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By

**Olive Taabu Baraza
Enose MW Simatwa
Julius O Gogo**

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Levels of Stress among Secondary School Teachers and its Implication on Students' Academic Performance in Kenya: A Case Study of Kakamega North Sub County

Olive Taabu Baraza, *Enose MW Simatwa and Julius O Gogo

Department of Educational Management and Foundations, Maseno University.

*Corresponding Author's Email: simatwae@yahoo.com

ABSTRACT

Stress is part and parcel of living. The fact that one is living implies that he is experiencing some amount of stress. This means that stress affects performance. It is on this basis that models have been developed to measure levels of stress among employees. This study sought to investigate the levels of stress among public secondary school teachers and its implication on students' academic performance in Kakamega North Sub-county, Kenya. This study employed the descriptive survey research method which aimed at establishing the levels of stress among teachers who use longitudinal approach in teaching. The study population consisted of 45 principals, 133 teachers and 1 Teachers Service Commission County Director from 45 public secondary schools that used longitudinal approach to teaching. Fisher's formula (Mugenda & Mugenda, 2003) was used to determine the sample size of teachers. Holmes and Rahe's model was adapted and used in data collection, besides interviews. Descriptive statistics in form of frequency counts, percentages and mean were used in data analysis. The study established that 6.06% of the teachers recorded low levels of stress, 37.37% recorded moderate levels of stress and 56.57% recorded high levels of stress. These results implied that students' performance in the sub-county may be low because only 37.37% recorded moderate stress levels that are associated with better performance. Low and high stress levels are bound to lead to low productivity. The study recommended that school managers and administrators should device techniques of creating and maintaining optimal stress levels among teachers for purposes of improving and maintaining students' academic performance.

Key Words: Levels, Stress, Secondary School Teachers, Implication, Students Academic Performance, Kakamega North, Sub County, Kenya.

INTRODUCTION

Stress is a complex concept. Mosley, Megginson and Pietri, (2001) defined stress as any external stimulus that cause wear and tear on one's psychological and/or physical wellbeing. This means that stress is a body condition that occurs in response to actual or anticipated difficulties in life. Stress as such means pressure, tension or worry resulting from life events; and life event is anything that causes a person to deviate from normal functioning. Life events are part and parcel of living and so is stress, a condition arising from the interaction of people and their jobs characterized by changes within people that force them to deviate from normal functioning. Teachers, like other workers in different professions experience stress. According to Sprenger (2011) in a study on stress and coping behaviors among primary school teachers in North Carolina, one hundred percent of teachers interviewed for this study reported that the teaching profession is stressful, with 72% describing the profession as extremely or very stressful. Decenzo and Robbins (2006) indicate that stress is a dynamic condition in which an individual is confronted with an opportunity, constraint, or demand related to what he or she desires and for which the outcome is perceived to be both uncertain and important. Stress can manifest itself in either a positive or negative way. It is positive when a situation offers an opportunity for one to gain something, but when constraints of demands are placed on us then it is negative. According to Bratton and Gold (1999), stress is now part of the regular vocabulary of managers and employees. While some stress is normal to life, if stress is repeated or prolonged, it causes psychological discomfort. Stress has an impact on productivity. According to Subbulaxmi (2002), stress can have various effects on the individual as well as on the organization. Clearly, not only the individual suffers but the organization may also be affected by absenteeism, work related accidents, turnover and impaired decision making. People get sick from stress

at work and the cost associated with stress is hence significant to the employer. Stress is associated with constraints and demands. Constraints prevent the person from doing what he or she desires. Management may not be concerned when employees experience low to moderate levels of stress. Such levels may lead to higher employee performance. But high levels of stress or even low levels sustained over a long period of time, can lead to reduced employee performance and thus require action by management.

According to Beckley (2011) in his study on the wellbeing of New Zealand teachers, the relationship between health, stress, job demands and teacher efficacy, over 39% of teachers considered teaching to be either very stressful or extremely stressful. This means that most teachers experience stress. The study used a cross-sectional research design. The study used a 10 item perceived stress scale to determine the stress levels. Correlation was done to determine the relationship between health, stress, job demands and teacher efficacy. However, this stress scale is not exhaustive as it does not cover all the areas within the teaching environment. The study sample size was 131 teachers randomly selected across New Zealand schools. The study population has not been indicated and so we cannot generalize that the sample size was a representation of the study population. The study did not also indicate the instruments of data collection; it is therefore not easy to assess the suitability of the instruments used.

