married nurses also face difficulty managing quality time for their family. This problem may then result in job dissatisfaction, low motivation, and bad performance. Work shift affects the safety and health of an employee. Shift work results in poor quantity and quality of sleep which may leave the nurses on the edge and less ready to attend to patients. Smith et.al., 1982 (cited in Setyawati, 2019) states that the quantity and quality of sleep of those working night shifts are usually poor (Setyawati, 2019). He also suggests at lack of sleep is a typical problem faced by the employees working night shifts, while those working afternoon shifts usually have the longest time to sleep and those working morning shifts are in the between. Some problems found include loss of appetite and indigestion, psychosocial disorders, such as loss of spare time, disrupted family activity, disrupted social activity and stress.

#### Shift work and Performance

It has also been difficult to determine the effects of shiftwork on performance due to limited literature available. Studies of shift worker performance have been held back by union and management reluctance to cooperate and their fear of having the results of performance studies made public (Colligan et al., 2018). Despite these problems, there is sufficient evidence to show that worker performance is significantly impaired by shiftwork. Significant reductions in shift worker performance occur primarily during the night shift and have been demonstrated in telephone operators who show diminished response speeds, meter readers whose accuracy deteriorates, train engineers who fail to respond to alerting signals, and single-vehicle truck operators whose accident rates increase (Akerstedt, 2016). A study conducted in 2019 found that residents in Kisubi hospital and Entebbe hospital recorded that about 42.9% respondents reported occurrence of overdoses in the two hospitals, followed by 27 prescription errors approximate to about 35.1%. Other errors reported included: an 11.7% of misses, six adverse drug reactions and 2 cases of careless handling of patients (Mauti & Githae, 2019).

Today many workers still remain on these same weekly rotating shift schedules, schedules that have been shown to promote circadian rhythm disruption and impairments in worker performance and safety. In a recent investigation of night nurses' circadian rhythms, a previously unreported syndrome was discovered that appears to prevent certain night shift workers from performing their jobs for several minutes at a time (Folkard et al., 2017). In the study, 12% of the nurses reported that they had experienced the syndrome, which was characterized by a temporary gross motor paralysis lasting an average of about four minutes, during which they were totally unable to move. The paralysis typically occurred in the early morning hours while the nurses were sitting at their desks, performing tasks such as reading or writing. While further investigation of this "night shift paralysis" will be necessary to better document its occurrence, the safety implications of such a paralysis are obvious, the researchers who conducted the investigation report that they are planning a similar study of air traffic controllers.

### **Stress and Performance**

Stress refers to the bodily processes that result from circumstances that place physical or psychological demands on an individual. Although a certain degree of stress can facilitate task performance, it becomes problematic when the dekmands outweigh the perceived resources to cope. Excessive levels of intra-operative stress can thus compromise both technical and nontechnical skills. This concern is relevant because surgery is inevitably a stressful enterprise. Commonly recognized stressors include technical complications, time pressure, distractions, interruptions and increased workload. Initial evidence suggests that although newer surgical techniques, such as laparoscopic and robotic surgery, may result in better patient outcomes, they are often of greater duration and more physically and mentally challenging than traditional open surgery. Being able to operate effectively under such stress inducing conditions is a hallmark of expertise, and developing such skills should form part of the overt curriculum for surgical training. The surgical community has started to take steps in this direction. For example, the new Intercollegiate Surgical Curriculum in the United Kingdom explicitly includes (and assesses) skills such as clinical judgment and teamwork ( Jones & Bouffard, 2018).

These nontechnical skills are key for the management of stressful situations that a trainee may face in the operating room. Moreover, modern surgical education actively encourages selfreflection. These developments are encouraging, and the fact that novice surgeons are receiving training on cognitive and behavioral skills is likely to serve them well when faced with stressful intra-operative crises. Despite these developments, stress is still under acknowledged within the surgical community. Although mentored, trainees are not typically offered explicitly designed training programs that will allow them to learn and practice the various skills in stress-management safely. Such a lack of systematic training can result in surgeons who may be (and feel) poorly prepared for the complex demands of the operative environment. In contrast, high reliability, safety-critical industries (such as aviation and the military) have long acknowledged that even the performance of experienced operators can deteriorate rapidly under stress; these groups have put suitable training programs in place to mitigate its effects. Anesthesia has also pioneered crisis training for anesthetic trainee nurses. Surgery has yet to catch up with these developments.

#### **Research Hypothesis**

- 1. There is a significant relationship between stress and shiftwork
- 2. There is a significant relationship between shiftwork and wok performance
- 3. There is a significant relationship between stress and work performance

#### **Chapter Three**

### Methodology

## Introduction

In this chapter, a description of the methodology detailing the research design, area of study, population size determination, sample size, data collection procedure, data analysis and ethical considerations is made.

