

Research Article

Effects of Stress on the Job Performance of Psychiatric Nurses

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Abstract: The purpose of this study was to examine the effects of stress on the job performance of psychiatric nurses in the Ankaful Psychiatric Hospital in Cape Coast. A descriptive survey design was adopted for the study. A sample of 150 psychiatric nurses were selected from a population of 197 psychiatric nurses using a simple random sampling procedure. Data were collected using the Weiman Occupational Stress Scale (WOSS) questionnaire. 143 answered questionnaires were retrieved out of the 150 questionnaires offered, giving a 95% return rate. Data were analysed using both descriptive and inferential statistics. The study revealed that the psychiatric nurses' job performance were negatively affected due to the effects of stress, which include mild to severe headache, loss of concentration, exhaustion, anger, overreaction, finding excuses and absence from work, and forgetfulness. The study recommended that the hospital authorities structure the work schedules of psychiatric nurses so that the nurses can get intermittent periods of leave away from work while providing the logistics to make the work of psychiatric nurses easy.

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1. Introduction

Over the decades, the subject of stress in health professionals has become of major interest, not just to researchers but also to governments, hospital and community health service managers. Due to the structure, schedule and work load of health caregivers, they are prone to stress and the most affected are nurses, who deal directly with patients [1]. Stress defined as a state of disequilibrium or threatened homeostasis. This definition suggests that an organism's attention is enhanced when stress is perceived and the mind centers around the apparent danger of the stressful event [2]. There is always a stressor which produces stress and a stress response, which is either of consequence or of benefit to an individual. Stressor is then a source of potential stress; circumstance or events which may produce stress [3]. Occupational stress is defined as an imbalanced state which exists among the cognitive, emotional and working environment of an individual [4]. This definition is in adherence with the Person Environment Fit Theory, which lay emphasis on disequilibrium between individual's personal attributes (interest, abilities and skills) and work demands as a major source of job related stress. The Person–Environment (P-E) Fit Theory places importance on both the individual and environment in stress theories. The theory helps to better understand how one becomes stressful and the consequences of stress. The Person – Environment (P-E) Fit Theory emphasises the association between an individual and his work space in psychological perspective [5, 6]. However, the degree of connection between a person and his current space influences his behaviour, attitude, and most importantly his well-being [7].

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According to researchers, when one is overloaded with much work of little timelines to deliver, the individual becomes anxious, frustrated and stress sets in eventually [8]. Occupational stress stems from excessive work demands, working with insensitive bosses and colleagues and lack of job tools and equipment to make work easier and faster [9]. Job dissatisfaction, absenteeism, lateness, job turnover is always associated with occupational stress; which has a negative impact on work output of every organisation [6]. Within every organisation, the wellbeing of employees is vital to its progress. When employers create healthy organisation, it increases productivity, financial benefits of the organisation, as well as promote the physical and mental status of its workers. On the other hand, when employees work in threatening environments, it affects their health and reduces work output [10]. The health of every worker is linked to the conditions at work and other social determinants [11]. Nevertheless, most working environments expose employees to many factors which threaten their health and life. These factors range from physiological, psychosocial to mental factors, which go a long way to impede on the health of the employee [12].

Anxiety, depression, stress, sleeplessness and burnout are some of the examples of the mental risk factors employees face at work. Although some of these mental health risk factors are less likely to occur in some workplaces, others also do occur in almost all organisations. Stress is a health risk which employees in both developed and developing countries face [13, 14]. Stress puts a lot of pressure on the body which when not managed can be bad to the health of the individual and the work output of such individual [15]. Workers normally respond to work changes that require both physical and mental response to work responsibilities which are very stressful [16]. Stress is any event which makes an individual feel excited, angry or anxious above the individual's normal or usual state [17]. Job stress is any situation where there are incompatibilities between one's job roles demand and the individual's capabilities and resources [18]. Indeed, it has been found that job related stress is the leading kind of stress which affects American workers, and this menace has intensified progressively over recent decades, reducing workers output in the State [19]. This could be as a result of workers having a perceived little control over many work demands. It is however worth noting that stress is not always a bad omen, it sometimes urges people to work more efficiently.

Nurses who experience stress exhibit apathy towards their duties, absenteeism and turnover of their work [1]. Job stress is closely related to job dissatisfaction among nurses. The greater the stress experienced at work, the higher the unsatisfactory level among the workers [18]. When nurses experience stress, the patients they care for, also receive the effects. Studies put it better as: a healthy and a happy caregiver gives satisfied care to patients, but the unhappy and stressful nurses give an apathetic delivery and care to patients [20, 21]. The colleagues of the stressed nurse are not spared of the impact of the stress. It affects their delivery since healthcare professionals' work in groups [22]. Higher demand is placed on the colleagues of stressed nurses, and as a result leaves such staff stressed as well, making the situation even more compounding. More gravely, nurses who go through massive stress experience other physiological problems such as headache, fatigue, body pains and its associated problems [23].

The situation is far intense with psychiatric nurses. Working with aggressive, depressed and harmful patients create a working environment which is cogitated as most hazardous. Globally, there is enough evidence suggesting psychiatric nursing as a stressful job [24]. The working environment of psychiatric nurses is quite rare and totally unique as compared to that of other nurses who work in general hospitals. The locked wards within which psychiatric nurses are confined with mentally ill patients (some aggressive) on a morning, afternoon or night shift duty, mount unbearable fear on these nurses leading to stress [25]. Most psychiatric nurses feel pressured by the demands of their patients and have feelings which are patient threatening, creating fear in them when performing their duties. Psychiatric nurses also experience stress from verbal abuse and

physical abuse from patients which sometimes leave unforgettable marks on them throughout their lifetime [25]. An abused psychiatric nurse might experience post-traumatic stress of such instance whenever they get to the working environment, even worse is to continue to nurse that patient which affect the holistic functioning of the nurse. Working with patients who have incoherent speech is also a stressful deal for psychiatric nurses, since the nursing procedures in such condition depend intensively on observational assessment [26]. The harsh nature of psychiatric hospitals' working environments, allocation of job tasks, tight inflexible work schedules, limited staff, varying patients' needs among others account for the reoccurrence of stress among psychiatric nurses [24].

The effects of stress on psychiatric nurses have been explored in a variety of studies. For instance, a study investigated the correlation among occupational stress, caring behaviours and their quality of life in association to health. In doing this, a correlational study of nurses who worked at public and private units was conducted in Greece. Data were collected using three research instruments: (1) the Expanded Nursing Stress Scale (ENSS), (2) the Health Survey SF-12 and (3) the Caring Behaviours Inventory (CBI). Univariate and multivariate analyses were performed. The results showed that nurses seeing people dying, patients and their families, conflicts with supervisors and uncertainty about the therapeutic effect caused significant stress among participants. It was found that discrimination stress factor was revealed as an independent predictor of quality of life related to physical health, while stress resulting from conflicts with supervisors was independently associated with mental health. Overall, it was concluded that job related stress unfavourably affected the wellness of nurses, not downplaying its adverse impact on the care they give to the patients they nurse. In essence, stress affects the wellbeing of nurses alongside that of their patients [27]. Another study also investigated stress issues among psychiatric ward nurses and focused on two categories of Professional Quality of Life (ProQOL), the positive compassion satisfaction, and the negative compassion fatigue, with the goal of assessing the connection of ProQOL to occupational stress and possible danger threats at a well-established mental health facility. 114 psychiatric nurses (49males /63 Females) were sampled and administered with the questionnaires examining violence exposure, ProQOL, and occupational stress. Findings of the study showed that majority of the nurses (88.6%) have had an experience of verbal abuse, and more than half (56.1%) experienced physical abuse prior to the study. ProQOL was not associated with violence exposure but was reduced by work stress and by previous exposure to violence; Health caregivers who saw their work to be very stressful had lower fulfillment from their work. In conclusion, notwithstanding that almost all the psychiatric nurses were exposed to some level of physical and verbal abuse and threats from patients and family members of patients, their ProQOL was mostly connected to occupational stress rather than to workplace violence (WPV). In essence, job stress affected the quality of life of psychiatric nurses [1].

It has been evident that social segment attributes like age, sex, conjugal status, positions and rank of medical caretakers additionally have impact on their feelings of anxiety and stress [28, 2]. It has been argued that the differences in these demographics are responsible for the varying stress experiences by nurses at a constant or varying point in time [30-32]. Stress has also been associated with sociodemographic characteristics such as gender, marital status and age of nurses [33]. Male nurses go through a lot of stress than female nurses partly because the profession is predominantly women force [18]. In Ghana for instance, the nursing profession is populated by females, therefore, most of the topmost positions are occupied by female nurses. This makes the male nurses feel being pushed around and ordered by their female "bosses"; hence they experience much stress than their female counterparts. Others also argue that young and inexperienced nurses experience great deal of stress than the aged and experienced nurses, partly because the experienced caregivers are used to the routine of the profession [34]. The nursing work

pressure and odd working schedules such as night duties and weekend duties make married nurses have conflicting roles and experience stress as result managing their homes and work duties concurrently [35]. These could be the reason behind most nurses experiencing marital problems in Ghana.

The Ankafu Psychiatric Hospital does not only care for the mentally ill but also provides general health care services, this put much unbearable workload on the psychiatric nurses working in this hospital. Ankafu Psychiatric Hospital has been experiencing untimely death, massive turnover, absenteeism and lateness among its nurses [36]. The purpose of this study was to examine the effects of stress on job performance of psychiatric nurses in the Ankafu Psychiatric Hospital in Cape Coast. The study sought to answer the research question - What are the effects of stress on the job performance of psychiatric nurses in the Ankafu Psychiatric Hospital? The study also tested these hypotheses:

H₀₁: There is no significant difference in the effects of stress on the job performance of psychiatric nurses in Ankafu Psychiatric Hospital on the basis of gender.

H_{A1}: There is a significant difference in the effects of stress on the job performance of psychiatric nurses in Ankafu Psychiatric Hospital on the basis of gender.

H₀₂: There is no significant difference in the effects of stress on the job performance of psychiatric nurses in Ankafu Psychiatric Hospital on the basis of age.

H_{A2}: There is a significant difference in the effects of stress on the job performance of psychiatric nurses in Ankafu Psychiatric Hospital on the basis of age.

H₀₃: There is no significant difference in the effects of stress on the job performance of psychiatric nurses in Ankafu Psychiatric Hospital on the basis of marital status.

H_{A3}: There is a significant difference in the effects of stress on the job performance of psychiatric nurses in Ankafu Psychiatric Hospital on the basis of marital status.

H₀₄: There is no significant difference in the effects of stress on the job performance of psychiatric nurses in Ankafu Psychiatric Hospital on the basis of status or rank.

H_{A4}: There is a significant difference in the effects of stress on the job performance of psychiatric nurses in Ankafu Psychiatric Hospital on the basis of status or rank.

2. Materials and Methods

Descriptive survey design was adopted for the study. A sample of 150 was selected from a population of 197 psychiatric nurses using simple random sampling procedure. Data were collected using questionnaire adapted from Weiman Occupational Stress Scale (WOSS). Out of the 150 questionnaires administered, 143 were returned giving 95% return rate. Data were analysed using both descriptive and inferential statistics.

3. Results

3.1. Demographic Characteristics

The demographic attributes of the respondents are presented in [Table 1](#). They cover gender, age, marital status and work rank of the respondents.

It was shown in [Table 1](#) that most of the respondents were females (92, 64.3%) while 51(35.7%) of the respondents were males. This means that there were more females in the study than males. This does not come as a surprise since there are generally more female

nurses in Ghana compared to male nurses. This therefore affirms the assertion of Cottrell (2016), that the nursing profession is predominantly a women force.

Table 1. Demographic Data of Respondents.

Item	Frequency (F)	Percentage (%)
Gender		
Male	51	35.7
Female	92	64.3
Age in years		
20-30	72	50.3
31-40	57	39.9
41-50	14	9.8
Marital Status		
Single	63	44.1
Married	80	55.9
Rank		
Staff nurse	58	40.6
Senior staff nurse	48	33.6
Senior nursing officer	27	18.9
Principal nursing officer	8	5.6
Deputy director of nursing staff	2	1.4

Source: Field survey (2021)

In terms of age, it could be seen that 72 respondents corresponding to 50.3% were within the ages 20 and 30 years. Also, 39.9% of the respondents were within the ages of 31 and 40 years while the remaining 14(9.8%) were within the ages of 41 and 50 years.

Further, it could be seen in [Table 1](#) that 80 respondents corresponding to 55.9% were married while 63 respondents corresponding to 44.1% were single. Finally, it was shown that 58(40.6%) of the respondents were staff nurses, 48(33.6%) were senior staff nurses and 27 (18.9%) were senior nursing officers. The remaining respondents were principal nursing officers (8, 5.6%) with only two respondents being at the rank of deputy director of nursing staff. The demographic characteristics show that the respondents are from a wide range of backgrounds covering every sub-group in the nursing profession.

3.2. Research Question: What are the effects of stress on the job performance of psychiatric nurses in the Ankafu Psychiatric Hospital?

This research question sought to find out the effects of stress on job performance among psychiatric nurses in the Ankafu Psychiatric Hospital. The data for this research question was on a scale of: Never=1, Seldom=2, Sometimes=3, Often=4 and Nearly Always=5. The data was analysed using mean and standard deviation. From the scoring, mean scores above 3.0 were deemed to be high, implying that the respondents often had that experience. Mean scores below 3.0 were deemed to be low and signify that the respondents rarely had that experience. [Table 2](#) indicates the results.

It could be seen in [Table 2](#) that respondent experienced mild to severe headache when they are stressed out (M=3.71, SD=SD=0.68). The respondents also indicated that they lose concentration when they are stressed (M=3.57, SD=0.69). Also, the respondents indicated that they feel exhausted even before getting to work when they get up in the morning to face the same nursing routine (M=3.49, SD=0.73). The respondents easily got angry and over reacted when stressed (M=3.45, SD=0.76).

It could be seen in [Table 2](#) that the respondents sometimes felt like finding excuses and absenting themselves from work for weeks because of their overwhelming duties (M=3.45, SD=0.77). The participants also indicated that they become forgetful when

stressed ($M=3.42$, $SD=0.68$). Further from [Table 2](#), the effects of stress included mild to severe headache, loss of concentration, exhaustion, anger and overreaction, finding excuses and absence from work and forgetfulness which affect their overall output of work.

Table 2. Effects of Stress on Job Performance among Psychiatric Nurses.

Statement	Mean	Std. Dev.
I experience mild to severe headache when I am stressed out	3.71	0.68
I feel body pains and fatigue when I am stressed	3.33	0.71
I find it difficult to sleep when I am stressed out.	3.20	0.82
I easily get angry and over react when stressed.	3.45	0.76
I become forgetful when I am stressed.	3.42	0.68
I lose concentration when I am stressed.	3.57	0.69
I neglect my patients' needs and ignore my duties when I am stressed out	3.31	0.85
When I get up in the morning and have to face another nursing routine, I feel exhausted before I even get to work	3.49	0.73
When I think of my overwhelming duties as a psychiatric nurse, I sometimes feel like finding excuses and absent myself from work for weeks.	3.45	0.77
It gets to a point where I sometimes feel like quitting my job	3.15	0.84

Source: Field Survey (2021)

3.3. Hypothesis One

H_01 : There is no significant difference in the effects of stress on the job performance of psychiatric nurses in Ankaful Psychiatric Hospital on the basis of gender.

H_{A1} : There is a significant difference in the effects of stress on the job performance of psychiatric nurses in Ankaful Psychiatric Hospital on the basis of gender.

This hypothesis sought to find out the significant difference between male and female psychiatric nurses in terms of how stress affected their job performance. The data was analyzed using an independent samples t-test with a significance level of 0.05. The assumptions of Normality and Equality of Variances were tested first.

3.4. Normality Test

It is expected that the data for independent samples t-test should be normally distributed. Normality was tested using the Kolmogorov-Smirnov and Shapiro-Wilk statistics. The results are shown in [Table 3](#).

Table 3. Tests of Normality.

Gender	Kolmogorov-Smirnov			Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.	
Effects	Male	.098	51	.200	.986	51	.808
	Female	.093	92	.146	.981	92	.193

Source: Field survey (2021)

It can be seen in [Table 3](#) that the significant values are all above .05. This implies that normality can be assumed for the data.

The Levene's test for homogeneity of variance was also assessed. [Table 6](#) summarizes the findings.

Table 6. Levene's Test for Equality of Variances.

	F	Sig
Equal variances assumed	0.435	.511
Equal variances not assumed		

Source: Field Survey (2021)

It can be observed in Table 4 that the significant value of .511 is greater than .05, the significant level. The result indicates that equality of variances can be assumed.

The results of the independent t-test are presented in Table 5.

Table 5. Results of t-Test Comparing Male and Female Psychiatric Nurses in terms of Effects of Stress.

Gender	N	Mean	SD	Df	t-value	Sig (2-tailed)
Male	51	35.67	4.81	141	2.833*	.005
Female	92	33.22	5.03			

Source: Field survey (2021); *Significant, $p < .05$

The results of the independent samples t-test are shown in Table 5. It can be observed in Table 5 that there is a significant difference between male and female psychiatric nurses in terms of the effects of stress on them [$t(141) = 2.833, p < .05$]. Males had a mean score of 35.67, while females had a mean score of 33.22. The null hypothesis which stated that there is no statistically significant difference between male and female psychiatric nurses in terms of the effects of stress is dismissed based on the findings. This implies that male and female psychiatric nurses differ in terms of the effects of stress with male psychiatric nurses ($M=35.67$) being affected more than female psychiatric nurses ($M=33.22$).

3.5. Hypothesis Two

Ho2: There is no significant difference in the effects of stress on the job performance of psychiatric nurses in Ankaful Psychiatric Hospital on the basis of age.

Ha2: There is a significant difference in the effects of stress on the job performance of psychiatric nurses in Ankaful Psychiatric Hospital on the basis of age.

The hypothesis sought to find out if there is significant difference in the effects of stress on the job performance of psychiatric nurses in Ankaful Psychiatric Hospital on the basis of age. The One-Way ANOVA was used to analyze the data at the 0.05 level of significance since there were three different age groups involved in the study. In using One-Way ANOVA, there was the need to test the normality and homogeneity of variance among the groups.

The results for the test for normality are presented in Table 6.

Table 6. Tests of Normality.

	Age	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Effects	20 – 30	.109	72	.135	.978	72	.242
	31 – 40	.069	57	.200	.986	57	.765
	41 – 50	.166	14	.200	.920	14	.218

Source: Field Survey (2021)

From the results in [Table 6](#), it can be seen that significant values are above .05. This implies that the data is normally distributed.

The results of the Levene's test for homogeneity are also shown in [Table 7](#).

Table 7. Test of Homogeneity of Variances.

Levene Statistic	df1	df2	Sig.
4.055	2	140	.191

Source: Field Survey (2021)

It is shown in [Table 7](#) that the significant level of .191 is greater than .05. This implies that homogeneity of variances can be assumed. Therefore, it is assumed appropriate to carry out One-Way ANOVA.

The results of the ANOVA test are shown in Tables 8, 9, 10 and 11.

Table 8. Descriptive Results for Different Age Groups.

Age (in years)	N	Mean	Std. Dev.
20-30	72	34.85	3.99
31-40	57	34.04	5.79
41-50	14	30.43	5.65
Total	143	34.09	5.07

Source: Field Survey (2021)

The mean and standard deviations of the different age groups are shown in [Table 8](#). Participants within the 20 to 30 years range had a mean score of 34.85 and a standard deviation of 3.99. The mean score for participants 31 to 40 years' group was 34.04 with a standard deviation of 5.79. The last group (41-50 years) had a mean score of 30.43 and a standard deviation of 5.65. From the mean scores, it is clear that there are differences among the different age groups. Specifically, it is clear that psychiatric nurses in the 20 to 30 years' age group were affected by stress more than the other age groups.

[Table 9](#) shows the results of the ANOVA test used to determine the differences between the groups.

Table 9. ANOVA Results Comparing Effects of Stress on Job Performance on the Basis of Age.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	229.140	2	114.570	4.684*	.011
Within Groups	3424.678	140	24.462		
Total	3653.818	142			

*Source: Field survey (2021); *Significant, $p < .05$*

From [Table 9](#), it is obvious that there is a significant difference in the effects of stress on the job performance of psychiatric nurses on the basis of their ages [$F(2, 142) = 4.684, p < .05$]. The probability value (p-value) of 0.011 is less than the .05 significant level. This means that there was a statistically significant difference in the mean scores of the three different age groups. The null hypothesis which stated that there was no statistically significant difference in the effects of stress on the job performance of psychiatric nurses on the basis of age was rejected. Since a significant difference was found, there was the need for a post-hoc test in order to determine which of the three mean values caused the significant difference obtained in the ANOVA results.

Tukey's Post-Hoc test was used in doing the post-hoc analysis. The main aim of Tukey's test is to find out which group in a specific sample differ from each other. The results of the post-hoc analysis are presented in [Table 10](#).

