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Occupational Demand and the Level of Stress among the Secondary School Administrators in Nakuru County, Kenya

Samuel Kamunge

Student, Department of Psychology and Counselling, Laikipia University, Kenya

Enos Barasa Mukadi

Senior Lecturer, Department of Psychology and Counselling, Laikipia University, Kenya

Mbuthia Ngunjiri

Associate Professor, Department of Curriculum Studies, Laikipia University, Kenya

Abstract:

Stress can be caused by different factors among the secondary school administrators. One of those factors is the demand subjected to them during the day to day running of the schools. The implementation of the Ministry of Education and the teachers' service commission policies at the school's level and the management of the school is associated with a lot of challenges due to the resistance they may receive from the stakeholders. Occupational stress is increasing due to changes in every sector of the economy, all professions and all categories of workers, as well as schools and societies. There is little evidence of research on the influence of stress among school administrators in Nakuru County, Kenya. Consequently, all these occupational demands loaded on to the secondary school administrators can cause stress among them. This study seeks to establish the influence of occupational demand on the level of stress among the secondary school administrators in Nakuru County, Kenya. The study used a descriptive research design. The target population was 1200 respondents who consisted of 400 secondary school principals, 400 deputy principals, and 400 senior teachers. A sample of 588 respondents was selected using purposive and proportionate stratified random sampling. The sample consisted of 196 principals, 196 deputy principals and 196 senior teachers. The study used questionnaires to collect the data, and focus group discussion was used to access the levels of stress among the School principals. The study found that the number of hours spent on TPAD, EMIS, TMIS, and PC significantly influences the level of stress since the p-values were less than 0.05 significant level. The study used the regression analysis to determine if there was significant effect of occupational demand on the level of stress among the secondary school administrators. The results also found that there was a significant influence of the occupational demand on the level of stress among the secondary school administrators since the p-value = 0.000 < 0.05 significant level. The study recommends that Ministry of Education, Teachers Service Commission and the School's Board of Management should employ an Employee Assistance Program to assist needy secondary administrators who should also be given an entertainment allowance to ensure that they visit recreation facilities to reduce stress.

Keywords: Occupational demand, occupational stress, psychological interventions, gender, schools administrators

1. Introduction

The issue of occupational stress has been a growing area of concern in many professions and has been revealed as a particularly serious problem among school administrators (Montgomery & Rupp, 2005). The term, teacher stress, gained momentum in the 1970's with a significant increase in studies focusing on stress in this profession (Commer, Hanif, Tariq, & Nadeem, 2011). Previous research surveys in the United Kingdom found typical rates of approximately one-third of school administrators surveyed reporting their job as stressful or extremely stressful (Kyriacou, 1987; Eres & Atanasoska, 2011). The issue is not limited to secondary school administrators but extends to primary school also, for example Chaplain (1995) found that approximately 23% of the primary school administrators in his study identified their work as 'very' or 'extremely' stressful. (Murray, 2007), also found that 3 out of 4 second level school administrators felt under constant pressure as a result of stress. The particular study found that the common stressors were workload, teaching classes with a wide ability range and not having enough time to spend with students.

According to Kendi (2012), there is strong influence of occupational stress on the head teacher's tasks in Kericho County. Kendi found that occupational demand among the secondary school heads influences the level of stress among the secondary school administrators. According to Wangai (2012), in a study conducted in Mwatate district of Kenya, it was found that occupational demands has led to many school heads to undergo stress and mental health issues. According to Koech, Tikoko and Chemwei (2014) found that teacher and secondary school administrators undergo a lot of occupational demands that causes the stress among the school administrators and teachers.

Austin, Shah and Muncer (2005) found that the most common work stress among their participants was work overload which lead to the school administrators carrying the work at home to proceed to working at home. This study

was small scale and involved a quantitative approach using Fimian's Teacher Stress Inventory with a sample of 50 high school administrators. The results also showed a correlation between time management and stress and concluded that role work overload with too little time were the main factors which resulted in stress in the high school administrators. The study therefore concluded that excess work among the secondary school administrators and taking the work at home had led to stress among the secondary school administrators.

The problem of stress in school administrators is an international problem, for example, several Australian studies have also reported that school administrators are experiencing high levels of occupational stress (Gebrekirstos, 2015). Furthermore, in exploring teacher stress in primary schools in Taiwan, 26 per cent of the school administrators reported that being a teacher was either very or extremely stressful (Govindarajan, 2012). There is an enormous volume of international research carried out on matters such as teacher stress, teacher burnout, teacher motivation and teacher job satisfaction but such topics have received little focus in stress among the school administrator in Kenya. Teacher stress is a much talked of phenomenon. However, there is little consensus between different professional groups regarding its etiology, or how to tackle it. Based on a review of international research, it is concluded that teacher stress is a real phenomenon and that high levels are reliably associated with a range of causal factors, including those intrinsic to teaching, individual vulnerability and systemic influences (Lazarus & Smith, 2014). Limitations with the current research base of teacher stress are identified; we have a reasonable understanding of the etiology of teacher stress, but little is known about the effects of reducing or mediating the impact of stressors.