### **Research Design**

A Cross-sectional and correlation study design was used to examine the relationship that exists between stress, shiftwork and performance among nurses in Rubaga division. This is because the study aimed at to determining whether and to what degree a relationship exists between three variables.

### Population

The target population for the research study were nurses in hospitals found in Rubaga division. A population size of 100 nurses was selected where nurses with different experiences and backgrounds were selected for the study.

### Sample of the Study

Krejcie and Morgan (1970) table of sample size determination was used to select appropriate samples from the selected population. Out of the 100 target population, 50 were randomly selected. The study sample was selected using the simple random sampling method to select respondents. This sample comprised of both male and female nurses.

#### Instruments

The study adopted the use of questionnaires for collecting information.

#### Measures

The questionnaire had three sections: Section A captured bio data of the respondents that is, gender, age, marital status, level of educational and time spent at the organization. Section B consisted of items measuring stress. Section C measured shiftwork patterns. Section D measured work performance. The responses were measured using a Likert scale.

#### **Data Collection Procedure**

An introduction letter from the head of Department was obtained to be shown to the index respondents before any data collection was made. The researcher delivered the questionnaires which were analyzed using SPSS.

#### **Quality Control**

For purposes of having quality results from the study, the researcher ensured that the validity and reliability of research instruments are guaranteed. The validity of research instruments items was guaranteed by the fact that items of the questionnaire adapted from established scales and instruments had been used by previous researchers. Similarly, the researcher adopted standardized instruments.

#### **Data Management**

The data collected was edited and coded. The questionnaires were entered in Statistical Package for Social Sciences (SPSS). Numbers were used in the coding system. For example, Gender; Male was coded as 1 and Female coded as 2. Age coded as 20-29 years=1, 30-39 years=2, 40-49 years=3, 50-59 years=4 and 60-69 years=5. Marital status, Single coded as 1, married coded

as 2, Widowed coded as 3, Separated coded as 4 and Cohabiting coded as 5. Level of education, Certificate coded as 1, Diploma coded as 2, Degree coded as 3, Masters coded as 4 and PHD coded as 5. Time spent working in hospital coded as 0-5 years=1, 6-10 years=2 and 11 years and above=3. Effects of stress, shiftwork and work performance coded as strongly disagree=1, moderately disagree=2, slightly disagree=3, neither agree nor disagree=4, slightly agree=5, moderately agree=6, strongly agree=7.

### **Data Analysis**

Data entry was done using a computer program known as Statistical Package for Social Sciences (SPSS) using the different units of analysis. Data was analyzed from where frequencypercentage tables were generated for descriptive statistics while Pearson correlation coefficient (r) used to help examine the hypothesis with an aim of establishing the relation among the study variables.

### **Ethical Considerations**

Permission to carry out the study in the selected study hospitals was sought from the respective hospitals and signed authorization given by hospital administration. Informed consent sought from each respondent, and the right of withdrawal at any point of the study clearly explained. The respondents were assured of confidentiality.

## **Chapter Four**

## Results

## Introduction

This chapter is made of two parts. The first part presents descriptive statistics of the respondents and the second part presents inferential statistics using the Pearson Correlation Coefficient of stress, shift work and work performance.

## **Frequency Tables**

In this section, the respondents' personal data results are presented in form of frequencies and percentages as shown in the table 1 below;

Variable	Response	Frequency	Percentage
Age group	18-29 years	15	37.5
	30-39 years	12	30.0
	40-49 years	8	20.0
	50 eras and above	5	12.5
	Total	40	100.0
Sex of the	Male	21	52.5
respondents			
	Female	19	47.5
	Total	40	100.0
Marital status	Married	13	32.5
	Divorced	6	15.0
	Single	16	40.0
	Widowed	5	12.5
	Total	40	100.0
Highest level of	Certificate	6	15.0
education			
	Diploma	12	30.0
	Degree	22	55.0
	Total	40	100.0
Time spent at			
workplace	Less than 5 years	10	25.0
	5-10 years	13	32.5
	11 years and above	17	42.5

## Table 1: Bio data information.

Results in table 1 show that majority of the respondents were aged between 18-29 years (37.5%) followed by those aged 30-39 years (30.0%) and the least were aged 50 years and above (12.5%). The table also shows that male respondents were the majority in this study (52.5%) while female respondents were (47.5%). Results also show that majority of the respondents were single (40.0%) followed by married (32.5%) and the least were widowed (12.5%) the table further shows that degree holders were the majority in this study (55.0%) followed by diploma holders (30.0%) while the least were certificate holders(15.0%).

