

**Case report****Fatigue in the Ghanaian Nurse and its impact on patient care**Linda Akuamoah Sarfo<sup>1\*</sup>, Dorothy Awuah-Peasah<sup>2</sup>, Elizabeth Acheampong<sup>1</sup>, and Florence Asamoah<sup>1</sup><sup>1</sup>Presbyterian University College of Ghana, Department of Nursing1, PO Box 42, Agogo Asante-Akyem, Ghana West Africa<sup>2</sup>Christian Service University College, Kumasi, Ghana**ARTICLE INFO:****Article history:**

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**ABSTRACT**

Fatigue is something every person has experienced. It is a natural part of the daily cycle of life. Fatigue among health professionals is becoming a topic of interest among researchers because of its detrimental effect it can have on patient care outcomes. The purpose of this study was to examine the fatigue in Ghanaian nurses and its impact on patient care at the Agogo Presbyterian Hospital. A Modified version of the Piper Fatigue Scale (PFS) was administered to 100 nurses. The objectives were to find out the shift Ghanaian nurses were more fatigued and the degree at which the fatigue interfered with their social, psychological health, and their ability to perform their duties. The result indicated that majority of Ghanaian nurses prefer morning shifts to either afternoon or night shifts and also most of them felt most fatigued during the night shifts as compared to morning or afternoon shifts. Also, the majority of Ghanaian nurses responded that the fatigue they were feeling interfered with their social and psychological health, and their ability to perform their tasks; such as medication administration. The recommendations are that; Administrators of health institutions and hospitals should take particular attention and consider making compulsory, check-ups of nurses' social and psychological health periodically during the year. In addition, Ghanaian nurses should be equipped with proper education and training on life style modification practices which lead to the promotion of health and prevention of fatigue and other illnesses.

**1. Introduction**

Fatigue is something every person has experienced; it is a natural part of the daily cycle of life. Fatigue is also a major factor in many serious accidents. In addition, fatigue is a non-specific symptom because it can be caused by many factors or conditions including physiological states such as sleep deprivation or excessive muscular activity; or medical conditions such as chronic inflammatory conditions, bacterial or viral infections, or autoimmune illnesses; and psychiatric disorders such as major depression, anxiety disorders, and somatoform disorders<sup>[1]</sup>.

Furthermore, fatigue may be caused by prescription medications such as antihistamines, drugs prescribed for insomnia, or chemotherapy drugs. Also, fatigue may also result from unhealthy lifestyles, such as frequent disruptions in the wake-sleep cycle, excessive alcohol or caffeine intake, and psychosocial stressors, or from the delayed effects of traumatic events<sup>[1]</sup>.

Among healthcare professionals, fatigue has been found to increase over the duration of a shift, regardless of the length of it<sup>[2]</sup>. In a study conducted by Jostenet *al*<sup>[3]</sup> it showed that in nurses specifically, an extended workday of nine hours led to greater fatigue and a greater number of health complaints by nurses

compared to nurses who worked an 8-hour shift. The nurses in the study also reported that the quality of their work suffered with the introduction of 9-hour shifts to their workday.

In another study done by Jansen *et al*<sup>[4]</sup> it showed that nurses who worked more hours per week resulted in a greater need for recovery from work in women than in men. This finding is important given that, 95% of the nursing workforce is female. The researchers also found that women working six or fewer hours per day had significantly lower levels of the need for recovery time when compared to women who work eight hours per day.

The health care environment in Ghana is faced with increased demands regarding improving patient care outcomes at the same time it is facing a serious nursing shortage. Work environments for nurses include changing work patterns, lengthy shifts, and added overtime

because of the high nurse-to-patient ratio. These aspects coupled with the increased acuity of patients and complexity of care, set the stage for fatigue in the Ghanaian nurses and increased errors affecting patient.

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## 2. Statement of the problem

The Institute of Medicine considers nurses' work environments, specifically long working hours, a threat to patient safety[5]. At the same time, the American Nurses Association (ANA) requires nurses to take an active position in dealing with the environmental system factors and human factors that pose a threat to patient's safety[6]. In 1999, the Institute of Medicine reported that medication errors account for over 7,000 deaths per year[7]; a finding that highlights the need for research in the field of medication safety. Workloads affect nurses' perceptions of the quality of care their patients receive, and poorer quality scores are related to an increased number of adverse patient outcomes[8].