Boyland (2011), in a study on job stress and coping strategies of elementary principals: a statewide study in USA found out that a large majority of Indiana's elementary principal participants are experiencing moderate to high levels of job stress. In addition, most of the experienced principals indicate more stress now than in previous years. A total of 193 principals from 79 counties in Indiana responded to the survey. However, the study did not indicate the study population, instruments of data collection and the research methodology that was used; it is therefore difficult to verify the accuracy of the results. This study focused on elementary principals, however, teachers in secondary schools were not addressed, and this is a knowledge gap that the current study sought to fill. Skaalvik and Skaalvik (2015), in their study on job satisfaction, stress and coping strategies in the teaching profession found out that both the workload and the accumulation of numerous sources of stress have a number of maladaptive consequences. Important consequences for a number of the teachers were physical and emotional exhaustion, the sacrifice of social lives, increasing instances of sick leave, the reduction of teachers' employment with economic consequences for the individual teachers, and early retirement, with disability pension for some teachers.

Siddiqui (2012), in a study on occupational stress in teachers: a comparative study of public and private schools in Hyderabad city in India found out that it was a fact that female teachers working in public schools as compared to working in private schools lack resources like advanced technologies. Somehow, this could be considered a contributing factor in their stress level. The Urdu version of the Occupational Stress Scale developed by Sohail and Khanum (2000) was used to explore the difference between the level of occupational stress experienced by public and private schools. Siddiqui (2012) had a sample size of 90 teachers from public schools and 90 teachers from private schools. However, the study did not indicate the total population of the study to be able to assess the appropriateness of the sample size, the study did not also indicate the research design. It is therefore difficult to authenticate the results of the study. Alemu, Teshome, Kebede and Regassa (2014), in their study on experience of stress among student-teachers enrolled in Postgraduate Diploma In Teaching: the case of Haramaya university cluster centers, Ethiopia, concluded that many practicing student-teachers report high levels of stress. Kabede and Ragassa (2014) addresses stress levels among practicing student-teachers. However, the study did not address other teachers, a knowledge gap that the study sought to fill.

Anbu (2015) in his study on professional stress of higher secondary school teachers, the female higher secondary school teachers have more stress than the male higher secondary school teachers. The reason is that female teachers apart from guiding the terminal stage school students, have to look after their family members, they were not able to allocate equal weight age to working as well as family environment, hence this result in enhanced stress level. Married higher secondary school teachers have more stress than the unmarried higher secondary school teachers because married teachers are shouldering more responsibility than the unmarried in terms of school work as well as in the family and society, hence they are in the position to satisfy all the dimensions, this results in higher levels of stress. Higher secondary school teachers working in government schools have more stress than those working in private higher secondary schools because the government teachers have to fulfill the work and the task given to them time by time from the administration as well as from the government departments, hence they are more responsible to the government officials than the private school higher secondary school teachers, hence a higher level of stress was evident in the government school higher secondary school teachers. Survey method was used for this study. The sample consisted of 200 post graduate teachers working in government and private higher secondary schools in and around Nagercoil region. The Occupational Stress Inventory was developed by Dr. Joseph and Dr. Dharmangadan. The five point scale consists of 37 test items, which includes positive and negative statements.

In Ethiopia, Gebrekirstos (2015) in his study on occupational stress among secondary school teachers and their coping strategies: The case of Central Zone of Tigray region found out that all the secondary school teachers experienced a high level of occupational stress. This study employed a cross-sectional survey. The study population

was 1,139 secondary school teachers and out of them, 321 participants were taken for this study. To collect data for the study, occupational stress inventory, coping-questionnaire and stressor-questionnaire were used. This study could have incorporated other methods like document analysis, observation and interviews to get a variety of data. Descriptive and inferential statistics were applied to analyze the data. Cluster random sampling and then lottery method of simple random sampling techniques were used to collect data. This study focused on occupational stress among secondary school teachers'. However, the study did not address the influence of teachers' occupational stress on students' performance, a knowledge gap that the study sought to fill.

In Kenya, Ngari, Ndungu, Mwonya, Ngumi, Mumiukha, Chepchieng and Kariuki (2013) in their study on levels of stress among secondary school administrators and its implication in education management in Kenya established that the school administrators experienced stress in their work. 54.5 percent of the respondents recorded high levels of stress resulting from their school workload and other responsibilities. Among the three administrative levels, a bigger proportion of principals recorded high levels of stress compared to deputy principals and heads of departments. Ngari *et al* (2013) focused on stress among administrators which included principals, deputy principals and heads of departments. The study used *ex-post facto* research design. The study used Professional Life Stress Scale modified from Fontana (1989). The population of the study comprised all administrators in the 28 public secondary schools consisting of 28 principals, 28 deputy principals and 224 heads of departments. A sample of 18 secondary schools was selected and included in this study. The sample size was a representative of the population of the study. However, the study could have also adopted a correlational research design to be able to correlate the results. The study did not indicate instruments used to collect data. It is not clear whether the instruments used were appropriate. This study focused on administrators in schools, however the levels of other teachers are not known; a knowledge gap that the current study sought to fill. The current study focused on influence of stress among teachers and the influence on students' academic performance. It will use descriptive and correlational research designs.

Research Objective

The research objective was: To establish levels of stress among public secondary school teachers and its implication in student performance in Kakamega North Sub-county, Kenya.

SYNTHESIS OF LITERATURE ON LEVELS OF STRESS

In America, Fisher (2011) in his study on factors influencing stress, burnout, and retention of secondary schools found out that teachers burnout levels between new and experienced teachers were significantly different, with novice teachers having higher burnout, but their difference in stress levels was not statistically significant. Siddiqui (2012) in a study in India on occupational stress in teachers: a comparative study of public and private schools in Hyderabad city found out that it was a fact that teachers working in public schools as compared to working in private schools lack resources like advanced technologies such as Internet and variety of teaching methods are not available for them. Somehow, these could be considered contributing factors to their stress level. Siddiqui (2012) in Hyderabad city did a comparative study between teachers working in private and public schools using the Ardu version of the occupational stress developed by Sohail and Khanun (2000). Teachers working in private schools should not be compared to those in public schools because the two schools are under different management and they can access new methods of technology like internet while those in most public schools struggle with minimum resources, this study was general. It is not clear on whether the study addressed all the teachers from pre-school to the university level. Ritz, Burris, Brashears and Frazee (2013) on the other hand in their study on the effects of a time management professional development seminar on stress and job satisfaction of beginning Agri-science teachers in West Texas, found out that the beginning teachers had slight to moderate stress. Additionally, the teachers had slightly above neutral levels of job satisfaction. The study employed a quasi-experimental, static-group comparison design. However, the study did not indicate the study population and the sample size used. It is therefore difficult to authenticate the results of the study. Instruments of data collection were also not indicated; hence it is difficult to assess the suitability of the instruments used in the study. Ritz, Burris, Brashears and Frazee (2013) focused on stress levels among beginning Agri-science. However, this study did not address stress levels among teachers in the other subjects; a knowledge gap needs to be filled to make the findings robust.

Hasan (2014) in his study on occupational stress of primary school teachers found out that in general, the primary school teachers have been found to be highly stressed. Moreover, the private primary school teachers have also been found to be highly stressed in comparison to their government primary school teacher counterparts. A sample of 100 teachers was selected, 50 each from government and private schools. Teachers' Occupational Stress Scale constructed and standardized by Jamal and Raheem was administered. The study was empirical study and it is exploratory in nature. This study did not indicate the study population, hence we cannot verify whether the sample

size was a representative of the study population. This study focused on stress levels among primary teachers, however the secondary teachers were not addressed; a knowledge gap that the current study sought to fill. According to Tsigilis, Zournatzi and Koustelios (2011) in their study on burnout among physical education teachers in primary and secondary schools in Greece, it was shown that physical education teachers working in the primary schools reported significantly and meaningfully higher levels on the core burnout dimension, namely emotional exhaustion in comparison to their colleagues in the secondary schools. Moreover, the strength of association among the three burnout components was more prominent in primary physical educators than in secondary schools. The results showed that the education level in which physical education teachers are working represents an important job characteristic that influences burnout levels and should be taken into consideration when this syndrome is examined, at least within the Greek educational system. The study used the version of Maslach Burnout Inventory to analyze stress levels. The study sample size was 207 teachers in primary schools and 230 in secondary schools. This study was limited to physical education teachers in primary and secondary schools. This study did not indicate the total population of the study; it is therefore difficult to assess the appropriateness of the sample size. However, this study did not address teachers of other subjects a knowledge gap that the study sought to fill.

In a study on prevalence and factors associated with stress among secondary school teachers in Kota Bharu, Kelantan, Malaysia, Hadi, Naing, Daud, Nordin and Sulong (2009) found out that the prevalence of stress was reported as 34%. Seventeen point four percent of teachers experienced mild stress. Age, duration of work and psychological job demands were significantly associated with stress level. This study indicates that job-related factors did not contribute much to stress among secondary school teachers. They carried out a cross-sectional study. The instrument used to carry out the study was adopted and modified from the Depression, Anxiety and Stress Scale (21) and Job Content Questionnaire. This study addressed only 18 items in the teaching environment (both job related and non-job related factors), the study therefore did not exhaustively address all the areas surrounding the teacher. Further study by Azmi (2012) on teaching English and stress: teacher trainees versus experienced teachers found out that the experienced teachers have suffered from a stressful life being English teachers due to several reasons and at the same time, the teacher trainees have a tendency of having the same problem. The study used questionnaire which consisted of 48 items based on a four-likert scale. This study did not indicate the total population of the study and the research methodology that was used. It is therefore difficult to verify whether the sample size was a representation of the study population or not. The study focused on stress among English teachers, however, teachers teaching other subjects were not addressed, a knowledge gap that the current study sought to fill. Tashi (2014) in his study on occupational stress among Bhutanese teachers in South Korea found out that male teachers faced more stress than their counterparts. The study also found that stress is most prevalent among teachers with an experience of over 10 years followed by teachers with 6-10 years of experience in teaching. The study used descriptive research design. The sample consisted of 150 school teachers, selected from 42 schools. This study has not indicated the total number of teachers in the 42 schools. Though the sample size has been given, we can verify if it was a representative sample of the study population. In a research on teachers' collective efficacy, job satisfaction, and job stress in cross-cultural context by Klassen, Usher and Bongc (2010), found out that teachers had greater workload stress, greater classroom stress from student behaviors, and lower classroom management self-efficacy. Teachers with greater workload stress had greater classroom management self-efficacy, whereas teachers with greater classroom stress had lower self-efficacy and lower job satisfaction. Those teaching young children (in elementary grades and kindergarten) had higher levels of self-efficacy for classroom management and student engagement. Lastly, teachers with greater classroom management, self-efficacy or greater instructional strategies self-efficacy had greater job satisfaction. In a study on occupational stress of teachers: a comparative study between Turkey and Macedonia, it was revealed that Turkish teachers have mild stress levels and Macedonian teachers have moderate stress levels. There is a meaningful difference in the stress level points of Turkish and Macedonian teachers (Eres & Atanasoska, 2011). Turkey and Macedonia are two areas under different climatic conditions and working environments. The two should not be compared. Comparison should be made to schools under the same management, environmental conditions and working conditions. Reddy and Anuradha (2013) in a study on occupational stress of higher secondary teachers working in Vellore District in India found that, around 88 percent of higher secondary school teachers are experiencing moderate and high levels of occupational stress. Survey method was used in this study. For the research tool, the researchers adopted and re-modified the rating scale developed by Reddy (2006) and modified by Poornima (2010) for assessing the occupational stress of special education teachers. Alemu, Teshome, Kebede and Regassa (2014) in their study on experience of stress among student-teachers enrolled in Postgraduate Diploma in Teaching: the case of Haramaya university cluster centers, Ethiopia, concluded that many practicing student-teachers report high levels of stress.

Hasty (2007) in his study on teacher attrition: the relationship between teachers' stress and their intentions to leave their current positions in Nebraska public schools, found out that higher stress levels were associated with stronger intentions of teachers to leave their current positions. Further study by Tasleema, Muddasir and Javied (2013) on a study on social and family role stress among primary school teachers of district Budgam, India showed

that female primary school teachers were found to have more stress as compared to male primary school teachers of district Budgam. Private male primary school teachers were found to have more stress as compared to Government male primary school teachers of Budgam District. The main reason is that private females feel insecurity in terms of safety, job, pressure from home and society. The Social and Family Role Stress Scale by S. Sultan Akhter and PritiVadra were administered. Further study in India on occupational stress and health among teacher educators, Vipinder and Sarita (2013) revealed that teacher educators experienced moderate level of occupational stress. Significant differences indicated occupational stress among teacher educators in relation to gender and marital status. The correlation analysis revealed that occupational stress does have significant and positive impact upon the health of teacher educators.

Sumathy and Sudha (2013) in their study on teachers stress and type of schools in India concluded that teachers from private un-aided schools have a high level of stress than public and private schools, so private un-aided schools' management have to concentrate on their teachers wellbeing, and provide job security and have to implement strategies to avoid the conflict between the teachers and also consider the way of qualification, eligibility and willingness of concerned teachers. By way of taking care of teachers' wellbeing, the management can reduce the teachers stress and can promote the students' wellbeing directly. Antoniou, Ploumpi, and Ntalla (2013) in their study on occupational stress and professional burnout in teachers of primary and secondary education: The role of coping strategies in Attica, found out that teachers of Primary Education experience higher levels of stress compared to the teachers of Secondary Education. Female teachers experience more stress and lower personal accomplishment than men. Primary teachers should not be compared to secondary teachers. Secondary teachers specialize in two subjects while primary teachers specialize in five subjects. Examinations in primary schools have multiple choices while in secondary, students are not given multiple choices, and these teachers are bound to face different levels of stress. According to Putter (2003), in his study on stress factors among teachers in schools of industry, teachers from schools of industries experience high levels of stress. The study showed that teachers experience high levels of stress with regard to time management, work-related stressors, professional distress, discipline and motivation and professional investment as well as high levels of stress manifestations with regard to emotional, fatigue, cardiovascular, gastronomic and behavioral manifestations. The results of this study indicated that there are no differences between the stress levels and stress manifestation for teachers in schools of industry and mainstream schools and that demographic variables do not play a significant role in the stress levels of teachers. According to Mondal, Shrestha and Bhaila (2011) in their study on job stress and job satisfaction, in Kaski, Nepal, school teachers were partly satisfied and experiencing mild to moderate stress from their job overall. These can be the resultant of unfavourable job conditions and job types for the school teachers. The study comprised of randomly selected 69 school teachers from Pokhara, Nepal. The socio economic data of the subjects were collected by questionnaires. Modified TJSQ and Modified TARSO were applied to identify the Job satisfaction and Job stress of the subjects. Data from acceptable returned questionnaires were analyzed by Statistical Package for the Social Science 17.

