Workload Stress and Performance of Nurses in Government Hospitals in Kenya.

Susan K. Lewa, (PhD) [1], Miriam Mutuku-Kioko[2] (MBA) and Peter M. Lewa, PhD[3]

[1]Jomo Kenyatta University of Science and Technology,
[3] Chandaria School of Busi-ness, USIU - Africa and MHA California, USA

Corresponding Email: lewapm@usiu.ac.ke or lewapm@yahoo.com

Abstract

This paper looks at workload stress to establish how it influences nurses' levels of performance, morale and clinical outcomes in government hospitals in Nairobi Kenya. The study design utilized for this research is descriptive survey and correlation design. The key objective of the study is to investigate the relationship between work load stress and performance among public hospital workers in Kenya. A sample of 845 nurses was drawn from all the six levels of government hospitals in Nairobi County using Taro Yamanes sample size selection formula. Data collected was analysed using both descriptive and inferential statistical techniques. Correlation analysis was employed to explore the direction and magnitude of relationship between various constructs of work load stress and employee performance. The research findings show that work load stress influences performance of nurses. Majority of respondents (79.8%) indicated that work load stress factors influence their performance "to a great extent" (11.2%) indicated "to a small extent". These responses were confirmed through inferential statistical analyses as discussed in the paper. Based on the findings the study recommends that adequate and modern equipment should be provided to nurses to aid them in their work and more nurses should be employed to help reduce workload stress. This is expected to lead to the boasting of the morale of nurses in government hospitals perhaps leading to fewer strikes.

Key terms: Stress, stressor, workload stress

Introduction

Stress is an important aspect in work situations. It occurs in every aspect of the practice of management and leadership. But what is stress? Stress is a concept that has been studied for almost 100 years.

Early studies on stress were done within the field of medicine. During the 1930s, 40s and 50s, Hans

Selye (1956) was responsible for the pioneering work on stress.

The National Union of Teachers (UK) indicates the ways in which stress manifests itself:

The effects of stress can be manifested in many different ways, including physical effects such as raised heart rate, headache, dizziness, palpitations, skin rashes, aching neck and shoulders and lowering of resistance to infection. Over a long period stress may contribute to chronic health problems such as heart disease and stomach ulcers. Various psychological and behavioural changes affecting work performance and interpersonal relationships may also be noticed by stressed individuals' colleagues, including inability to concentrate, overworking, irritability or aggression, becoming withdrawn or unsociable, or reluctance to accept constructive criticism and advice (www.teachers.org.uk).

From the foregoing we can get a pretty good idea of what stress is. Stress is defined as a reaction to a situation in which you perceive you will be unable to cope successfully and which results in unwanted physical, mental or emotional deterioration (Armstrong 2009; Lewa in Rono, 2002).

As employees, including nurses, engage themselves in work, they meet stressful situations. Work-related stress remains a significant problem in many countries. For example, in Great Britain, it accounts for around a third of all new cases of work-related ill health. In total, an estimated 10.5 million working days were lost to work-related stress, depression and anxiety in the financial year

2005/06 in the UK (HSE, 2006). During that period, an estimated 420,000 reported that they were suffering from work-related stress to an extent that they became very ill. Stress has ill effects on the individual, businesses, productivity and performance levels, and organizational image and reputation. In Kenya, information on illnesses arising from stress and how this is assessed is not available to the best knowledge of this researcher. The assessment of stress in the workplace offers employers and others the opportunity to assess the degree of excessive demand as indicated by emotional, behavioural, cognitive and physical symptoms. An assessment of stress can also assist in the identification of causes of such excessive demand and any consequent adverse reactions. The discipline of workload stress has not been studied widely in Kenya.