#### **Inferential Statistics**

		Stress	Performance	Shifitwork
Stress	Pearson Correlation	1		
	Sig. (2-tailed)			
	Ν	40		
Performance	Pearson Correlation	.014	1	
	Sig. (2-tailed)	.932		
	Ν	40	40	
Shift Work	Pearson Correlation	.482**	.213**	1
	Sig. (2-tailed)	.002	.004	
	Ν	40	40	40

Table 2. Correlation coefficient of stress, shift work and work performance	Table 2:	Correlation	coefficient of stre	ss, shift work and	i work performance
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\*\*. Correlation is significant at the 0.01 level (2-tailed).

### **Stress and Shiftwork**

The first hypothesis of the study stated that there is a significant relationship between stress and shiftwork. The results in table 2 indicated that there is a significant relationship between stress and shift wok, (r=.482\*\*, p=.002).this implies that as much as there is shift in work, nurses still experience stress. Since p values are smaller in magnitude than the level of significant (p<0.01), the alternative hypothesis is related and it is concluded that there is a significant relationship stress and shift work.

### Shift work and Work Performance

The second hypothesis of the study stated that there is a significant relationship between shiftwork and wok performance. Results in table 2 show that there is a significant relationship between shiftwork and wok performance, (r= $.213^{**}$ , p=.004). This implies performance increase with the increase in shiftwork. Since p value is smaller in magnitude than the level of significant (p<0.01), the alternative hypothesis is retained and it is concluded that shift work and performance are related.

#### **Stress and Work Performance**

The third hypothesis of the study stated that there is a significant relationship between stress and work performance. Results in table 2 show that there is no relationship between stress and performance, (r=.014, p=.932). This implies much as nurses experience stress, they may still have high levels of performance. Since p values are greater in magnitude than the level of significant (p>0.05), the alternative hypothesis is rejected and it is concluded that there is no relationship between stress and performance.

#### **Chapter Five**

#### **Discussion, Recommendations and Conclusions**

This chapter has three parts. The first part is a discussion of the study's findings in relation to the findings of other researchers, the second part is the conclusions and the third part are the recommendations.

### **Stress and Shiftwork**

The first hypothesis of this study which stated that there is a significant relationship between stress and shiftwork was accepted based on the results.

The study results are in line with literature which suggested that both stress and shiftwork are factors that can affect how and what nurses eat and may increase nurses' risk for weight gain and obesity(Okechukwu et al., 2022). Individuals who work night shifts suffer physical and emotional problems including alterations in circadian rhythm patterns and increased body weight. Nursing is characterized by a working articulation in shifts to ensure continuity of care throughout the 24 h. However, shift work and the resulting desynchronization of circadian rhythms may have adverse effects on nurses' health (Rosa et al., 2019).

The study results are in line with the study which showed low levels of work stress may cause nurses to become inactive, lazy, and bored. However, excessive amounts of stress result in loss of efficiency, the occurrence of work accidents, impaired physical health, drug abuse, illness, and other unfavorable physical effects (Setyawati, 2019). The final result of an individual's work stress will affect the individual's productivity, absenteeism, turnover, and job satisfaction. Regarding the shift work system, there are positive and negative responses of the nurses.

Study results have shown that shift work is associated with a number of health problems that have biological, psychological, and sociological aspects. Shift work leads to negative physiological and psychological outcomes caused by disturbances in the biological rhythm (Özdemir et al., 2013).and therefore working the night shift was evaluated as chronic sleep deprivation.

The study results are in line with the study which suggested that nurses who work rotating shifts tend to experience work-related stress (Lin et al., 2015). More so, it's been found out that shift workers significantly experienced higher levels of job and life stress and higher indices of negative mental health outcomes (Srivastava, 2010).

#### **Shiftwork and Work Performance**

The second hypothesis of the study stated that there is a significant relationship between shift work and work performance and the results confirmed it positive.

The study results are in line with literature which showed that the characteristics of shiftwork directly affect sleep quality and burnout and indirectly affect job performance among nurses (Giorgi et al., 2018). Shift work can lead to the misalignment of circadian rhythms and, subsequently, to sleep disorders that have many possible consequences for nurses, including performance impairment (Johnson et al., 2010).

The study findings are in line with the study by Hanna, (2008) whose results showed that shift work has the potential to be both beneficial and detrimental to the productivity of construction labor. The study further agrees with the study which demonstrated that night shift workers committed more errors and had decreased performance (De Cordova et al 2016).

The study results are in line with findings by Akerstedt (2016) that showed that worker performance is significantly impaired by shiftwork and revealed that significant reductions in shift worker performance occur primarily during the night shift and have been demonstrated in telephone operators who show diminished response speeds, meter readers whose accuracy deteriorates, train engineers who fail to respond to alerting signals, and single-vehicle truck operators whose accident rates increase.

#### **Stress and Work Performance**

The third hypothesis which stated that there is a significant relationship between stress and work performance failed to be accepted by the study findings.