Alemu, Teshome, Kebede and Regassa (2014) in their study on experience of stress among student-teachers enrolled in Postgraduate Diploma in Teaching: the case of Haramaya University cluster centers, Ethiopia, concluded that many practicing student-teachers report high levels of stress. The experience of stress did not significantly differ based on sex, age, fields of study, and geographic locations of student-teachers. Student misbehavior, inability to have contact with significant others like families and relatives, and uncomfortable working environment were identified to be the greatest stressors in that order. In South Africa, Peltzer, Shisana, Zuma, Wyk and Zungu-Dirwayi (2008) in their study on job stress, job satisfaction and stress related illnesses among South African educators found considerably high stress levels among educators. Job stress and lack of job satisfaction were associated with most stress-related illnesses (hypertension, heart disease, stomach ulcer, asthma, mental distress, and tobacco and alcohol misuse). Further study by Olivier and Venter (2008) in their study on the extent and causes of stress in teachers in the George region, South Africa indicated that the stress levels of teachers in the George area are average.

In Kenya, (2013) Ngari, Ndungu, Mwonya, Ngumi, Mumiukha and Kariuki in their study on levels of stress among secondary school administrators and its implication in education management in Kenya established that the school administrators experienced stress in their work. 54.5 percent of the respondents recorded high levels of stress resulting from their school workload and other responsibilities. Among the three administrative levels, a bigger proportion of principals recorded high levels of stress compared to deputy principals and heads of departments. This study used ex post facto research design. Ngari, *et al* (2013) in Kenya focused on stress levels among school administrators which included principals, deputy principals and heads of departments. The study used ex post facto research design. However, the study did not address stress levels among other teachers. The current study used correlational and descriptive research designs. The current study seeks to establish stress levels among teachers in secondary schools in Kakamega North sub-county, a knowledge gap the current study sought to fill.

Studies reviewed by Siddiqui (2012) in Hyberdad city, Ritz, Burris, Brashears and Frazee (2013) and Ngari, *et al* (2013) in Kenya have shown that teachers experience moderate to high levels of stress.

The studies reviewed cut across countries of the world from underdeveloped, developing and developed countries. The studies also encompasses teacher trainees on teaching practice, novice teachers, experienced teachers, female and male teachers, and teachers of different disciplines like English, physical education, agri-science and so on. The stress levels have been established characterizing teaching profession as stressful. However none of the studies investigated stress levels and implication on students' academic performance. This is the gap in knowledge this study sought to fill.

CONCEPTUAL FRAMEWORK

A conceptual framework (Figure 1) was used to guide the study. The conceptual framework postulated that teachers experienced stress, and the levels of stress differ from one teacher to another. Studies have shown that stress levels experienced by teachers have implication on students' academic performance.

Figure 1: A Conceptual Framework Showing Levels of Stress among teachers and its implication on students' academic performance

The conceptual framework was based on the concept that “the mere fact of living places stress on human beings” (Mosley, Maggison & Pietri, 2001) and Kwaku's (2012) assertion that stress affects job performance such that high level of stress causes low job performance. This conceptual framework postulates that teachers experience stress that arise from work load; school environment and government policies. Once a teacher is stressed, he/she can be affected positively or negatively and this can affect the performance. If the teacher is affected negatively, it leads to poor students' academic performance and if affected positively, leads to good students' academic performance. If a teacher is well paid, has manageable workload, consulted and involved in making decisions on policies, teaches well behaved students, receives support from the administration and given promotions will experience moderate stress. The teacher will concentrate on his/her work and this will lead to good students' results. However, when a teacher is having a big work load that he/she is not able to handle, a large class, has had no promotion, is not involved in decision making over students, the teacher is likely to experience a high level of stress which will affect his/her performance eventually leading to poor students' results. Very low stress levels characterized by boredom also results in poor performance.

RESEARCH METHODOLOGY

The study will adopt descriptive survey and correlational research designs. The study population will consist of 45 principals, 133 teachers and one Teachers Service Commission County Director. The study used saturated sampling technique to select 40 principals and one Teachers Service Commission County director. Purposive sampling technique will be used to select 99 teachers of the form four 2014 students. Quantitative data will be collected using questionnaires and document analysis guide while qualitative data will be collected using interview schedules. Data will be collected by the use of questionnaires, interview schedules, and document analysis guide. Face and content validity of the instruments will be determined by experts in the area of Educational Administration whose input was incorporated in the final draft before going to the field. Reliability of instruments was established through a test re-test method in 5 (10%) of the schools that were not involved in the main study whereby Pearson's r coefficient of 0.7 and above at a set p -value of 0.05 was considered reliable. In this case the Pearson's r coefficient for teachers' questionnaire was 0.89, hence the instrument was declared reliable. Quantitative data from closed-ended items of the questionnaire will be analyzed using frequency counts, percentages and mean in order to establish the stress levels. Qualitative data from the open-ended items in the questionnaire and interviews were transcribed and analyzed in emerging themes and sub-themes.