The late Psychiatrist Dr. Gateere had previously argued that stress contributed more to deaths in in Kenya than HIV AIDS and Malaria combined (citation) Further, he had also stated that stress had killed more people in the world than the two world wars combined (Lewa in Ruthie Rono, 2002). Stress is thus a very important issue of concern. Physical vitality and emotional resilience make it easier to cope with stressful interpersonal situations, such as a troubled subordinate, an uncooperative peer, a punitive boss, or a hostile client. Tolerance of stress is especially important for nurses who must deal with adverse situations where the reputation of the nurse, or the lives of patients, may hang in the balance. In a politically charged environment as in Kenya this is of particular significance. In addition to making better decisions, a nurse with high stress tolerance and composure is more likely to stay calm and provide confident, decisive direction to others and subordinates in a crisis (Ojokukuand Salami, 2011; HSE, 2006; Yukl, 1998). Dealing with stress would naturally lower hospital bills for government employees and individuals.

It is against this background that this study therefore designed to specifically examine the issue of stress among nurses in government hospitals in Nairobi.

2. Objectives of the study

The broad objective of this study was to contribute towards the subject of stress in Kenya and to provide insights as to how workload stress may impact performance of nurses in government hospitals. In order to achieve this broad objective the research addressed the following specific objectives:

a) To understand the main sources of stress affecting nurses in government hospitals

b) To assess level of workload stress among nurses using the nurses' reported scores and their perception

c) To analyze how workload stress affects the performance of nurses

3. Hypothesis

The study was guided by the following hypothesis:

Ho: There is no significant relationship between workload stress and the performance of nurses Ha: There is a significant relationship between workload stress and the performance of nurses

4. Literature Review

There is no agreed definition of the term workload stress. While some writers, for example

use the term to mean input loading, others take it to mean how hard one has to work. Still others take it to mean speed and accuracy of response (Armstrong, 2010; Hicks and Adams, 2003). Some studies have considered workload stress to include physiological and psychological abnormalities and work situation problems caused by overloading physical and psychological demands (stressors) at work (Pool, 2000). The study of stressors is imperative, argues Pool (2000), because of its potential relationship with job performance, organizational commitment, and job satisfaction.

In this study work load stress is looked at in terms of physiological and psychological abnormalities and work situation problems as well as; the total of the task demands placed on the worker by the system which he/she is part of (Armstrong, 2010; Hicks and Adams, 2003). These authors observe that demands placed on a worker may be overt or covert, physical or mental, perceptional or oral or even a combination of all these. It is generally agreed that among the stress factors that influence performance, positively or negatively, are job demands/workload; task characteristics; and the broad category of situational influence (Armstrong, 2010; Hicks and Adams, 2003).

In a study conducted at the university of Illorim teaching hospital in Nigeria nurses were found to be the health workers who felt most overloaded with work and were among the most stressed (Ojokuku and Salami, 2011). Other studies by for example, Pillay (2009 established that work dissatisfaction is positively correlated to increased absenteeism, turnover, nurse morale, productivity and clinical outcomes. Both studies further concluded that stress is a key factor affecting employee levels of work satisfaction. A cross-cultural study by Miller et al., (2000), using data from South Africa, United Kingdom, United States of America and Taiwan while examining the interaction of gender and culture in managers' experiences of work stress found no significant differences in sources of work stress (stressors) and when the sample as a whole were examined, but there were differences in the consequences of work stress (strain) for male and female managers.

Wong et al., (2002) found that perceived sources of work stress in Chinese offshore workers were different from those reported in earlier studies on UK offshore workers. The study suggested that more cross-cultural comparative studies would be useful in elucidating the influence of socio-cultural and environmental factors on stress.

5. Research Methodology

This study utilized a descriptive design framework to investigate the relationship between work load stress and the performance of registered nurses in all the levels of government hospitals Nairobi County in Kenya. The target population of interest in this study was 845 registered nurses working in Government Hospitals in Nairobi County in Kenya. Taro Yamane's sample size selection formula was used to draw the target population. Nurses in the hospitals were deemed to be representative of all registered nurses working in

government hospitals in Kenya as they covered all the six levels of hospitals in Kenya. The sample of the study consisted of Registered Nurses who were at work at the time of the sampling and were willing to participate in the research. Registered Nurses are professionals who have different responsibilities, experiences, and job titles and sharing common factors such as education, professional training, and professional practice. Experiences make Registered Nurses a homogenous group who provide healthcare services, support, and education to patients and their families. Registered Nurses provide unique perspectives and variety in experiences about their working environments, tools, remuneration and incentives, and job related stress.