Professional stress and weariness typically result in numerous health-related glitches that have unswerving adverse organizational concerns such as malingering and performance insufficiencies (Yaacob & Long, 2015). Notwithstanding the tactic used to counteract work-related stress, what remains apparent is that the management should endeavor to put in place comprehensive stress management for nurses to prevent work-related stress and make it a priority so as to manage stress and improve work output.

The physical and consciousness demands of workers at the low level make them more susceptible to extraordinary levels of tension. The effects of stress are demonstrated in increased lateness to work, low productivity and increased sick leaves (Quick & Henderson, 2016). Despite the extremely adverse effects of occupational stress on the human body and job performance, many organizations have not considered putting in place tangible methods to discourse these stress-related conditions that tend to affect productivity in a negative way (Masihabadi et al., 2015).

Furthermore, there has not been a conscious establishment of a linkage between occupational stress and its adverse effect on productivity.

Karimi (2012) studied factors that are critical to the performance of uniformed officers in Kenya and found out that the efficient fulfillment of uniformed civil servants in Kenya planning and establishment of activity time and scheduling were critical in determining the overall performance of uniformed employees (Quick & Henderson, 2016).

Yozgat et al., (2013) in their research on job stress and job performance among employees in the public sector found a negative relationship between job stress and job performance (Abdelmoteleb, 2019). In a similar way, Siu (2003) revealed that there is a negative relationship between sources of stress and self-related job performance (Kuo, 2015). Events identified as a cause of stress lead to depression, which in turn, cause decrements in interpersonal and cognitive/motivation aspect of job performance (Haque & Aston, 2016).

In a similar research among state university department Suandi, Ismail, & Othman (2014), found that, the relationship between job stress and job performance is at a quite negative but moderate level (Bahrami et al., 2016).

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## Appendices

## **Appendix 1: Questionnaire**

Dear respondent, this questionnaire seeks to measure the relationship between stress, shiftwork and work performance. Remember there are no right or wrong answers, and your honest opinion is critical to the success of this study. All your responses will be kept confidential.

## **SECTION A: Personal Information**

1. Age group in years
1). 18-29 years       2). 30- 39 years       3). 40 - 49
4) 50 and above
2. Sex of respondent
1). Male 2). Female
3. Marital Status
1). Married       2). Divorced       3). Single       4). Widowed
4. Highest Level of Education
1). Certificate 2). Diploma 3). Degree
4). Others Specify
5. Time spent at the workplace.
1). Less than 5 years    2). 5-10 years    3). 10 and above

## **SECTION B: Stress**

Using the below scale, circle the number to the right of each question that you believe comes

closest to your level of proficiency.

Scale: 1 =Strongly Agree (SA) 2 =Agree (A) 3 =Sometimes(S) 4 =Disagree (DA) 5 =

Significantly Disagree (SDA)

S/N	Items	Your rating				
1	Working here makes it hard to spend enough time with my	1	2	3	4	5
	family					
3	Working here leaves little time for other activities.	1	2	3	4	5
4	I frequently get the feeling I am married to the company.	1	2	3	4	5
5	I have too much work and too little time to do it in	1	2	3	4	5
6	I sometimes dread the telephone ringing at home because the	1	2	3	4	5
	call might be job-related					
7	I feel like I never have a day off.	1	2	3	4	5
8	I feel guilty when I take time off from work	1	2	3	4	5

## Section C; Work Performance

Using the scale given below, please circle the number by each statement that best represents the extent to which you agree with the given statements.

## Scale

1 = Strongly Agree (SA), 2 = Agree (A), 3= Sometimes (S), 4= Disagree (A)

5 = Strongly Disagree Agree (SDA)

S/N	Statements	Your rating				
1	I always report on duty on time	1	2	3	4	5
2	I complete my work on time	1	2	3	4	5
3	I conscientiously follow company policy and regulations	1	2	3	4	5
4	I make sure the things are neat, clean and orderly	1	2	3	4	5
5	I volunteer to do things not required by my job but necessary for the Organization	1	2	3	4	5
6	I make innovative suggestions to improve the Organization	1	2	3	4	5
7	I am concerned with standards of work performance	1	2	3	4	5
8	I can be expected to attend work regularly	1	2	3	4	5

Section D; Shift Work

	ITEMS	Respons	ses
1	Does shift work interfere with getting good sleep?	Yes	No
2	Does shift work interfere with having a balanced diet?	Yes	No
3	Does shift work interfere with your family life?	Yes	No
4	Does shift work interfere with your social life?	Yes	No
5	Do you often have less than 12 hours break between shifts?	Yes	No

# Appendix II: Budget

Items	Quantity	Unit cost (Shs)	Amount (Shs)
Internet costs	48 GB	50,000	100,000
Printing articles	20	400	8,000
Laptop			1,000,000
Binding	2	5000	10,000
Typing			20,000
Transport	10days	30,000	300,000
Accommodation	12days	50,000	600,00
Total			1,228,000

The following items will be used throughout the research proposal: