© Kamla-Raj 2015 PRINT: ISSN 0976-4224 ONLINE: ISSN 2456-6292 School Headship and J Psychology, 6(1): 41-48 (2015)

DOI: 10.31901/24566292.2015/06.01.05

School Headship and Occupational Stress: The Case of Primary School Heads

T.D. Mushoriwa and N.R. Dlamini

¹University of Fort Hare, ²University of Swaziland ¹E-mail: Tmushoriwa@ufh.ac.za

KEYWORDS Coping Strategies. Heavy Workload. High Turnover. Occupational Stressors. Stressful Working Conditions. Stress Management

ABSTRACT The current study was instituted to explore occupational stress among primary school heads with a view to establishing whether or not these school heads experience occupational stress. The research design employed was survey. A semi-structured questionnaire which consisted of an eleven- point Likert scale to determine the presence or absence of stress, a stress inventory of 65 occupational stressors and follow-up interviews were the instruments used to source data from the participants (n=31; female=45 percent). The study established that primary school heads experience high levels (Mean=6.5) of occupational stress. Among others, high stressors were: too much paper work, work overload, dealing with parents, handling admissions, managing school finances and supervising teachers. t-test analyses of the data revealed that gender, age and experience as school head did not significantly influence overall occupational stress. One of the recommendations is that school heads should be made aware of the fact that their job is potentially stressful and they should be taught how to manage stress in both pre-service and in-service training.

INTRODUCTION

This study explored the interaction between headship and occupational stress among primary school heads in the Manzini Region of Swaziland. It is important to conduct such a study because occupational stress has been found to produce negative effects for both the individual and the organisation (Boddy 2011; Ganster and Rosen 2013). While a lot of research (Ho and Au 2006; Harlow 2008; Naghieh et al. 2015) has been done on teacher stress, there has been little focus on school heads, yet the work of a school head is a high stress job (UK National Association of Head Teachers 2005).

Published research on school heads' stress, known to the present researchers, comes from relatively few and old studies such as those by Cooper and Kelly (1993) in secondary schools in the UK, Magagula (1994) in secondary schools in Swaziland, Nhundu (1999) in secondary schools in Zimbabwe and Darmody and Smyth (2013) in primary schools in Ireland. As can be seen, these studies were mostly done in secondary schools and in socio-economic conditions which may markedly differ from those prevailing today, hence, there is need for a study focusing on primary school heads operating in different socio- economic conditions.

Though teachers and school heads work in the same physical environment, their work demands are different. Heads have, in addition to their role as educators, the responsibility of managing schools and personnel therein (Naghieh et al. 2015). They are also expected to manage the fears, stresses and concerns of their fellow teachers, pupils, parents and government officials (Harlow 2008; Kuehnl et al. 2014). The work of a school head rarely stops at the end of the day- the many meetings after working hours, the obnoxious amounts of paper work are enough to drive even the sanest head to the sanitarium (UK National Association of Head Teachers 2005). The same Association noted, 'We will not be able to attain the high standards of education that both the Government and school leaders desire unless the extremely grave situation of over-worked, anxious head teachers still in the system is addressed' (2005:1). This statement indicates that not only are heads stressed but also that some are leaving their jobs. It is against this backdrop that the present study set out to explore occupational stress among primary school heads with a view to determining how these heads could be assisted to cope with stress.