RESULTS

Demographic Characteristics of the Respondents

Table 1: Demographic Characteristics of the teachers (n=99)

Demographic Characteristics	Frequency (F)	Percentage (%)
Gender		
Male	60	60.6
Female	39	39.4
Total	99	100
Marital Status		
Married	62	62.6
Single	26	26.3
Widow	3	3.0
Widower	5	5.1
Divorced	3	3.0
Total	99	100
Age in Years		
20-29	23	23.23
30-39	23	23.23
40-49	32	33.32
50 and Above	21	21.12
Total	99	100
Highest Level of Education		
Diploma	12	12.12
Bachelor of Education	54	54.54
BSC-PGDE	21	21.12
Masters	12	12.12
Total	99	100
Teaching Experience		
> 5 years	12	12.12
6-10 years	29	29.3
11-15 years	35	35.4
16 and above	23	23.23
Total	99	100

Sixty (60.6%) of teachers were male and 39 (39.4%) were female. This means that majority of the teachers in the sub county are male. Sixty two (62.6%) of the teachers were married, 26 (26.3%) were single, 5(5.1) were widowers, 3(3.0) were widows and 3 (3.0%) were divorcees. This means that majority of the teachers were married. The study also sought to investigate the ages of the deputy principals. The study categorized the ages of the respondents into four age brackets; Age bracket 20-29 had 23 (23.23%) respondents, 30-39 had 23(23.23%) respondents, and 40-49 had 32 (33.2%) respondents and 50 and above had 21 (21.12%) respondents. It can be concluded that a majority of the respondents were in the age bracket 40-49. This is the age when most parents have a responsibility of raising their children. The study also sought to investigate the level of education of the teachers. The information was important as it helped in gauging the answers of the respondents. Majority of the teachers had Bachelors degree that is 54 (54.54%), BSC-PGDE were 21(21.12%), 12(12.12%) had masters degrees while 12(12.12%) had diploma degrees. The study sought to determine the teaching experience of the teachers. The teaching experience was categorized into four categories i.e. <5 years, 6-10 years, 11-15 years, 16 and above years. The results showed that 12 (12.12%) teachers had less than 5 years of experience, 29(29.3%) teachers were in the bracket of 6-10 years of experience, 35 (35.4%) were in the bracket of 11-15 years of experience and lastly 23(23.23%) were in the bracket of 16 and above years. This means that majority of the teachers have taught for 6-10 years. The information on experience was important as the more experienced teachers were, the higher their ability to understand the students better. The demographic information enabled us to get balanced information as we had teachers in all the categories, that is, single, married, widows, widowers and divorcees.

Research Question

The research question responded to was: What are the levels of stress among public secondary school teachers and their implication on students' academic performance in Kakamega North Sub-county? The responses were as shown in Table 2.

Table 2: Teachers' Stress Levels in Public Secondary Schools in Kakamega North Sub County

Ratings	Level of Stress	Frequency	Percentages
1.00-1.44	Very low	0	0
1.45-2.44	Low stress	6	6.06
2.45-3.44	Moderate stress	37	37.37
3.45-4.44	High stress	56	56.57
4.45-5.00	Very high stress	0	0

From Table 2, six (6.06%) of the teachers are experiencing low stress level. In Kakamega North sub-county, only 6% of the teachers are operating at a low stress level. Thirty seven (37.37%) of the teachers are experiencing moderate stress level. it's clear that 37(37.37%) of the teachers are operating at an moderate stress level and so they are creative in their work, motivated to work hard to better performance in the sub-county. Fifty six (56.57%) of the teachers are experiencing high stress level.

DISCUSSION

Demographic data revealed that teachers in Kakamega North Sub –County manifested myriad characteristics in terms of gender, marital status, age, academic qualifications and teaching experience. All these characteristics were captured by the Homles and Rahe (1967) adapted social readjustment rating scale using 50 “life changing units.” These items were robust enough to reveal the stress levels of teachers in the public secondary schools. For instance, data on gender, female teachers are likely to have more stress than their male counterparts because apart from their academic responsibilities they are more involved in domestic chores (Anbu, 2015). This study established that the teaching profession has many stressors. These stressors included worries over expected Kenya Certificate of Secondary Education examinations results, workload, internal assessments, students' indiscipline, lesson preparation, large family sizes among others. These stressors impact differently on stress levels of teachers; workload had a high meaning that it had high influence on levels of stress among teachers in public secondary schools. Some of the other factors were rated as follows; long hours of work 4.2, school policy on dress code 4.3, commuter allowances 3.25, school policy on remedial teaching 4.61, basic salary 3.82, curriculum organization 3.22, marking students work 3.84, shortage of teaching facilities 4.22, setting examinations 3.45, school ethos 3.12, interpersonal relations 2.80, team teaching 3.2, health status 2.54, married life 3.90, single parenthood 4.24, domestic chores 4.50. The ratings of 2.45 to 3.44 meant that the life events (or life changing units) were experienced