In Ghana the situation is of more grave concern due to massive nursing shortages, high nurse-to-patient ratio, working without the necessary supplies and equipment which impacts patient care negatively which are all determinants of fatigue. The purpose of this research is to determine the effects of fatigue in Ghanaian nurses and the impact on patient care.

## 3. Objectives

The objectives were to find out the shift Ghanaian nurses were more fatigued and the degree at which the fatigue interfered with their social and psychological health, and their ability to perform their duties.

## 4. Methodology

### 4.1 Study area and design

This research was conducted in Agogo Presbyterian Hospital which was established on 21st March, 1931 as the first missionary hospital in Ghana. It is the second largest hospital in the Ashanti Region (after Komfo Anokye Teaching Hospital), but also a leading hospital in Ghana for ophthalmic surgery. It is situated at Agogo, in the Asante Akyem North district of the Ashanti region of Ghana and has a bed capacity of 250 and a staff population of 400, out of which 138 are nurses[9]. The hospital provides specialty care in ophthalmology, pediatrics, general surgery and internal medicine which attracts patients from all parts of the country as well as neighboring countries of Burkina Faso, Togo and Coted'Ivoire. The departments of the hospital include: outpatient, laboratory, pharmaceutical, radiography, physiotherapy, casualty, and the two operating theatres. There are currently a total of seven wards comprising maternity, medical, two surgical units, intensive care unit, pediatric ward, and ophthalmic ward[9]. Agogo hospital is a teaching hospital for nurses and medical students. The research design was a non-experimental descriptive study.

### 4.2 Study population, instrument, and procedure

Purposive sampling was adopted for the study where the researcher selects respondents based on personal judgment about which one will be most representative or informative<sup>[10]</sup> and was willing to take part in the study. Since it was the practicing nurses who worked with patients, the practicing nurses were therefore the focus of the study. Out of the 138 nurses of the hospital, 100 of them took part in the study. The 100 nurses worked closely with patients, while the remaining 38 nurses worked in administration. Thus, 100% of the population took part in the study.

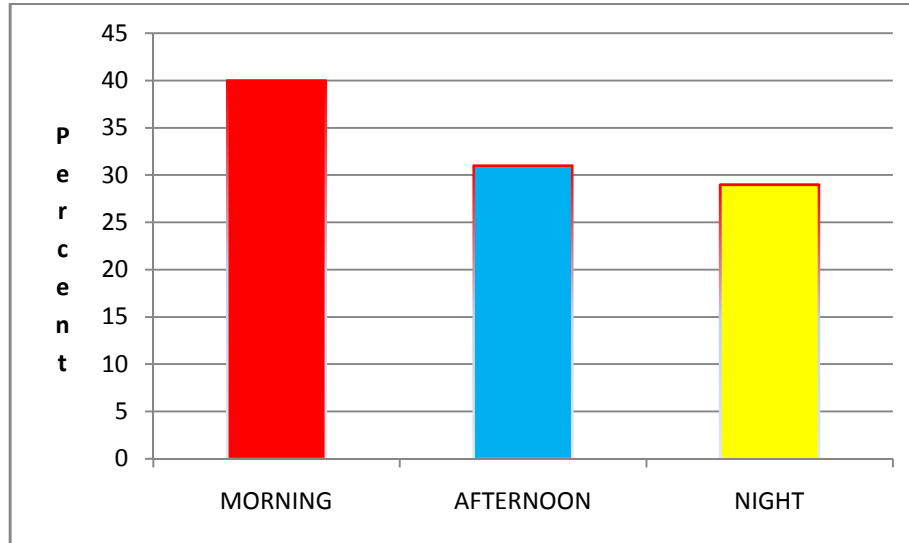
A modified version of the Piper Fatigue Scale (PFS) was used together with data about the degree of fatigue the nurses were experiencing, the impact it has on the patient as well as the nurse, and to find out the shift the nurses preferred most and which shift they feel most fatigued. Since the nurses could read and write, the questionnaires were given to the nurses to fill at their own conveniences and later submitted to the researcher. It took the respondents an average of one month to respond to the questionnaires. The data was analyzed using Statistical Package for Social Sciences (SPSS) software. The research received a Human Subjects Protections Committee Review from the hospital administration, and was approved prior to the conduct of the research. Also, consent was obtained from the respondents/nurses before administration of the questionnaires.