Table 10. Tukey HSD Multiple Comparisons.

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
20 – 30	31 – 40	.81213	.87687	.625	-1.2651	2.8894
	41 – 50	4.41865*	1.44466	.007	.9964	7.8409
31 – 40	20 – 30	-.81213	.87687	.625	-2.8894	1.2651
	41 – 50	3.60652*	1.47528	.041	.1117	7.1013
41 – 50	20 – 30	-4.41865*	1.44466	.007	-7.8409	-.9964
	31 – 40	-3.60652*	1.47528	.041	-7.1013	-.1117

*. *The mean difference is significant at the 0.05 level. Source: Field survey (2021)*

[Table 10](#) shows that the difference between the participants in the 20 to 30 years' group and those in the 41 to 50 years' group was statistically significant ($p < .05$). Similarly, the difference between the participants in the 31 to 40 years' group and those in the 41 to 50 years' group was statistically significant ($p < .05$). These differences are also confirmed in [Table 11](#).

Table 11. Tukey HSD Sub-Groups Comparisons (Ages).

Age	N	Subset for alpha = 0.05	
		1	2
41 – 50	14	30.4286	
31 – 40	57		34.0351
20 – 30	72		34.8472
Sig.		1.000	.806

Means for groups in homogeneous subsets are displayed.

Source: Field survey (2021)

It can be seen in [Table 11](#) that the mean scores of the respondents in the 20 to 30 years group and the 31 to 40 years' group were significantly different from those in the 41 to 50 years group. Specifically, the respondents in the 20 to 30 years' group had high mean scores implying that they were affected by more stress than the other age groups.

3.6. Hypothesis Three

H₀₃: There is no significant difference in the effects of stress on the job performance of psychiatric nurses in Ankafu Psychiatric Hospital on the basis of marital status.

H_{A3}: There is a significant difference in the effects of stress on the job performance of psychiatric nurses in Ankafu Psychiatric Hospital on the basis of marital status.

This hypothesis sought to find out the significant difference in the effects of stress on the job performance of psychiatric nurses on the basis of their marital status. The data collection instrument used to measure the effects of stress among psychiatric nurses were used to test this hypothesis. The data was analyzed using an independent samples t-test with a significance level of 0.05. This is because there were two independent groups (single and married). The assumptions of Normality and Equality of Variances were tested first.

3.7. Normality Test

It is expected that the data for independent samples t-test should be normally distributed. Normality was tested using the Kolmogorov-Smirnov and Shapiro-Wilk statistic. The results are shown in [Table 12](#).

Table 12. Tests of Normality.

	Marital status	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	Df	Sig.
Effects	Single	.075	63	.200	.980	63	.415
	Married	.100	80	.146	.976	80	.140

Source: *Field survey (2021)*

From the results in [Table 12](#), it can be seen that significant values are above .05. This implies that the data is normally distributed.

The Levene's test for homogeneity of variance was also used to assess variance homogeneity. [Table 13](#) summarizes the findings.

Table 13. Levene's Test for Equality of Variances.

	F	Sig
Equal variances assumed	0.739	.170
Equal variances not assumed		

Source: *Field Survey (2021)*

It can be observed in [Table 13](#) that the significant value of .170 is greater than .05, the significant level. The result implies that equal variances can be said to be existing among the variables.

Table 14. Results of t-Test on the Effects of Stress on Psychiatric Nurses on the basis of Marital Status.

Marital Status	N	Mean	SD	Df	t-value	Sig (2-tailed)
Single	63	32.09	3.92	141	-4.442*	.000
Married	80	35.66	5.34			

Source: *Field survey (2021)*; *Significant, $p < .05$

The results of the independent samples t-test are shown in [Table 14](#). It can be observed in [Table 14](#) that there is a significant difference between single and married psychiatric nurses in terms of the effects of stress on them [$t(141) = 2.833, p < .05$]. Married respondents had a mean score of 35.66, while single respondents had a mean score of 32.09. The null hypothesis which stated that there is no significant difference in the effects of stress on the job performance of psychiatric nurses in Ankafu Psychiatric Hospital on the basis of marital status is dismissed. This implies that single and married psychiatric nurses differed in terms of the effects of stress. From the mean scores, it was realized that married respondents were more affected than single respondents.

3.8. Hypothesis Four

H₀₄: There is no significant difference in the effects of stress on the job performance of psychiatric nurses in Ankafu Psychiatric Hospital on the basis of status or rank.

H4: There is a significant difference in the effects of stress on the job performance of psychiatric nurses in Ankafu Psychiatric Hospital on the basis of status or rank.

The hypothesis sought to find out if there is significant difference in the effects of stress on the job performance of psychiatric nurses in Ankafu Psychiatric Hospital on the basis of rank. The data collection instrument used to measure the effects of stress among psychiatric nurses were used to test this hypothesis. The One-Way ANOVA was used to analyze the data at the 0.05 level of significance since there were three different age groups involved in the study. In using One-Way ANOVA, there was the need to test the normality and homogeneity of variance among the groups.

3.9. Normality Test

Normality needs to be established for the data. In establishing normality, Kolmogorov-Smirnov and Shapiro-Wilk statistics were used. The results are presented in [Table 15](#).

[Table 15](#) shows that the data is normal considering that the significant values are all above 0.5. This means that normality can be assumed for the data.

Table 15. Tests of Normality.