Literature Review

The incidence of occupational stress has been well documented in many professions (Howard and Johnson 2004). While stress has been traditionally linked to all helping professions, teaching has been found to be one of the top stressing professions (Kyriacou 2000). School heads in particular face numerous stressors that include student behaviour problems (Darmody and Smyth 2013), maintaining teacher and pupil discipline (Austin et al. 2005), heavy workload that includes a lot of paper work (Nagel and Brown 2003); dealing with aggressive parents (Howard and Johnson 2004), being evaluated by others (Kyriacou 2001), attending after school and evening meetings (Romano and Wahlstrom2000) and high external expectations (Murray-Harvey et al. 2000). Studies on stress regarding school heads (Romano and Wahlstrom 2000) have also shown that heads live in constant fear and threat of accountability for each and every action of both self and that of teachers and pupils. Studies (Harlow 2008) have again shown that high job stress leads to increased absenteeism, resignations and career turnover- things that lead to decreased productivity and performance. It has also been shown that long exposure to stress can lead to burnout (emotional exhaustion, depersonalisation and reduced sense of accomplishment). It is also important to note that a number of studies (Sheu et al. 2002) have observed that levels of stress and the outcomes of stress (burnout and psychological distress) depend on a number of factors such as job satisfaction (Ho and Au 2006); coping strategies used (Fortes-Ferreira et al. 2006); length of teaching experience (Sheu et al. 2002) and gender of the individual (Romano and Wahlstrom 2000).

In Swaziland, the school head is the manager of the school and is responsible for its day – to- day running and its policy within the framework laid down by the Government through the Ministry of Education and Training (Government of Swaziland 1979). The head is also responsible for the supervision of all the school's personnel (teachers, pupils and non-teaching staff) and is also accountable to the overall functioning and performance of the school. From the researchers' observations, school heads in Swaziland, perhaps just like those in other countries, are operating under immense pressure from education authorities, parents and society at largepressures of high performance expectations and in most cases, with limited resources and support. Furthermore, the rise in social problems such as HIV/AIDS, the introduction of inclusive education, the massification in schools as a function of the introduction of Free Primary Education and the hard economic times the country is going through have imposed new and complex challenges in the running of schools by heads in Swaziland. With meagre resources, schools are called upon to admit all children irrespective of their socio- economic status (Government of Swaziland 2005). The researchers assumed that because of this situation, primary school heads in Swaziland experience immense stress in their jobs.

Objectives of the Study

The objectives of the study were to:

- determine whether primary school heads are stressed by their job or not.
- determine the heads' level of stress
- identify main stressors among the heads
- test if the heads' stress levels are influenced by gender, age and length of experience.

Hypotheses

- The study hypothesised that there is no significant difference in level of overall occupational stress between:
- male and female school heads.
- young and old school heads.
- inexperienced and experienced school heads.

METHODOLOGY

Research Design

This study used the survey research design. This design was appropriate for this study because according to Creswell (2007), surveys provide quantitative descriptions of trends, attitudes or opinions of a population as was the case in the present study which sought to find out the opinions of primary school heads as to whether their job is stressful or not. The survey design also had the advantage of allowing the triangulation of data collecting instruments (questionnaires and follow-up interviews) and data analysis procedures (quantitative and qualitative analysis) for better understanding of the phenomenon under study (Maree 2010) and therefore for better research results (Creswell 2007). For Trockim (2006), the best hope for achieving objectivity in research is through triangulating across multiple fallible methods- as was the case in the present study.

Participants

Participants were 31 school heads drawn from a total population of 154 primary school heads found in the Manzini Region. While males (n=17) were randomly selected, all female heads in the region (n=14) were involved in the study in an effort to ensure that the sample was as close as possible to being representative in terms of kind (gender). Overall, the total sample (n=31) was considered representative because according to Van Dalen (1979), if you are dealing with descriptive research (which the present study is), anything from 10 percent to 20 percent of the population is representative. Thirty-one heads out of 154 heads is 20 percent, hence, the sample was representative. For Creswell (2007), careful sampling improves the validity of the research results while a representative sample enhances the credibility of research results.

The sample was disaggregated by gender, age and experience (variables of interest in the study) and the following was obtained:

Gender: females=45 percent (14); males=55 percent (17)

Age: ≤ 40 years=6.5 percent (2); >40 years=93.5 percent (29)

Experience: ≤ 5 years=25.8 percent (8); > 5 years=74.2 percent (23).

It was hypothesised that these variables (gender, age and experience) would not yield significant interactions with level of stress.

Instruments

A survey questionnaire adopted from Nhundu (1999) and adapted to suit the local situation and follow-up interviews were the instruments used to source data from the participants. The questionnaire consisted of three sections .The first section required the heads to indicate whether they were stressed in their job or not and to indicate the level of stress on an eleven-point Likert scale. The scale ranged from 0 to 10 where 0 represented no stress, 1-4 represented low stress, 5 represented moderate stress, 6-9 high stress and 10 very severe stress.