## 5. Findings and analysis

### 5.1 Demographic information of respondents

The majority of respondents, 46%, were between the ages of 18-29 years, 35% of the respondents were between 30-39 years, and 19% of the respondents were between the ages of 40-49 years. None of the respondents fell between the ages of 50-69. In addition, 78% of the respondents were females, thus forming majority of the respondents. On the other hand, 22% of them were males. The majority of the respondents, 54%, were married, while 44% of the respondents were single, and 2% of the respondents were divorced. Respondents were asked if they had any children and 46% had at least one child, while the majority of respondents, 54%, reported of having no children. Respondents were asked which unit they worked and 44% reported working in the medical care unit, 40% reported working in the surgical unit, and the remaining 16% of the respondents reported working in other care units of the hospital. Respondents were asked about their years of working experience and 68% of the respondents stated that they had between 0-10 years of experience, 24% of the respondents have between 11-20 years' experience, and lastly 8% of the respondents have between 21-29 years.

## 5.2 Impact of fatigue in the Ghanaian nurse



**Figure 1: Shift respondents' preferred most**

Figure 1 above shows that 40% of the respondents indicated that they prefer morning shifts, 31% of the respondents prefer the afternoon shift and 29% of the respondents indicated that they prefer night shifts. The results are in line with a study conducted by Scott<sup>[11]</sup> indicates that most nurses prefer the morning or afternoon shifts.

Respondents were asked which shift they felt most fatigued and majority, 52%, reported feeling fatigued during the night shifts, while 29% of the respondents reported feeling fatigued during the afternoon shifts and 19% of the respondents indicated feeling fatigued during their morning shifts. Night shift nurses tend to get less sleep than their day shift counterparts and their sleep is quantitatively poorer. The results supports the findings from a study conducted by Gabu *et al*<sup>[12]</sup> that the night nurse arrives at work with a larger sleep deficit than those on day the shift.

Respondents were asked how long they were feeling fatigue and 30% reported feeling fatigued for months, 22% had been feeling fatigued for at least a year, 17% had been feeling fatigued for weeks, 15% had been feeling fatigued for days, 10% had been feeling fatigued for hours and 6% of the respondents had been feeling fatigued for minutes. The results indicated that 100% of the nurses were feeling fatigued. The results are in line with a study done by Joinson<sup>[13]</sup> showed that most nurses are fatigued or tired.

Respondents were asked whether their fatigue interfered with their ability to complete their work and 59% stated that the fatigue they were feeling did interfere with their ability to complete their work and in contrast, 41% of the respondents indicated that the fatigue they were feeling did not interfere with their ability to complete their work. This is in line with the study conducted by Mayo and Duncan<sup>[14]</sup> which stated that nurse's

fatigue was one of the top 3 causes of drug errors and the nurse's fatigue greatly contributed to medical errors.

Respondents were asked whether the fatigue they felt interfered with their psychological health and their ability to socialize and the majority 61% responded in the affirmative while 39% responded in the negative. This is in line with a study conducted by Copping<sup>[15]</sup> which indicates that nurses with fatigue continue to work in their toxic state, and it disrupts the morale of the unit and personal relationships with people both at work and at home.

Respondents were asked whether the fatigued they felt interfered with their ability to administer medication and the majority, 57% reported in the affirmative, while 43% indicated that the fatigue they were feeling did not interfere with their ability to administer drugs. The results are line with an article published by Parish<sup>[16]</sup> which states that increasing demands placed, which includes fatigue, on nurses can render them more prone to medication errors. Overworking can affect concentration and competence and this can be exacerbated by erratic working hours and stress, while complacency can also lead to mistakes.

## 6. Conclusion and recommendations

In conclusion, most of the nurses preferred morning shifts or afternoon shifts as compared to the night shift. In addition, majority of nurses felt most fatigued during the night shifts. Thus the prevalence rate of fatigue is very high during the night shifts among the nurses. Majority of the respondents reported that fatigue interfered with their ability complete their work, administer medication, and affected their psychological health and the ability to socialize with friends. This study has shown that fatigue has negative impacts on the nurse as well as patient care.

It is recommended that Administrators of health institutions and hospitals should take particular attention and consider making compulsory check-ups of nurses fatigue level at least three times yearly. This will ensure the amelioration of patient-nurse relationships and to prevent undue mistakes when caring for the patient since nurses may be fatigued as a result of certain stressors. In addition, nurses should consider practicing certain life style modification methods such as getting enough sleep during their off peak periods and off days and also practicing relaxation techniques; such as listening to music, and exercising. Proper education, training and life style modifications are important practices for promoting health and prevention of fatigue and other illnesses.

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