	Rank	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Effects	Staff nurse	.109	58	.082	.980	58	.444
	Senior staff nurse	.125	48	.159	.970	48	.250
	Senior nursing officer	.116	27	.200	.959	27	.351
	Principal nursing officer	.164	8	.200	.937	8	.578
	Deputy director of nursing staff	.260	2	.			

Source: Field survey (2021)

The results of the Levene's test for homogeneity are shown in [Table 16](#).

Table 16. Test of Homogeneity of Variances.

Levene Statistic	df1	df2	Sig.
2.671	4	138	.085

Source: Field survey (2021)

It is shown in [Table 16](#) that the significant level of .085 is greater than .05. This implies that homogeneity of variances can be assumed. Therefore, it is appropriate to carry out One-Way ANOVA.

The results of the ANOVA test are shown in Tables 17, 18, 19 and 20.

Table 17. Descriptive Results for Different Ranks

Rank	N	Mean	Std. Dev.
Staff Nurse	58	35.62	3.94
Senior staff nurse	48	35.67	4.46
Senior nursing officer	27	30.33	5.39
Principal nursing officer	8	28.25	2.25
Deputy director of nursing	2	26.00	1.41
Total	143	34.09	5.07

Source: Field Survey (2021)

The mean and standard deviations of the different ranks are shown in [Table 17](#). Respondents who were staff nurses had a mean score of 35.62 and a standard deviation of 3.94 while respondents who were senior staff nurses had a mean score of 35.67 and standard deviation of 4.46. This was followed by senior nursing officers (M=30.33, SD=5.39), principal nursing officer (M=28.25, SD=2.25) and deputy director of nursing (M=26.00, SD=1.41). From the results, it is clear that senior staff nurses were affected more by stress than the other groups since they had the highest mean score.

[Table 18](#) shows the results of the ANOVA test used to determine the disparity between the groups.

Table 18. ANOVA Results Comparing Effects of Stress on Job Performance on the basis of Ranks.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1039.996	4	259.999	13.727*	.000
Within Groups	2613.822	138	18.941		
Total	3653.818	142			

*Source: Field survey (2021); *Significant, $p < .05$*

It can be seen in [Table 18](#) that there is a significant difference in the effects of stress on the job performance of psychiatric nurses on the basis of their ranks [F (4, 138) = 13.727, $p < .05$]. The probability value (p-value) of 0.000 is less than the .05 significant level. This means that there was a statistically significant difference in the mean scores of the different ranks. The null hypothesis that there was no statistically significant difference in the effects of stress on the job performance of psychiatric nurses on the basis of their ranks was therefore rejected.

Since a significant difference was found, there was the need for a post-hoc analysis in order to determine which of the three mean values caused the significant difference obtained in the ANOVA results. Tukey's Post-Hoc test was used in doing the post-hoc analysis. The results of the post-hoc analysis are presented in [Table 19](#).

From [Table 19](#), it can be seen that the difference between the staff nurses and senior nursing staff was statistically significant ($p < .05$). Similarly, the difference between the staff nurses and principal nursing officer was statistically significant ($p < .05$). In like manner, difference between the staff nurses and deputy director was statistically significant ($p < .05$).

Further, the difference between the senior staff nurses and the senior nursing officers was statistically significant ($p < .05$). Also, the difference between the senior staff nurses and the principal nursing officer was statistically significant ($p < .05$). Same finding was realized for the difference between senior staff nurses and deputy director.

The mean differences are depicted in [Table 20](#).

Table 19. Tukey HSD Multiple Comparisons.

(I) Rank	(J) Rank	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Staff nurse	Senior staff nurse	-.04598	.84921	1.000	-2.3934	2.3014
	Senior nursing officer	5.28736*	1.01394	.000	2.4846	8.0901
	Principal nursing officer	7.37069*	1.64139	.000	2.8336	11.9078
	Deputy director	9.62069*	3.13001	.021	.9688	18.2726
Senior staff nurse	Staff nurse	.04598	.84921	1.000	-2.3014	2.3934
	Senior nursing officer	5.33333*	1.04695	.000	2.4394	8.2273
	Principal nursing officer	7.41667*	1.66198	.000	2.8226	12.0107
	Deputy director	9.66667*	3.14085	.021	.9848	18.3485
Senior nursing officer	Staff nurse	-5.28736*	1.01394	.000	-8.0901	-2.4846
	Senior staff nurse	-5.33333*	1.04695	.000	-8.2273	-2.4394
	Principal nursing officer	2.08333	1.75189	.758	-2.7592	6.9259
	Deputy director	4.33333	3.18934	.655	-4.4826	13.1492
Principal nursing officer	Staff nurse	-7.37069*	1.64139	.000	-11.9078	-2.8336
	Senior staff nurse	-7.41667*	1.66198	.000	-12.0107	-2.8226
	Senior nursing officer	-2.08333	1.75189	.758	-6.9259	2.7592
	Deputy director	2.25000	3.44063	.966	-7.2605	11.7605
Deputy director of nursing staff	Staff nurse	-9.62069*	3.13001	.021	-18.2726	-.9688
	Senior staff nurse	-9.66667*	3.14085	.021	-18.3485	-.9848
	Senior nursing officer	-4.33333	3.18934	.655	-13.1492	4.4826
	Principal nursing officer	-2.25000	3.44063	.966	-11.7605	7.2605

*. The mean difference is significant at the 0.05 level.