The second section was a stressor inventory consisting of 65 items on a six- point Likerttype scale as follows: 1=never occur; 2=rarely occur; 3=occasionally occur; 4=often occur; 5= frequently occur; 6=very frequently occur. The list of stressors was based on lists of sources of stress for school heads and administrators agreed upon by a number of researchers such as Cooper and Kelly (1993), Nhundu (1999) and Hodgen and Wylie (2005). The highly structured closed questions were useful in generating frequencies of responses that were used in the statistical treatment and analysis of the data. In addition to the list of stressors, there was an open-ended question that required the heads to say anything they felt needed to be known about their work.

The third section of the questionnaire required the participants to give demographic data (gender, age and experience as head). Follow-up interviews that were conducted with 11 of the participants who were randomly selected were meant to probe into subtle issues and unexpected responses /comments given in the open-ended question in section two. One can penetrate beyond initial answers through follow-up interviews. Such information can allow deeper and more meaningful analysis of the results.

Validity and Reliability

Though the questionnaire had been adopted with minor modifications, still there was need to test it for validity and reliability given that it was not normed for culturally diverse populations- it was being used in a new environment with different people. The questionnaire was given to six experts in the field of Educational Psychology to assess its suitability as a measure of stress. The same experts were also asked to rate the questionnaire (out of 10) and these ratings were correlated. The inter-rater reliability analysis yielded a sufficiently acceptable coefficient (0.8), indicating that to a large extent, the raters agreed that the questionnaire was reliable.

The questionnaire was further piloted with a group of 8 school heads to see if it worked as intended. After minor adjustments, the questionnaire was adopted for use with the study sample. It must be noted that in the present study, steps were taken to ensure that the research results would be valid. For Creswell (2007), validity in quantitative research (which the present study largely is) can be improved through careful sampling, appropriate instrumentation and appropriate statistical treatment of the data as was the case in this study.

Data Collection

After making appointments with the heads, the questionnaires were hand-delivered by the researchers who waited as the heads completed the questionnaire. This had the advantage of clarifying unclear issues and also ensuring 100 percent return rate.

Data Analysis

Using SPSS Version 10, data were analysed as follows:

- Frequencies and percentages were obtained for levels of stress on the 11 point Likert scale that were indicated by the heads as their perceived overall stress. An overall mean of the responses on the 11 point Likert scale was calculated to determine the general level of occupational stress among the heads.
- The means and standard deviations were obtained to determine the strength of each occupational stressor for the sample. The occupational stressors were then ranked according to their means to determine their high- low extremes/ stress level.
- The interactions between gender, age and experience as head were explored through the t-test. The t-test was preferred over multivariate analyses (which are parsimonious) because the main interest was on juxtaposing the means of the two groups in question to see if they significantly differed or not.

Responses from the open-ended question and follow-up interviews were infused in the discussion to buttress findings.

RESULTS AND DISCUSSION

For the reason that the data in this study were rather massive, only results critical to the objectives and hypotheses of the study were highlighted and discussed immediately thereafter to avoid repetition that often characterises work that separates results and discussion. In section one, heads were required to indicate whether they were stressed by their job or not and to indicate their occupational stress level on an 11 point Likert scale ranging from 0 to 10. (See Table 1a for results).

Table 1(a): Frequencies and percentages of perceived level of occupational stress rated on an 11 point Likert scale by the school heads (n=31)

Overall level of stress	Frequency	Percentage	
0	-	-	
1	-	-	
2	2	6.5	
3	-	-	
4	-	-	
5	7	22.6	
6	6	19.4	
8	7	22.6	
9	1	3.2	
10	2	6.5	
Total	=31	100	

Key: 0= no stress; 1-4= low stress; 5= moderate stress; 6-9= high stress; 10= severe stress.

Table 1a indicates that all the 31 school heads reported to be under stress. About 7 percent (2) heads reported experiencing low stress; 22.6 percent (7) reported experiencing moderate stress; 64.6 percent (20) reported experiencing high stress while 6.5 percent (2) reported experiencing severe stress. These results show that school heads experience job stress though at different levels- the majority being in the high stress category. Research evidence from Naghieh et al. (2015) shows that the head's position causes distress because the head is expected to perform simultaneous tasks such as over-seeing the overall functioning of the school, ensuring a good climate in the school, ensuring sound interpersonal relationships in the school, linking the school with the community, ensuring good academic results etc. In follow-up interviews, many school heads expressed concern over the issue of teaching and at the same time providing leadership to the school. In Swaziland, schools with enrolments around 500 pupils are headed by principals who also have a class to teach. This dual role was reported not only to stress school heads but also to seriously disadvantage classes that are taught by the school heads.

The means and standard deviations for the level of occupational stress as perceived by the

heads were also computed. The overall results are shown in Table 1b.

Table 1(b): Overall mean and standard deviation for level of occupational stress as perceived by the heads (n=31)

Overall level of occupational stress	Ν	М	SD
Perceived stress rating	31	6.5	1.9

Table 1b shows that the mean stress level for all heads is 6.5; indicating that on average all heads experience high levels of stress. Relatively speaking, a standard deviation of 1.9 is a small one, indicating that heads do not differ much in their levels of job stress. The job of headship stresses the heads almost to the same level. These research observations are consistent with findings elsewhere. For example, the UK National Association of Head Teachers (2005) concluded that generally the work of a school head is a stressful one because of the many roles and duties they are expected to perform.

The second section of the questionnaire, as already seen, was a stressor inventory consisting of 65 items on a six point Likert scale as follows:1= never occur; 2= rarely occur; 3= occasionally occur; 4=often occur; 5=frequently occur; 6=very frequently occur. The heads were required to rank in descending order, all the 65 stressors presented. For lack of space, only key results are presented here. In descending order, the computed means for each stressor indicated that too much paper work, work overload, dealing with parents, handling admissions, managing school finances and supervising teachers were ranked the top six stressors (high stressors) which were experienced very frequently by 60 percent of the heads. In an interview, one head commented, "Many people think that heads and their teachers enjoy an easy life with a short working day and many holidays. Some even think that we are over-paid for the little work we do. They do not realise that the work of heads and teachers does not stop at the end of the day. Sometimes we work almost all night- writing reports, marking etc. People also do not realise that heads and their teachers are never at peace with themselves because of debt as a result of poor salaries." These sentiments show that school heads are sometimes stressed by how people evaluate them and their job; they feel under-valued.

Resolving staff conflict, lack of support from the Ministry of Education and Training, dealing with school inspectors, shortage of fully qualified staff, feeling isolated and under-valued by the community were the least six on the 65 item inventory. These results indicate that primary school heads are stressed by a number of factors- this is likely to influence their job performance as well as their health. Naghieh et al. (2015) noted that excessive stress can result in poor work performance, frequent absenteeism, less productivity, decreased motivation, aggression, tension, early retirement, and cognitive impairment. It is therefore critical to ensure that school heads are not excessively stressed if they are to do their work effectively.

In the open-ended question that asked the heads to say anything they felt needed to be known about their work, one head commented, "Lack of respect from teachers and pupils, pushy parents and over-zealous local politicians often make our work hell. Our job actually wrecks and ruins our health- stress, exhaustion, poor sleep patterns etc.," Smith (2006) also found that long working hours and disrespectful pupils caused stress among heads and teachers. A study by the UK National Association of Head Teachers (2005) found that fewer than 5 percent of teachers aspired to be school heads in the coming 5 years because of fear of stress.

Studies (Harlow 2008) have shown that teachers and heads who are stressed often resort to alcohol and drugs and that the number of heads retiring early or actively seeking a change of career is on the increase. In an interview, one head said, "Schools are likely to experience an acute shortage of experienced heads because of early retirements". Surely such a situation would not be good for the education system- hence; steps need to be taken to reduce stress among school heads.