three times in every 3 months in the last four years which translated to moderate stress level. The ratings of 3.45 to 4.44 meant that the life changing units were experienced four times in every one month in the last four years which translated to high levels of stress. The ratings of 4.45 to 5.0 meant that life changing units were experienced five times in every week in the last four years, which translated to very high stress levels. Nevertheless, these life events were expressed as not impacting on only teachers but jointly with others. It is for this reason that 6% of the teachers were recorded as experiencing low stress levels, 37.37% as experiencing moderate stress and 56.57% as experiencing high stress levels. None of the teachers recorded very low stress and very high stress levels. These findings concur with those of Anbu's (2015) study conducted on professional stress of higher secondary school teachers working in government and private schools in Nagercoil Region, India. Two higher secondary school teachers were used as the sample.

The findings revealed that the demographic factors like gender, type of school and marital status of teachers had significant impact on their stress levels, whereas the professional qualification, location of school, medium of instruction and teaching experience did not differ significantly in their level of professional stress component. Furthermore, Anbu (2015) found that a higher level of stress was evident in higher government secondary schools than those working in private schools. The findings of this study were also in agreement on stress and employees by Altangerel, Ruime, Elahi and Dash (2015) in their study titled "investigating the effect of Job Stress on performance of Employees; Ulaanbaatar capital of Mongolia; 120 employees of four telecommunication companies of Mongolia, that is, Mobicom, United, Skytel and G-mobile were used as sample size. The study by Oyungerel et al (2015) established that employees were stressed by work overload, no relaxation time during working hours and family sizes. A study by Sultara, Bano, Bano and Shafa (2012) on the nature and impact of teachers stress in the private schools of Gilgit – Baltistan, Pakistan involving 555 private schools revealed that teachers in private schools were more stressed than teachers in government schools. This was irrefutably evidenced in teachers' turnover which was higher in private schools than government schools. The teachers in private schools were working under very demanding circumstances which often eroded their motivation and contributed to their anxiety and tension. These findings are contrary to those of Anbu's (2015) study in Nagercoil Region in India. This means teachers whether in government or private schools experience stress. What may vary are the stress levels. The reasons cited for the stress experienced were workload; time spent in class, preparation, counseling students, working with large number of students, lack of resources, specifically instructional resources, libraries, computer laboratories, laboratories, resource rooms, salaries, family issues and financial resources. These findings concur with the findings of this study, meaning that Homles and Rahe social, readjustment Rating scale was effective in establishing stress levels. Gebrekirstosalos in a study titled occupational stress among secondary school teachers and their coping strategies: The case of central zone of Tigray Region, Ethiopia, using a sample size of 321 secondary school teachers revealed that secondary school teachers experienced high level of occupational stress. The dominant stressors were interpersonal related sources, administrative sources and students' parents related sources. Specifically, the study indicated that gender workplace and family had no effect in experiencing occupational stress among teachers. On the contrary, age and work experience had significant mean difference.

The study focused on levels of stress among teachers because of its implication on students' academic performance. Low stress level is a level at which an individual maintains his performance and does not induce and activate or do not suffer from any stress and possibly that the individual sees no reason to change the level of performance. In Kakamega North sub-county, teachers are operating at a low stress level. This means that they are contented with their performance and therefore not challenged to better their performance. The teachers operating at this level may be bothered with students' demands, school mean scores in National examinations, setting of examinations, academic days in the school and other responsibilities in the school. A school that has so many teachers operating at this level may not realize improvement in students' performance. The findings are inconsistent with the findings of Sumathy and Sudha (2013) who found out that no one was experiencing low stress levels. Compared to teachers in India, a small percentage of teachers in Kakamega North sub-county are experiencing low stress levels. Moderate stress level is a level at which an individual gets encouraged and stimulated to increase their level of performance especially when confronted with a difficult situation. This is a situation that is responsible for the creation of innovative activity when the individual is trying to solve a difficult problem. The individual is challenged and is stimulated to better his/her performance. From the findings, the optimum amount of stress is important for creating an urge in the individual to perform better, that optimum level of stress is Eustress. Beyond that level of stress, the performance/efficiency reduces, it is clear that teachers in Kakamega North Sub county may have been operating at moderate stress levels and so they would have been creative in their work, motivated to work hard to better performance in the sub-county. Teachers operating at this level are concerned with everything that goes on in the school. They are concerned with the students, setting of examinations in the school, remedial teaching, and attending to parents and other responsibilities in the school. Unfortunately the teachers operating at this level were few in Kakamega North sub-county, hence their impacts on performance in the County have been minimal. A school that has so many teachers operating at this level may realize better performance much faster. The findings are

inconsistent with the findings of Sumathy and Sudha (2013) who found out that 225 (57.69%) of the teachers were experiencing moderate stress levels compared to teachers in Kakamega North sub-county where a small percentage of teachers in India were experiencing moderate stress levels. The findings are also not in line with the findings of Raza (2012) in his study on relationship between occupational stress and job satisfaction of faculty: the case of universities of Punjab that a moderate level of stress is perceived by university teachers. The findings also support the findings of Hadi, Naing, Daud, Nordin, and Sulong (2009) in their studies on prevalence and factors associated with stress among secondary school teachers in Kota Bharu, Kelantan, Malaysia that average stress level among secondary school teachers in Kota Bharu was mild.