Stress can also reduce the ability to perform at the highest levels (Abirami, 2012). The negative effects of stress can impact negatively on performance and quality of life. The effects of stress are unmistakably many. They include increase heart rate, speed breathing or held breath, tightens muscle to prepare to fight or flight, directing blood to the brain and major muscles (away from digestion, hands/feet, Reproductive organs), releases stress hormones like cortisol and adrenaline, slows or stops digestion, causes the brain to be more reactive/less thoughtful, increases perspiration, reduces immune system response (Adeniyi, Fakolade, Aremum, & Adeyinka, 2010). The quantum of occupational demand on an individual definitely leads to higher stress level. Where a teacher senses a disproportion between his/her work demands and his/ her to meet these demands, occupational stress is said to have occurred. In simple words, occupational stress is the harmful physical and emotional response that can occur when there is a conflict between job demands on the person and the quantum of control required in meeting these demands.

In the recent years, the secondary school management and the teachers have been faced with a lot of changes which have subjected them with stress leading to depression. In adjusting to these changes from the Ministry of education and Teacher service commission, secondary school principals and teachers in recent times are faced with varied management and implementation issues that impede effective administration and management of the school. The school principal as the administrator of the school initiates, organizes, and directs the activities of staff and students towards the achievement of school objectives as well as the development of positive school-home relationship (Van Velsor & Orozco, 2006). It is the duty of the principals and teachers to administer the curriculum in schools as directed by the Ministry of education, teaching pastoral care, discipline, continuous assessment and examinations, resource allocation, costing and planning, staff appraisal and relationship with the community. The principal also ensures that there is smooth running of the school as directed by the ministry of education and the Teacher service commission policies. The introduction of Teacher Performance Appraisal and Development policy, Performance Contracting, and Teacher Management Information System by the teacher service commission has introduced stress in the management of the secondary schools and education institutions (TSC, 2017). The Ministry of education also introduced the National Education Management Information System which also received a lot of rejection by the teaching staff creating stress to the school administrators (Ministry of Education, 2018). This study therefore seeks to determine the effect of occupational demand on the stress levels among the secondary school administrators in Nakuru County, Kenya. The purpose of the study was to investigate the school-based factors, stress levels and psychological interventions among public secondary schools' administrators in Nakuru County, Kenya.

1.1. Objectives of the Study

The following objective guided the study:

- To determine the influence of occupational demand on the level of stress among administrators in Nakuru county, Kenya.
- To achieve the research objective for this study, the following null hypothesis was posited and tested at .05 level of significance:
- H_{01} : There was no statistically significant influence of occupational demand on the level of stress among secondary school administrators in Nakuru County, Kenya

2. Research Methodology

The research design chosen for this study is descriptive research design (quantitative and qualitative research designs), which uses survey method for data collection. This type of research design was used to document the prevalence of particular characteristics in a population.

The study was carried out in secondary schools in Nakuru County, Kenya. The study population for the research was drawn from the total of 400 public secondary schools. The location was chosen to be Nakuru County because the schools in Nakuru County are evenly distributed within Urban and Rural areas and has three different types of schools, National, County, and sub county schools. The target respondents included all the administrative staff in the selected

institutions (Principals, deputy principals and senior teachers). The target population for the study consists of 1200 administrators from 400 schools i.e. (400 principals, 400 deputy principals and 400 senior teachers). The study specifically targeted the management in different schools. These included the principals, the deputy principals, and senior teachers.

A sample representative of the county and sub county schools was selected from 400 schools and a sample of 196 Principals was selected, 196 deputy principals and 196 senior teachers giving a total sample size of 590. After determining the sample size, purposive sampling and simple random sampling was used to randomly select the representative principals, deputy principals and senior teachers from the selected schools.

2.1. Instrumentation

The instrument used for the study was a questionnaire containing structured or closed ended questions. The questionnaire was directed to principal, deputy principal and the senior teacher. The study also used the focus group discussion to get the view of principals on the issues of stress. The questionnaire was administered to various school administrators.