Testing the Hypotheses

The null hypotheses (Ho) declared in the study were tested in this section using the t-test.

Hypothesis 1: There is no significant difference in the level of overall occupational stress between male and female heads.

Mean		t-value	df	р
Male	Female			
6.4	6.7	0.5	29	0.6

Table 2 shows that there is no significant difference in the level of overall occupational stress between male and female school heads; t(29)=0.5, P=0.6. This means the average overall stress of male heads (M=6.4) is not significantly different from that of female heads (M=6.7). The researchers therefore fail to reject Ho. This means that there is no significant difference in the level of overall occupational stress between male and female primary school heads. Both male and female heads experience stress almost to the same level. This finding is consistent with findings by Darmody and Smyth (2013) among Irish primary school heads where it was observed that heads' occupational stress did not vary by gender.

However, findings from other research studies such as that by Romano and Wahlstrom (2000) found that male and female heads do not only experience different levels of stress but also that male and female heads are stressed by different stressors. In the absence of any discernible reasons, it may be speculated that these differences in research findings may be a result of environmental and cultural experiences of the heads involved in the studies.

There is also research evidence from Naghieh et al. (2015) that suggests that generally females suffer more work place distress than their male counterparts. Desmarais and Alksnis (2005) argue that although men and women might not differ in overall stress (as is the case in the present study) women are more likely to experience psychological distress than men because of two reasons. First, males and females differ in their awareness of negative feelings, resulting in females expressing and reporting strains while males deny and inhibit such feelings. Second, in an effort to balance the demands of work and family, females become more strained. For Schultz and Schultz (2010), combining housework, shopping, childcare, cooking with an outside job and trying to do everything on time is what causes women to be stressed most of the time.

A global survey by the Kenexa Research Institute (2010) involving 30 000 workers also revealed that females suffered more work place distress than their male counterparts. According to the survey, women's stress levels were 10 percent higher for those in supervisory positions, 8 percent higher stress in service and production jobs than men, and 6 percent higher in middle and upper management than men in the same positions. These results again refute the findings of the present study. This may be a result of, among other things, differences in environmental/ cultural experiences and/or orientations of the heads involved in the present study, the statistic (t-test) used which may not have been robust enough, sample size etc.

Hypothesis 2: There is no significant difference in the level of overall occupational stress between young and old school heads. (Young = <40 years; old=>40 years)

 Table 3: t-test analysis for young and old school heads on overall level of occupational stress

Mean		t-value	df	р
	Old head teachers (>40yrs)			
5.5	6.6	0.8	29	0.4

From the Table 3, there is no significant difference in the level of overall occupational stress between young and old school heads, t(29)= 0.8;P=0.4. This means that the average overall stress levels of young (Mean=5.5) and old (M=6.6) school heads are not significantly different from each other. Thus, once again we fail to reject Ho and conclude that there is no significant difference in the level of overall stress between young and old primary school heads. Magagula (1994) also found similar results in Swaziland among secondary school heads. Such consistent findings show that the job of a school head is stressful- irrespective of age. These findings are consistent with the Role Theory (Osipow and Spokane, captured in Layne 2001) which claims that various occupational roles that individuals engage in may be stressful regardless of who occupies them. This suggests that in some roles, stress is inherent in the nature of the job.

Table 4 shows that there is no significant difference in the level of overall occupational stress between inexperienced and experience primary school heads, t (26)= -1.1;P=0.3.This means that the average overall occupational stress of inexperienced heads (M=5.5) is not significantly different from that of experienced

heads (M=6.6). The researchers therefore fail to reject Ho and conclude that there is no significant difference in the level of overall occupational stress between inexperienced and experienced primary school heads.