Data was collected using a structured questionnaire, focus group interviews and observation. A pilot survey was carried out before commencement of the study to clarify the research questions. Demographic statistics such as number of years in employment, educational background, gender were analysed using descriptive statistical techniques. Further analysis was undertaken using both correlation and Logit regression analysis to determine not only the degree and direction but also the significance of the relationships.

6. Validity Tests

In this study content validity was used to assess the validity of the instruments by assessing the adequacy, appropriateness, inclusiveness, and relevancy of the questions to the subject under study. To reduce the threat of selection bias to internal validity this study used a systematic sampling process which is a variation of simple random sampling. To ensure external validity in this study, registered nurses were selected from various departments and wards in each hospital. Further nurses were also drawn from the six (6) levels of government hospitals in Nairobi County, which is representative of all the levels in government hospitals in Kenya. To this end, the study used Cronbach alpha to test for reliability of the construct namely workload stress.

7. Reliability tests

The study tested for reliability of the workload stress construct and found that the Cronbach alpha was 0.951 with 7 items (Table 1.3). The Cronbach alpha of 0.951 is greater than the lower bound level of Cronbach alpha (0.70) implying that the work load stress construct is reliable.

Table 1.1. Reliability test for workload stress

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
0.951	0.914	7

8. Findings and Discussion

8.1 Demographic statistics

8.1.1 Distribution of hospitals by respondents

The respondents in the study were nurses, selected from three categories of hospitals constituted from the six levels of government hospitals in Kenya. The survey randomly distributed 1087 questionnaires; but only 780 duly filled questionnaires were accepted upon scrutiny. They were distributed as follows: Category III had 400 duly filled questionnaires; Category 11 had 180; and category 1 had 200, resulting in a return rate of 73.6%. According to Polit and Beck (2004) a return rate of 73.6% is a very good return rate. The return rate was statistically representative, therefore, enhancing generalization of the research results. However, the statistical results were triangulated with extensive literature to draw lessons learnt from other similar works where research in the factors influencing performance in the health sector had been carried out.

Figure 1.1 presents the distribution of respondents by hospital category. 51 % was taken by Category 111 (longest bar). Category 11 took 23% (shortest bar) while category 1 took 26% (2nd longest bar).

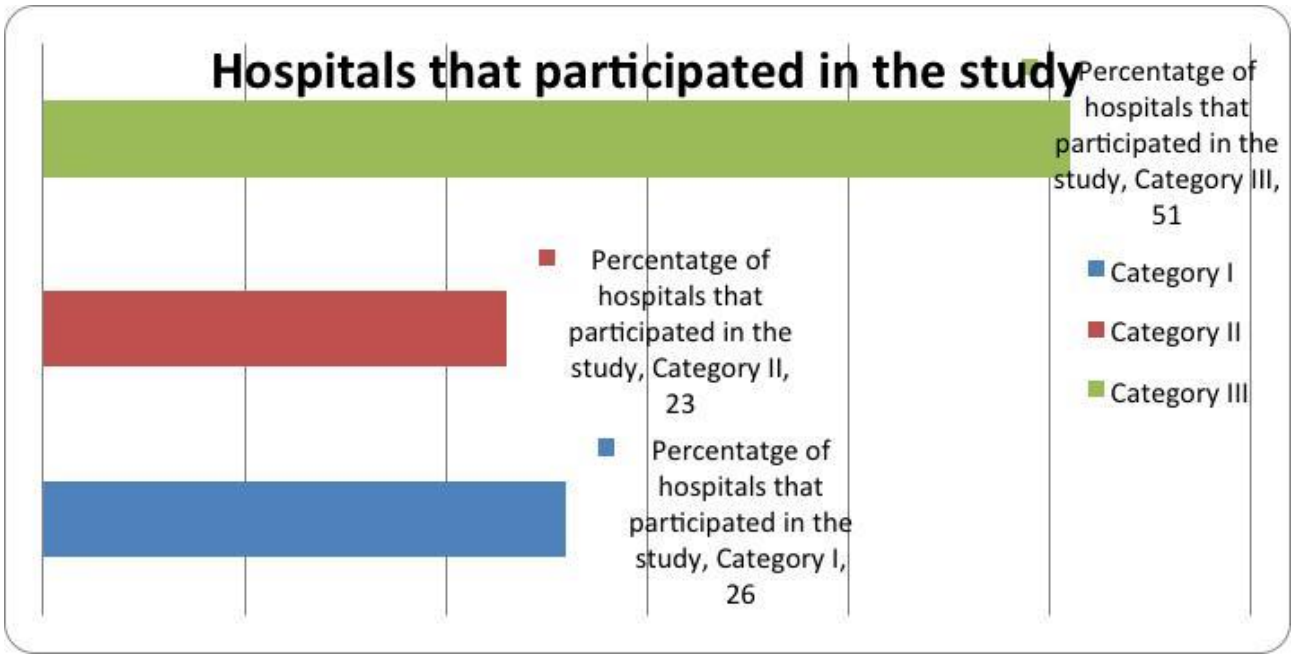

Figure 1.1: Distribution of hospitals by respondents

The information in the figure above can be presented in a table (1.2) for further clarity as follows:

Table 1.2: Distribution of Hospitals by respondents

Category of Hospital	**Level of hospital (1 – 6)**	**Respondents**	**Percentage**
Category I	2,3	200	26
Category II	4	180	23
Category III	5,6	400	51
TOTAL		780	100

The data in the figure and the table show that majority of the respondents (51%) were drawn from category III hospitals and the least number of respondents (23%) were drawn from category II hospitals.
Category 1 hospitals took 26%. The sample was deemed adequate for the purposes of the research.

8.1.2 Age Distribution of Respondents

The researcher sought to determine the relationship between age and work output or performance. The responses are summarized and presented in table 1.3.

Table 1.3: Age Distribution of Respondents

Age Category	**Frequency**	**Percent**
20 years or lower	17	2.2
21-29 years	212	27.2
30-39 years	369	47.3
40-49 years	152	19.5
50-59 years	30	3.8
Total	**780**	**100.0**

The findings in table 1.3 indicate that majority of the respondents (47.3%) were aged between 30 and 39, followed by those aged between 21 and 29 years (27.2%) and the age of between 40-49 had 19.5% of the nurses. The least number of respondents were in age bracket of 20 or lower (2.2%) while those aged 50 to 59 constituted (3.8%). The results could be relied upon because of the cumulative experience of nurses in the survey even though we know that age does not necessarily influence performance (Fisher et al., 2003:495). It is the cumulative experience that was of interest in this research and not necessarily how old a respondent was.

8.1.3. Gender Distribution of Respondents

Both gender (Male and female) are presumed to have equal abilities when deployed to perform given nursing tasks. The study sought to determine the gender distribution of the nurses in the hospitals that participated in the study. The responses are summarized and presented in figure 1.2.

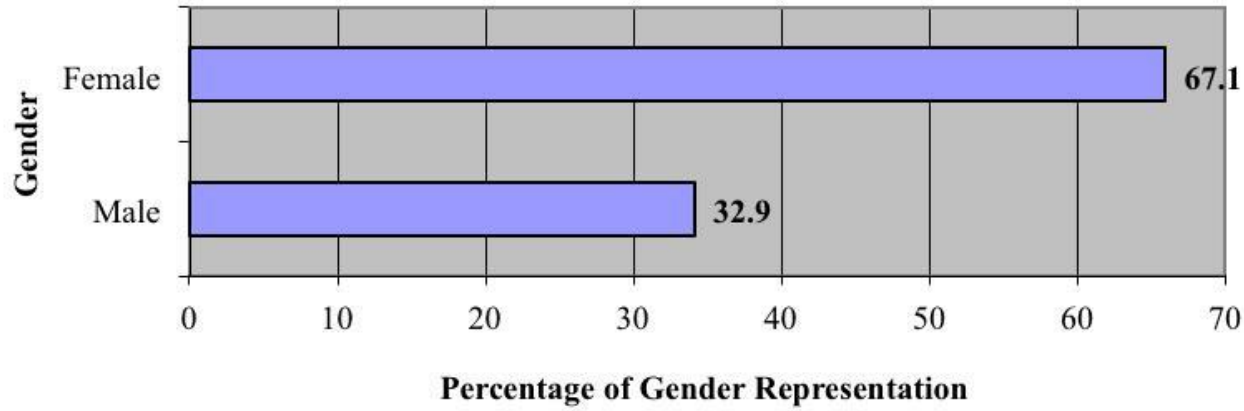

Figure 1.2: Gender Distribution of Respondents

The findings in figure 4.2 show that majority of the respondents (67.1%) were female, while 32.9% were male. This finding indicates that the nursing profession is female dominated. This sex distribution of the respondents is reflective of the overall distribution in the nursing profession where there is a skewed enrollment in favor of females in respect to the traditional gender choice of nursing courses where females are the majority. This correlates with the literature which indicates that the nursing work force in the health sector is mostly female (WHO, 2002c). Thus, the nursing profession is female dominated as is expected and as is the norm everywhere.

8.1.4. Highest Academic Qualification

The study sought to establish the highest academic qualifications of respondents in order to establish the skills and knowledge base of the nurses. The responses are summarized and presented in table 1.4

Table 1.4 Highest Academic Qualification

Academic Qualification	Frequency	Percent
O" level	48	6.2
Certificate	45	5.8
Diploma	552	70.8
Bachelor's Degree	61	7.8
Others	74	9.5
Total	**780**	**100.0**

The findings in table 4.9 indicate that majority of the nurses (70.8%) had attained a diploma in nursing, followed by 7.8% who had other type of qualifications and those who had a Bachelor's degree were 7.8%. The respondents who had attained "O" Level qualifications constituted 6.2%. This suggests that majority of nurses had acquired more than the basic ordinary level training in nursing at diploma level but majority have not received higher education and training at degree level.

8.1.5. Number of years worked as Registered Nurses

The respondents were asked to indicate the number of years they had worked as registered nurses. The responses are summarized and presented in table 1.5.

Table 1.5: Number of years worked as a Registered Nurse

Number of years worked	Frequency	Percent
0-10 Years	330	42.3
11-15 Years	362	46.4
16-20 Years	88	11.3
21-25 Years	0	0
26 Years and over	0	0
Total	**780**	**100.0**

The findings in table 1.5 indicate that majority of the respondents (46.4%) are those who had worked as registered nurses for a period 11 to 15 years, followed by 42.3% who had worked as registered nurses for a period of 10 years and below. 11.3% of the nurses had worked as registered nurses for a period between 16 and 20 years while no nurse had experience as a registered nurse for more than 20 years. The extensive experience in the profession provides a solid back ground for nursing activities. What is noteworthy is that the cumulative experience of the respondents who had worked for more than 10 years is substantial. This then suggests that the responses they gave on the issues of human resource factors affecting performance in their work could be relied upon.

8.1.6. Period of time respondents worked in the current hospital

The respondents were asked to indicate the period of time they had worked in the same hospital. The responses are summarized and presented in table 1.6.