2.2. Validity and Reliability of Research Instrument

According to Christensen, Johnson & Turner (2015), Validity refers to the extent to which your measurement procedure was measuring what you think it is measuring and whether you have used and interpreted the scores correctly. Validity is based on evidence revealing that the target construct can correctly be inferred from the particular operations of measurement. Evidence of validity was obtained by developing a theory about how a test or instrument should operate if it is working correctly, and then the theory is tested to obtain the evidence. The validity was enhanced subjectively thorough examination of the instrument by experts in the School of Education Laikipia University. Reliability refers to the consistency or stability of the scores of your measurement instrument. Pilot study was done in 4 schools within Nyandarua County. Reliability coefficient of the instrument was determined using Cronbach's alpha to determine internal consistency. This approach was preferred since it reduces the time required to compute reliability (Huysamen, 2006). Coefficient alpha also results in a more conservative estimate of reliability thus reducing erroneous conclusions (Mugenda & Mugenda, 2003). This is a trial of data collection process to determine if the instrument has any corrections to be made before actual data collection commences, using a smaller group of about 15 to 20 individuals (Creswell, 2008). Cronbach's alpha coefficient was above 0.7 and hence acceptable for the proposed study (Creswell 2018). The results of the pilot survey helped in restructuring of the questionnaires and interview guide by incorporating the missing information, omitting irrelevant questions and paraphrasing questions that may appear ambiguous to the respondents. A reliability coefficient of at least 0.7 was considered high enough for the instruments to be used for the study (Jwan, 2010).

2.3. Data Analysis

To achieve the objective of the study inferential statistical was used to determine the objective of the study. The regression analysis was used to investigate if there is any effect of occupational demand on the level of stress among the secondary school administrators in Nakuru County Kenya. The SPSS version 25 was used for analysing the data.

3. Results and Discussions

3.1. The Demographic Analysis of the Study

The demographic characteristics included, the age of the administrators, gender of the secondary school administrators, marital status of administrators, the years of experience, the level of education of the administrators, and the nature of school the administrators are working in. The demographic analysis was critical in understanding the distribution of the secondary administrators.

3.2. Age of the Respondents

The age was clustered into four categories, each with an interval of 5 years with an exception of the first category which had an interval of 10 years. The age was distributed from 35 years to 60 years, as seen in Table 4. This was done to ensure that the study would capture the young leaders and the old leaders for the study.

	Age	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	35-44	22	3.7	3.7	3.7
	45-50	96	16.3	16.3	20.0
	51-54	166	28.1	28.1	48.1
	55-60	306	51.9	51.9	100.0
	Total	590	100.0	100.0	

Table 1: The Distribution of Age of the Administrators

The results in Table 1 show the distribution of the age of the secondary administrators in Nakuru County. From the analysis, it can be observed that 22 (3.7%) of the total number of secondary school administrators were between the age of 35-45 years of age. The results of the study indicate that 96 (16.3%) of the total number of secondary school administrators were between the age of 45-50 years of age. The analysis further indicates that 166 (28.1%) of the total

number of secondary school administrators were between the age of 51- 54 years of age. Finally, the analysis indicates that 306 (51.9%) of the total number of secondary school administrators in Nakuru county are between the age of 55- 60 years. Age is a factor that can help an individual to be able to cope with the stress-related factors. Several studies have established that age has been a factor that influences varying levels of stress among many administrators in the workplaces. In a research conducted to investigate the effect of a change on the age on the management of stress, it was observed that the increase in the age of the person significantly increases the ability to lower the level of stress among the person (Manabete, John, Makinde, & Duwa, 2016).

The study found that a person who is aged above 50 years of age have a high ability to manage administrative stress. The study also found that the person of age above 55 are not nervous about the abrupt occurrence of the events which might increase the level of the stress among them. The study also showed that the person of age below 45 is highly nervous and significantly have a high level of stress among them. The study indicated that stress is significantly related to the level of the age of the person.

3.2.1. The Level of Education of the Respondents

The respondents were categorized according to their level of education, and the distribution is as presented in Table 2.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Degree	332	56.3	56.3	56.3
	Masters	258	43.7	43.7	100.0
	Total	590	100.0	100.0	

Table 2: The Distribution of the Level of Education among the Secondary School Administrators

The results in Table 2 show the distribution of the level of education of the secondary administrators in Nakuru County. From the analysis, it can be observed that 332 (56.3%) of the respondents among the secondary school administrators had a bachelor degree. The analysis also shows that 258 (43.7%) of the respondents among the secondary school administrators had a masters. The study shows that there was a large proportion of the secondary school administrators with a bachelor's degree than the proportion of those with a master's degree.

3.3. The Difference in Mean Stress Score between Different Education Levels of the Secondary School Administrators

The mean and the standard deviations of the stress scores of administrators as presented in Table 3.