Source: Field survey (2021)

Table 20. Tukey HSD Sub-Groups Comparisons.

Rank	N	Subset for alpha = 0.05	
		1	2
Deputy director of nursing staff	2	26.0000	
Principal nursing officer	8	28.2500	
Senior nursing officer	27	30.3333	30.3333
Staff nurse	58		35.6207
Senior staff nurse	48		35.6667
Sig.		.332	.146

Means for groups in homogeneous subsets are displayed.

Source: Field survey (2021)

It can be seen in [Table 20](#) that staff nurses (35.62) and senior staff nurses (35.67) had mean scores which varied significantly from the mean scores of the other rankings. Specifically, these two groups recorded the highest mean scores implying that their job performances were affected more by stress compared to the other ranked nurses.

4. Discussion

4.1. *Effects of Stress on Job Performance of Psychiatric Nurses*

The study revealed that the effects of stress include mild to severe headache, loss of concentration, exhaustion, anger and overreaction, finding excuses and absence from work and forgetfulness. When psychiatric nurses are stressed, they are likely to experience some physiological issues like headaches. Psychiatric nurses are also more likely to feel exhausted and thus, lose concentration with the occurrence of continued stress experience. Because of this, psychiatric nurses have the tendency to be angry and overact in their interactions with patients and their families. Moreover, when psychiatric nurses experience more stress there is the likelihood that they would get to a point where they would want to stay away from work. This can lead to absenteeism and tardiness even when they show up at work. At the workplace, too much stress can also cause psychiatric nurses to be forgetful. This can be dangerous to the delivery of health care since psychiatric nurses may not be in the best position to provide the best of care to their patients. The findings of the current study support previous study on correlation among occupational stress, caring behaviours and their quality of life in association to health and showed that occupational stress affected nurses' health-related quality of life negatively and also affected the health and wellbeing of patients [27]. Another study also examined the relationship between stress, coping, and the combined influences of stress and coping abilities on health and work performance found that perceived stress influenced the health of nurses [16]. From the results discussed, it is clearly indicated that the experience of stress among psychiatric nurses can be detrimental to them and also to the patients. In the long run, the effects can make the entire psychiatric health care delivery system ineffective.

4.2. *Gender and Effects of Stress*

The study revealed that there was a significant difference between male and female psychiatric nurses regarding the effects of stress on their job performance. This implies that male and female psychiatric nurses differed in terms of the effects of stress with male psychiatric nurses being affected more than female psychiatric nurses.

The findings are in line with a research conducted a cross – sectional study using a convenience sampling of 250 psychiatric nurses and the results showed that there was a significant difference in stress experiences on the basis of gender [37]. Also, in line with the current study, male psychiatric nurses were identified to experience job related stress than female psychiatric nurses in a survey conducted in Ghana using 105 nurses from Ridge and Pantang hospitals [38]. It was revealed that male psychiatric nurses enter into the profession with the aspiration to gain the grounded qualification to enter the medical school as a continuum with little knowledge that the two professions are totally different. This generates frustration and disappointments in male psychiatric nurses when the situation does not go as intended for them. Furthermore, in a descriptive survey conducted in Japan with 150 participants, male psychiatric nurses tend to have higher level of stress in the nursing profession which is dominated by females, owing to the fact that women seem to hold the higher ranks, which comes with prestige and higher salaries in the profession than the male workers to whom much is expected [39]. The differences observed could be attributed to the variation in the instrumentation or sample background attributes. Regardless, it is clear in the studies reviewed that there is a gender difference in how stress affects psychiatric nurses.

4.3. *Age and Effects of Stress*

The study found that there is a significant difference in the effects of stress on the job performance of psychiatric nurses on the basis of their age. The null hypothesis that there was no statistically significant difference in the effects of stress on the job performance of

psychiatric nurses on the basis of their age was rejected. The Post-hoc test revealed that the psychiatric nurses in the 20 to 30 years' group had high mean scores implying that they were more affected by stress than the other age groups. In essence, younger psychiatric nurses were more affected by stress than older psychiatric nurses.

The findings are in line with several previous findings that investigated the impact of stress among psychiatric nurses in Iran. The result of the cross-sectional survey indicated that the younger the participant, the higher the levels of stress experienced due to too much workloads pushed on them. It was also evident that high levels of stress were strongly correlated with youthful resilient psychiatric nurses who were not used to the demanding nature of the nursing profession [28]. Similarly, similar study evaluated the role of stress among psychiatric nurses and psychiatric nursing managers in a comparative study. It was indicated that there was a statistically significant negative relationship between the ages of participant and stress [40]. The results also showed that younger psychiatric nurses (below age 30) experienced higher levels of stress due to their inability to socialize with friends and family like other professions, than their older colleagues (above 30). In addition, a cross-sectional survey conducted in Accra on the causes of stress and job satisfaction among nurses at the Ridge and Pantang hospitals in Ghana, with 105 participating nurses, using the Expanded Nurses Scale, revealed that younger nurses below the age of 30 years indicate being stressed than the older nurses above age 30. This they further explained owing to their inability to do multi tasks concurrently [38]. Another similar study evaluated job stress and self-efficacy among psychiatric nurses working in mental health hospital in Cairo, Egypt. The results indicated a positive correlation between stress and age. Again, it was identified in a cross-sectional survey conducted in Ghana with 365 respondents who worked in 12 major healthcare facilities, that high salary benefits and respect attached to maintaining a long career, makes long serving nurses less stressed out than the inexperienced and less serving nurses [42].