Table 1.6: Period of time respondents worked in the current hospital

Time Period (Years)	Frequency	Percent
0-5 Years	304	39.0
6-10 Years	138	17.7
11-15 Years	252	32.3
16-20 Years	86	11.0
21-26 Years	0	0
Total	**780**	**100.0**

The findings in table 1.6 indicate that majority of the respondents (39.0%) had been in their current place of work at the same hospital for up to 5 years or less, another 32.3% had been in their current place of work for between 11 and 15 years and 17.7% had been in their current place for between 6 and 10 years. Another 11.0% of the respondents had been in their current employment for a period between 16 to 20 years while none had been in their current employment for a period beyond 21 years. Cumulatively majority of nurses had been with one hospital for a period of time (5 years and below) suggesting that once deployed in a government hospital nurses stayed only for minimum period to gain experience and then moved on perhaps to look for greener pastures.

8.1.7. Workload Stress and Performance outcome by hospital category

This section presents the results of the effect of workload stress on performance by category I and II Hospitals

8.1.7.1. Work Load Stress and Performance outcome in category I Hospitals

The study sought to assess the effects of workload stress on the performance of nurses in category I Hospitals. Workload Stress effect was measured by the respondents (nurses) assessment on the extent to which work load stress influenced job performance. The results are as shown in Table 1.7 below.

Table 1.7: Extent to which work load stress influence performance in Category I Hospitals

Extent to which work load stress factors influence job performance	Frequency	Percent
To no extent	0	0
To a small extent	10	5.0
To a moderate extent	28	14.0
To a great extent	43	21.5
To a very great extent	119	59.5
Total	200	100

It is clear from the findings in Table 1.7 that majority of the respondents (59.5%) indicated that work load stress factors influence job performance "to a very great extent", followed by (21.5%), who indicated "to a great extent". Further, the respondents were asked to indicate their perception of possible effects of work load stress on the quality of health care provision in their respective hospitals. The responses are summarized and presented in table 1.8.

Table 1.8 Perception on influence of work load stress factors on performance in Category I Hospitals

Statements on influence of work load stress factors on job performance	**All the time (%)**	**Most of the time %**	**Sometimes %**	**Occasionally %**	**Never %**	**Total %**
Tense	0	6.5	52.5	32.0	9.0	100
Calm	0	16.0	35.5	45.5	3.0	100
Relaxed	0	18.0	30.5	34.5	17.0	100
Worried	2.5	9.5	33.0	30.0	25.0	100
Uneasy	2.5	5.5	35.5	28.5	28.5	100
Contented	11.0	4.0	48.5	26.5	10.0	100
Tired	8.0	26.5	36.5	24.0	5.0	100

Key: 5 = All the time……1 = Never

Findings in table 1.8 indicate that 11.0% of the nurses were tired at all time while 26.5% stated they were tired most of the time. Moreover, 28.5% of the nurses indicated they were never uneasy. One can therefore discern from these findings that that according to the nurses stress factors were an important part of their operations. This conclusion is supported by literature that exists on the issues of stress and job performance (Ojokuku and Salami, 2011; Pillay, 2009; Jamal, 1984; Rabinowitz and Stumpf, 1987; Pool, 2000).

8.1.7.2 Work Load Stress and performance in Category II Hospitals

The study also assessed the effects of workload stress on the performance of nurses in category II Hospitals. Similar workload Stress and employee performance constructs used for category I hospitals were employed in the context of category II. The results are as shown in Table 1.9.

Table 1.9: Extent to which work load stress influence performance in Category II Hospitals

Extent to which workload stress factors influence job performance	**Frequency**	**Percent**
To no extent	0	0
To a small extent	10	5.6
To a moderate extent	24	13.3
To a great extent	43	23.9
To a very great extent	103	57.2
Total	**180**	**100**

Findings in table 1.9 show that majority of the respondents (57.2%) indicated that workload stress factors influence job performance "to a very great extent", followed by (23.9%), who indicated "to a great extent." The respondents were further asked to show their perception of possible effects of work load stress on the quality of health care provision in their respective hospitals. The responses are summarized and presented in table 1.10.