Group Statistics							
	what is the highest level of education		Statistic	Bootstrap ^a			
				Bias	Std. Error	95% Confidence Interval	
						Lower	Upper
Stress scores	Masters	N	258				
		Mean	24.9070	.0204	.2791	24.3670	25.5034
		Std. Deviation	4.49200	-.01036	.20800	4.09272	4.88578
		Std. Error Mean	.27966				
	Degree	N	332				
		Mean	24.6205	-.0067	.2515	24.1248	25.1012
		Std. Deviation	4.56976	-.00721	.16730	4.22435	4.88729
		Std. Error Mean	.25080				
Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples							

Table 1: The Descriptive Analysis for the Mean Stress Score Between The Administrators with Master's and Bachelor's Degree in Nakuru County

The analysis in Table 3 gives the distribution of the stress score between the administrators who had bachelor degree and administrators who have a Master's degree in secondary schools. From the analysis, it was observed that the mean stress score for the administrators who had master degree was 24.907 with a standard error of .2791. In this study, the number of administrators who had master degree was 258. The results also indicate that the mean stress score for the secondary school administrators who had a bachelor degree was 24.6205 with a standard error of .2515. This study shows that there was a higher mean stress score for administrators who had a master's degree than in secondary school administrators than with a bachelor's degree.

The study sought to establish whether occupational demand has any influences on the level of stress among the secondary school administrators in Nakuru County. In achieving this a null hypothesis was formulated; H_0 : there was no statistically significant influence of occupational demand on the level of stress among secondary school administrators in Nakuru County, Kenya. The results of the analysis are given in Table 4 and 5.

Table 4 gives the results of correlation coefficient between the occupational demand and the level stress among secondary school administrators.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.383 ^a	.146	.145	4.19272

Table 4: Model Summary

a. Predictors: (Constant), Occupational_Demand

From Table 4, the correlation coefficient between occupational demand and the level of stress of secondary school administrators was significant ($r=.383$). This means that occupational demand and level of stress of secondary school administrators are not independent. The correlation coefficient is positive which means that any increase in the occupational demand leads to an increase in the level of stress among the secondary school administrators. To ascertain whether the influence of occupational demand on the level of stress on the secondary school administrators is significant, simple regression analysis was done and the results are presented in Table 5

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1773.448	1	1773.448	100.885	.000 ^b
	Residual	10336.416	588	17.579		
	Total	12109.864	589			

Table 5: ANOVA^a

a. Dependent Variable: The Stress Level

b. Predictors: (Constant), Occupational_Demand

The results in Table 5 indicate that the F-value was significant ($F(1, 588) = 100.885$, $p\text{-value} = .000$). this means that occupational demand has a statistically significant influence on the level of stress among secondary school administrators. Therefore, the null hypothesis is rejected and the conclusion made that occupational demand makes a significant contribution on the level of stress among the secondary school administrators in Nakuru County.

These results have been supported by finding from other studies. According to Kendi (2012), there is strong influence of occupational stress on the head teacher's tasks in Kericho County. Kendi found that occupational demand among the secondary school teachers influences the level of stress among headteachers. According to Wangai (2012), in a study conducted in Mwatate district of Kenya, it was found that occupational demands has led to many school heads to undergo stress and mental health issues. According to Koech, Tikoko and Chemwei (2014) found that teacher and secondary school administrators undergo a lot of occupational demands that causes the stress among the school administrators and teachers.

The teachers and secondary school administrators are affected by the level of stress associated with long working hours away from the work places. Teaching is a wearing job which makes large demands on the nervous system and vitality of the teacher (Manabete, John, Makinde, & Duwa, 2016). Teachers are exposed to high level of stress which cuts across the school sectors and family life. The involvement of teachers jobs away from the family and from the work places increases the level of stress associated with the family separation by the job. This affects their ability to function effectively (Poornima, 2010). According to Waqar, Sanjay, & Purnima, (2016), it was observed that the time-consuming duties off the work places increases the level of stress and tensions among the teachers and secondary school administrators. According to Boyland (2011) the elementary school principals are experiencing moderate and high-level jobs stress in India which affects their ability to function effectively. This is also influenced by high number of hours away from the family for job related duties denying them the recreation time. This results therefore indicate that the occupational demand is a factor that deprive the secondary school administrator time to be in recreation facilities and also to take care of their families as well. This study found that occupational demand lead to rise of the stress level.

4. Conclusion

The objective of the study was to establish whether occupational demand has any influence on the level of stress among the secondary school administrators in Nakuru county Kenya. To achieve the objective, the following null hypothesis was formulated; H_{01} : There was no statistically significant influence of occupational demand on the level of stress among the secondary school administrators

The results generated by the analysis revealed that;

- The Pearson's correlation coefficient between occupational demand and the level of stress among the secondary school administrators was positive and significant ($r = .383$, $p\text{-value} = .000$). This means that any increase in occupational demand leads to increase in the level of stress among the secondary school administrators.
- The regression analysis indicate that the F-value was significant ($F(1,588) = 100.885$, $p = .000$). This means that occupational demand can predict the level of stress among secondary school administrators

- The null hypothesis (Ho1) was rejected and conclusion made that occupational demand makes a significant contribution on the level of stress among the secondary school administrators in Nakuru County Kenya.

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