4.4. Marital Status and Effects of Stress

The study found that there was a significant difference between single and married psychiatric nurses in terms of the effects of stress on their job performance. The null hypothesis which stated that there is no significant difference in the effects of stress on the job performance of psychiatric nurses in Ankaful Psychiatric Hospital on the basis of marital status was rejected. This implies that single and married psychiatric nurses differed in terms of the effects of stress. Specifically, married psychiatric nurses were more affected by stress than single psychiatric nurses. The findings is confirmed in several different studies. It was evident in a study conducted in Australia that, married psychiatric nurses tend to experience high level of stress than the single psychiatric nurses working in the same organisation due to the conflicting role of family responsibilities and duties at work [43]. Also, due to the nature of the psychiatry job; unfriendly working hours, most married psychiatric nurses have issues with their spouses and are unable to keep their homes and nurture their children which sometimes lead to divorce. This situation places much stress on the married psychiatric nurses than the unmarried nurses, as they try to save their homes and also at the same time performing their much demanding duties at work [44].

In support of the findings of the study, previous study revealed that, stress levels are high on married psychiatric nurses than single psychiatric nurses because, most often than not, married psychiatric nurses are being pressured and frustrated by their spouses who cannot stand the pressure of taking care of their children alone while their partners are on night duties, holiday schedules and even weekend duties [45]. Sometimes, married psychiatric nurses are more stressful than unmarried psychiatric nurses because marriage comes with family and other social responsibilities. In addition, married psychiatric nurses are unable to attend funerals, marriage ceremonies and other social functions due

to work and even when off duty, they are unable to attend such functions because they are to care for their immediate family [46].

4.5. Status or Rank and Effects of Stress

Finally, the study showed that there was a significant difference in the effects of stress on the job performance of psychiatric nurses on the basis of their ranks. The null hypothesis which stated that there was no statistically significant difference in the effects of stress on the job performance of psychiatric nurses on the basis of their ranks was therefore rejected. The post hoc test showed that the job performances of staff nurses and senior staff nurses were the most affected by stress compared to the other ranked nurses. The implication is that the level of rank or status of psychiatric nurses can play a role in their experience of stress. The finding is realistic because in most hospitals in Ghana, staff nurses and senior staff nurses are those who most duties are given to carry out at the hospital. They are in charge of the day-to-day duties of healthcare delivery. As a result, they are at the forefront of all the pressures that take place daily at the hospital.

Several studies have been carried out on this phenomenon to establish whether the ranking of employees are significant in terms of the experience of stress. For instance, an earlier study revealed that psychiatric nurses with higher ranks (senior nursing officer, principal nursing officer, chief nurse) have little and flexible work load, since they mostly delegate activities and task to other ranks nurses who are subordinates to them, hence less stressful events experienced at work. As a result, they were less affected by stress at the workplace [47].

Also, it was reported in a study using 155 psychiatric nurses in Ghana that participants who were senior nursing officers, principal nursing officers and chiefs complained of little or no stress at work. This is because these ranks enjoy holidays off, weekend duty off and no night duty schedules, unlike the staff nurses who follow ridged shifts, work on weekends and on holidays with no extra income or motivations [48].

5. Conclusion

The study concluded that the experience of stress psychiatric nurses go through was detrimental to their job performance. The effects were physiological in terms of leading to sicknesses, causing distractions and exhaustion which ultimately lead to poor healthcare delivery in psychiatric hospitals. The study also indicated that male psychiatric nurses are more stressed as compared to female psychiatric nurses. This means it is likely that female psychiatric nurses are able to better deal with the effects of stress on their jobs. The study revealed that, in terms of age, younger psychiatric nurses experience more stress compared to the 8older psychiatric nurses. In essence, age is of important consideration in terms of how stress affects job performance of psychiatric nurses. It is further discovered from the study that married psychiatric nurses have their job performance affected by stress more than single psychiatric nurses. This means that marital status should be of important consideration when considering the extent to which stress affects job performance of psychiatric nurses. The study also concluded that, psychiatric nurses of low ranks were more affected by stress compared to psychiatric nurses of higher ranks. Specifically, psychiatric staff nurses and senior staff nurses have their job performance affected more than highly ranked psychiatric nurses.

6. Recommendations

The following recommendations were made for the study:

- Hospital authorities should structure the work schedules of psychiatric nurses in such a way that the nurses can get intermittent periods of leave away from work since too much workload without breaks or holidays was considered a major cause of stress.

- Hospital authorities should ensure that psychiatric nurses are provided with the needed facilities and logistics needed to be able to effectively carry out their duties as psychiatric nurses.
- Younger psychiatric nurses should be given the needed support by hospital authorities and older psychiatric nurses. This can help them manage or deal with the stress at the workplace since the study found younger psychiatric nurses to be affected by stress more than older psychiatric nurses.
- Hospital authorities should organise stress management workshops specifically for married psychiatric nurses to equip them with the skills needed to deal with stress at the workplace. This is because the study found that married psychiatric nurses had their job performances affected by stress more than single psychiatric nurses.
- Hospital authorities should hold open forums and workshops for psychiatric nurses of low ranks to listen to their concerns and help them deal with stress at the workplace since their job performances were affected by stress more than psychiatric nurses of high ranks.

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