Table 4: t-test analysis for inexperienced and experienced school heads' overall level of occupational stress

Mean		t-value	df	р
Inexperienced head teachers $(\le 5yrs)$	Experienced head teachers (> 5yrs)			
5.5	6.6	0.8	26	0.4

Research on experience and stress among school heads has generally produced inconsistent results. Contrary to the finding in the present study, a study in Malta by Borg and Riding (1993) revealed that experienced school heads were more stressed than inexperienced heads while a study by Nhundu (1999) in Zimbabwe found that inexperienced heads were more stressed than experienced heads. Another study by Darmody and Smyth (2013) in Ireland showed that stress levels were significantly lower for those heads with longer experience. Given that research (Nixon et al. 2011) has shown that stress is not only caused by work over-load or under-load (having work that fails to utilise a worker's skills, knowledge and abilities) but also by having work that is too difficult for an individual, one would expect inexperienced heads, who still have a lot to learn about their job, to be more stressed than experienced heads. These conflicting research results may suggest an interplay of factors other than the variables under investigation.

Yagil (1998) in Israel, also found that inexperienced heads and teachers undergo higher levels of stress than experienced heads and teachers. Yagil attributed this to inexperienced heads and teachers having more role ambiguity and uncertainty surrounding their positions. This view is rooted in the Person- Environment Fit Theory (French et al. in Layne 2001) which claims that the magnitude of strain experienced by an individual in his/her job is proportional to the degree of misfit between the individual and their occupation. Since new heads are still trying to find their feet in their new position, they may face many challenges which stress them. For Layne (2001), new positions are stressful because of role ambiguity, undefined role boundary and general lack of knowledge. Many things are still ambiguous to the new person who may not even know the boundaries of his\her responsibilities.

CONCLUSION

The results of this study indicate that primary school heads experience occupational stress. On average, these heads experience a high level (M=6.5) of stress. Among the main stressors were too much paper work, work overload, dealing with parents, handling admissions and handling school finances. Gender, age and experience as school head did not significantly influence the heads' level of occupational stress.

All in all, it should be noted that school heads who are experiencing stress may devote little time to the affairs of the school, concentrating on their worries. They may fail to put forth the effort required to run the school smoothly and effectively and to motivate teachers, pupils and the community for the benefit of the education of children. This shows the need for addressing stress among school heads.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations were made:

There is need to bring awareness, during preservice and in-service training, about the presence of stress in school headship and how to manage the stress.

School heads who are under stress should receive counselling and support from those responsible such as the Schools' Psychological Services. Combining teaching and providing leadership to the school raised fundamental concerns regarding the long term viability of this dual role. Perhaps the Ministry of Education and Training needs to re-look into this issue.

Another study, using a bigger sample and a more robust statistic than the t-test, is perhaps in order to test observations made in the present study.

REFERENCES

- Austin V, Shah S, Muncer S 2005. Teacher stress and coping strategies used to reduce stress. *Occupational Therapy International*, 12: 63-80.
- Boddy CR 2011. Corporate Psychopaths: Organisational Destroyers. New York: Prentice Hall.