Table 1.10 Perception of Influence of work load stress factors on performance in Category II Hospitals

Statements on influence of work load stress factors on job performance	**All the time (%)**	**Most of the time %**	**Sometimes %**	**Occasionally %**	**Never %**	**Total %**
Tense	0	5.0	55.6	29.4	10.0	100
Calm	0	16.7	37.8	41.1	4.4	100
Relaxed	0	19.4	28.3	35.0	17.2	100
Worried	2.2	11.1	36.7	26.7	23.3	100
Un easy	2.2	6.7	34.4	28.9	27.8	100
Contented	9.4	5.6	47.8	26.7	10.6	100
Tired	9.4	27.8	36.7	23.3	2.8	100

Key: 5 = All the time……1 = Never

Findings in table 1.10 show the significance of stress factors in respect to work performance.

8.1.7.3 Work Load Stress and Performance outcome in Category III Hospitals

The study produced the findings shown in table 1.11 on "the extent to which workload stress influenced job performance in category III hospitals in Kenya.

Table 1.11 Extent to which work load stress influences performance in Category III Hospitals

Extent to which work load influences job performance	Frequency	Percent
To no extent	0	0
To a small extent	28	7.0
To a moderate extent	58	14.5
To a great extent	55	13.8
To a very great extent	259	64.8
Total	**400**	**100**

Findings in table 1.11 show that majority of the respondents (64.8%) indicated that work load stress factors influence job performance "to a very great extent", followed by (14.5%), who indicated "to a moderate extent." Further, the respondents were asked to show their perception of possible effects of work load stress on the quality of health care provision in their respective hospitals. The responses are summarized and presented in table 1.12. They indicate that stress is significant in the work place of nurses.

Table 1.12: Perception on Influence of work load stress factors on performance in Category III

Hospitals

Statements on influence of work load stress factors on job performance	All the time (%)	Most of the time %	Sometimes %	Occasionally %	Never %	Total %
Tense		0.2	58.0	35.0	6.8	100
Calm	0	13.2	45.8	40.8	0.2	100
Relaxed	0	20.2	39.5	20.8	19.5	100
Worried	0	6.2	33.0	33.5	27.2	100
Un easy	0	0	26.0	34.0	40.0	100
Contented	6.2	6.2	59.2	21.5	6.8	100
Tired	0	25.0	37.5	31.2	6.0	99.8

Key: 5 = All the time……1 = Never

Overall, results for Category II hospitals presented earlier show that the stress key factors

included poor leadership; poor remuneration; high staff turnover; inadequate working tools and equipment; harassment by hospital administrators; poor patient attitude; lack of motivation; and lack of team work. For Category III hospitals these factors included work load/too much work; unavailability of working tools and equipment; unavailability of supplies; overcrowding of patients; staff shortage, lack of training, and leadership and management problems.

Further analysis was undertaken using Logit regression models to examine the effect of various demographic factors. Table 1.13 reports the threshold parameters and coefficient from ordered logitmodel of category I hospitals.

Table 1.13: Parameter Estimates for Category I Hospitals

Coefficient			Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[performance score = 1]	-2.807	.932	9.064	1	.003	-4.635	-.980
	[performance score = 2]	-1.693	.926	3.348	1	.067	-3.507	.121
	[performance score = 3]	-.131	.922	.020	1	.887	-1.938	1.676
Location	Age	-.135	.125	1.153	1	.283	-.380	.111
	Gender	-.351	.201	3.041	1	.081	-.746	.044
	Education qualification	-.145	.136	1.128	1	.288	-.411	.122
	Work experience	.011	.155	.005	1	.942	-.293	.316
	Work environment	.130	.110	1.399	1	.237	-.085	.345
	remuneration	-.178	.085	4.413	1	.036	-.345	-.012
	work load stress	-.010	.122	.007	1	.932	-.250	.229

The results reveal that the threshold parameter one has a value of -2.807 while threshold parameter two has a value of -1.693 are statistically significant at 5 percent significance level. The demographic factors used in the ordered logit regression were age, gender, education and work experience of the nurse, factor scores for work environment, remuneration and workload stress. The result further shows that gender and remuneration are statistically significant while age, education and work experience of the nurse and factor scores for work environment and workload stress are statistically insignificant. The coefficient for gender of the nurse has value of -0.351 that is significant at 10 percent significance level.