High stress level is a level at which negative effects start to emerge and the results were that performance begins to decline. The severity of stress consumes the attention and the energy of the individual in trying to focus on his efforts to reduce the causes of stress, leaving little energy for his/her work. Majority of the teachers in public secondary schools in Kakamega North Sub County are highly stressed. High stress breaks down a person. From the findings, it can be concluded that these teachers are affected by the effects of stress. Teachers operating at this level are highly disturbed with so many issues. For example, when there is a problem, these teachers are highly disturbed to get the solution to the problem and then when the solution is not arrived at, they are much stressed. They are disturbed when students misbehave, when students do not perform well in the examinations and they are disturbed when they cannot handle all their lessons comfortably and other responsibilities in the school. Majority of the teachers could be having lower engagements, less productive and the schools could be experiencing higher levels of absenteeism. Unfortunately, majority of the teachers are operating at this level and so their impact on students' performance may be low. The findings are in line with Ansarul (2014) in his study on occupational stress of primary school teachers which found out that primary school teachers were highly stressed. Moreover, the private primary school teachers were also highly stressed in comparison to their government primary school teacher counterparts. The findings of this study support the findings of Manzoor Awan, Mariam (nd) in their study on investigating the impact of work stress on job performance: a study on textile Sector of Faisalabad found out that stress levels among employees in the textile sector of Faisalabad were high in certain areas like work overload and long work hours, effects on family life, pressure at work, job insecurity, and physical agents, however, this kind of stress was not affecting the performance of the employees. The findings are consistent with the findings of Sumathy and Sudha (2013) in their study on teachers stress and type of schools that 165 (42.31%) were experiencing high stress levels.

On the average, the study established that teachers in public secondary schools in Kakamega North sub-county are experiencing moderate stress levels. This means that theoretically, teachers in Kakamega North sub-county may be operating at a moderate stress level which is a level at which the teacher acts in a constructive manner, stimulated and encouraged to better his/her performance. It is expected that the students' performance in the County should be good as most teachers are stimulated to better their performance. These findings concur with those of Okeke and Dlamini (2013) in their study on an empirical study of stressors that impinge on teachers in secondary schools in Swaziland that teachers were moderately stressed by their work. The findings are also in line with the findings of Olivier and Venter (2003) in their study on the extent and causes of stress in teachers in the George region that stress levels of teachers in the George area are average, but teachers nevertheless expressed concern about teaching factors that cause them stress. However, the results are inconsistent with the results of Gebrekirstos (2015) in his study on occupational stress among secondary school teachers and their coping strategies: The Case of Central zone of Tigray region, Ethiopia that indicated that all the central zone secondary school teachers experienced high levels of occupational stress in their work place. The findings are also inconsistent with the findings of Richards (2012) in his study on teacher stress and coping strategies: A National Snapshot indicated that teachers nationwide are highly stressed, with California teachers at the top of the list.

CONCLUSIONS

Teachers experience stress and work overload; interpersonal relations, school culture, family size, class size, domestic chores, student discipline and setting of examinations are the main reasons for stress. Considering the three levels of stress, most teachers recorded high stress levels. However, on the average, teachers in Kakamega North Sub County are moderately stressed. The teaching profession is full of stressors. The impact of stressors varied from one teacher to another. The implication of stress levels among teachers in student academic performance is that teachers experiencing low and high stress levels are likely to be less productive, which culminate in reduction in student academic performance. Moderate levels of stress enhance teachers' productivity. This means that in schools where teachers experience moderate stress, students are expected to perform better. It is therefore expected that students in Kakamega North Sub County should perform better in academics.

RECOMMENDATIONS

In light of the finding that teachers workload had high influence on stress among secondary school teachers in public secondary schools, the study recommended that teachers' workload should be reduced by employing more teachers.

With regards to the finding that class size of above 45 students had a high influence on stress among teachers in public secondary school, the study recommended that students - teacher ratio be reduced by employing more teachers to reduce the student - teacher contact hours which is a stressor.

With regards to the finding that majority of the teachers in public secondary schools in the sub-county are experiencing high stress levels; the study recommended that there is need for each educational institution to have a counseling centre to cater for both students and staff needs. At such counseling centers, the counselor should be able to provide the appropriate stress management techniques for the staff experiencing high stress levels.

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