T.D. MUSHORIWA AND N.R. DLAMINI

- Borg MG, Riding RJ 1993. Occupational stress and job satisfaction among school administrators. *Journal of Educational Administration*, 32(1): 4-21.
- Cooper CL, Kelly M 1993. Occupational stress among head teachers: A national U.K. study. *British Journal* of Educational Psychology, 63: 130-140.
- Creswell JW 2007. Educational Research: Planning, Conducting and Evaluating Quantitative Research. New Jersey: Prentice Hall.
- Darmody M, Smyth E 2013. Job Satisfaction and Occupational Stress among Primary School Teachers and School Principals in Ireland. Dublin: ESRI
- Desmarais S, Alksnis C 2005.Gender issues. In: J Barling, EK Kelloway, MR Frone (Eds.): *Handbook of Work Stress.* Thousand Oaks, CA: Sage, pp. 354-362.
- Fortes-Ferreira L, Peiro JM, Gonzalez-Morales MG, Martin I 2006. Work-related stress and well-being: The roles of direct action coping and palliative coping well-being. *Scandinavian Journal of Psychology*, 47: 293-302.
- Ganster DC, Rosen CC 2013. Work stress and employee health: A multidisciplinary review. *Journal of Management*, 39(5): 1085-1122.
- Government of Swaziland 1979. A Guide to School Regulations and Procedures. Mbabane: Ministry of Education and Training.
- Government of Swaziland 2005. *Education Statistics*. Mbabane: Ministry of Education and Training.
- Harlow P 2008. Teacher Stress: Stress, Coping, Job Satisfaction and Experienced Teachers. Master's Thesis, Unpublished. U.S.A.: Mount Saint Vincent University.
- Ho CL, Au WT 2006. Teaching satisfaction scale: Measuring job satisfaction of teachers. *Educational Psychological Measurement*, 66: 172-185.
- Hodgen E, Wylie C 2005. Stress and Well-being among New Zealand Principal. From http://www.hzpf.ac.nz/ resources/research/pdf/full%205stressPrincipals.pdf>. (Retrieved on 6 June 2014).
- Howard S, Johnson B 2004. Resilient teachers: Resisting stress and burnout. Social Psychology of Education, 7: 399-420.
- Kenexa Research Institute 2010. Workplace stress greater for women. Office Pro, 70(5): 8.
- Kuehnl A, Rehfuess E, von Elm E, Nowak D, Glaser J 2014. Human resource management training of supervisors for improving health and well- being of employees. *Cochrane Database of Systematic Re*views, 1002/14651858.
- Kyriacou C 2000. Stress-busting for Teachers. Cheltenham: Stanley Thomas.
- Kyriacou C 2001. Teacher stress: Directions for future research. *Educational Review*, 53: 27-35.

- Layne CM 2001. The Relationship of Occupational Stress, Psychological Strain and Coping Resources to the Turnover Intentions of Rehabilitation Counsellors. New York: Prentice Hall.
- Magagula CM 1994. Factors Perceived by High School Head Teachers of Swaziland as Stressful in Their Jobs. Unpublished Research Paper. Institute of Distance Education, University of Swaziland, Swaziland.
- Maree K (Ed.) 2010. *First Steps in Research*. Pretoria: Van Schaik Publishers.
- Maslach C, Jackson S 1986. The Maslach Burnout Inventory. Palo Alto, California: Psychologists Press.
- Murray-Harvey R, Slee PT, Lawson MJ, Silins H, Banfield G, Russell A 2000. Under stress: The concerns and coping strategies of teacher education students. *European Journal of Teacher Education*, 23: 19-35
- Nagel L, Brown S 2003. The abc of managing teacher stress. *Clearing House*, 76: 255-258.
- Nhundu TJ 1999. Stress in the teaching profession: A comparative study of the sources, incidences and severity of occupational stress among teachers and head teachers in Zimbabwe. *Zimbabwe Journal of Educational Research*, 11(2): 1-33.
- Nixon AE, Mazzola JJ, Bauer J, Krueger JR, Spector PE 2011. Can work make you sick? A meta-analysis of the relationships between job stressors and physical symptoms. *Work and Stress*, 25(1): 1-22.
- Romano JL, Wahlstrom K 2000. Professional stress and well-being of K-12 teachers in alternative educational settings: A leadership agenda. *International Journal of Leadership in Education*, 3: 121-135.
- Schultz N, Schultz D 2010. Psychology and Work Today. New York: Prentice Hall.
- Sheu S, Lin HS, Hwang SL 2002. Perceived stress and physio-psycho-social status of nursing students during their initial period of clinical practice: The effect of coping behaviours. *International Journal of Nursing Studies*, 39: 165-175.
- Smith AI 2007. Survey reveals rising levels of stress among teachers. *Education Guardian*, 1-3.
- Trockim WM 2006. The Research Methods Knowledge Base. New York: Prentice Hall.
- UK National Association of Head Teachers 2005. Head Teacher Stress Rising. From http://news.bbc.co.uk/2/hi/uk-news/education44472.32.> (Retrieved on 6 June 2014).
- Van Dalen DB 1979. Understanding Educational Research: An Introduction. New York: McGraw Hill.
- Yagil D 1998. If anything can go wrong it will: Occupational stress among inexperienced teachers. *International Journal of Stress Management*, 5: 179-188.