This implies that the performance of female nurses is far much better than that of their male counterparts.

The coefficient for remuneration (-0.178) is significant at 5 percent significance level. This implies that a one unit increase in remuneration has a 0.178 probability decrease in the performance of the nurse. This could be explained by the fact that nurses in Kenya do not prioritize monetary reward as a way of motivating them. Regarding Category II, Table 1.14 presents regression results of the Logit regression analysis using the same demographic factors.

Table 1.14: Parameter Estimates for Category II Hospitals

Coefficient			Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[performance score = 1]	-3.267	1.269	6.624	1	.010	-5.755	-.779
	[performance score = 2]	-2.237	1.256	3.174	1	.075	-4.698	.224
	[performance score = 3]	-.154	1.241	.015	1	.901	-2.587	2.279
Location	Age	-.183	.201	.831	1	.362	-.576	.210
	Gender	.093	.324	.083	1	.773	-.542	.728
	Education qualification	.148	.229	.415	1	.520	-.302	.597
	Work experience	.072	.265	.074	1	.785	-.448	.592
	Work environment	-.049	.175	.079	1	.778	-.393	.295
	Remuneration	-.056	.134	.178	1	.673	-.319	.206
	Work load stress	-.294	.192	2.331	1	.127	-.671	.083

Results show that both the threshold parameter with a coefficient of -3.267 and threshold parameter two with a value of -2.237 that statistically significant at 10 percent significance level. Findings further shows that though the independent variables are jointly significant, there is none that is statistically significant on its own in explaining performance of the nurse. Thus age, gender, education and work experience of the nurse and factor scores for work environment, remuneration and workload stress are all statistically insignificant. These results suggest the need to consider the whole sample other than separating each category of hospital. Last but not least, findings from Category III hospitals are shown in Table 1.15.

Table 1.15: Parameter Estimates for Category III

Coefficient			Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[performance score = 1]	.868	1.208	.517	1	.472	-1.499	3.235
	[performance score = 2]	1.997	1.214	2.707	1	.100	-.382	4.376
	[performance score = 3]	3.327	1.228	7.341	1	.007	.920	5.734
Location	Age	.391	.170	5.274	1	.022	.057	.725
	Gender	.000	.294	.000	1	.999	-.577	.576
	Education qualification	-.127	.198	.411	1	.522	-.514	.261
	Work experience	.016	.216	.005	1	.943	-.409	.440
	Work environment	.290	.163	3.181	1	.074	-.029	.609
	Remuneration	-.108	.117	.846	1	.358	-.337	.122
	Work load stress	.103	.167	.382	1	.537	-.224	.430

Link function: Logit.

The results presented in table 1.16 show that only remuneration is statistically significant in influencing performance of nurses in Kenya. However, remuneration with a value of -0.117 is statistically significant at 10 percent level of significance which suggests that the probability of increasing performance of a nurse decreases with increase in remuneration. Other variables age gender, education; work experience, work environment and work load stress are statistically insignificant determinants of performance of nurses in Kenya.

9 Conclusion and recommendations

The issue of occupational stress and related issues such as burnout need to be addressed in all levels of hospitals even though the inferential statistics test do not show that workload stress is statistically significant, the descriptive statistics suggested the existence of stressful situations with majority of nurses (78.9%) indicating that workload stress influences performance of nurses to a great extent and (11.2%) indicated to a small extent. This means that although nurses indicated that stress affected their performance to a great extent it did not meet the significance level set by this study.

It seems that nurses have developed coping mechanism. Nurses reported that burnout was a common problem, overload in work schedules, inadequate number of nurses, frequent illnesses, having no social life, nurses turnover, and family conflict because of work schedules were said to be the major causes of stress. These need to be addressed urgently in order to improve the quality of services provided by nurse.

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