

Effect of Stress Management Techniques Across Gender on Task Performance Among Secondary School Student Leaders in Kisumu County, Kenya

Mudis Pamela Akinyi¹

¹ Department of Educational Psychology, Masinde Muliro University of Science and Technology, Kenya

Correspondence: Mudis Pamela Akinyi, Department of Educational Psychology, Masinde Muliro University of Science and Technology, Kenya.

doi:10.56397/JRSSH.2022.11.03

Abstract

Despite, the key role that stress management techniques plays in dealing with the inevitable effect of stress through problem solving, emotional support and denial, there has been a burden among male and female student leaders, triggered by task performance. Specifically, this study sought to assess the effect of stress management techniques across gender on task performance among secondary school student leaders in Kisumu County, Kenya. The study was guided by Cognitive Appraisal theory. To realize this objective, Descriptive and Correlation research designs were used. The target population was male and female student leaders in secondary schools in Kisumu County. Stratified random sampling technique was used to select 1275 student leaders, 53 deputy head teachers and 53 head teachers. Data was generated through questionnaires. Reliability of the instruments was tested using Cronbach alpha and it gave an overall internal consistency of 0.7, hence reliable. Analysis of data was done using percentages, t-test and regression. The findings of the study show that female student leaders are more effective in task performance than their male counterparts. Secondly, the results indicate that gender has a moderating effect on task performance among student leaders. The study recommends appropriate and timely intervention in choice of stress management techniques for male and female student leaders.

Keywords: stress management techniques, student leaders, task performance, gender

1. Introduction

Globally, there are several stress management techniques that male and female student leaders use to cope with stress related to the nature of their tasks. Generally, APA (2014) show that both

men and women not only perceive stress differently but also employ different stress management techniques. Aselton (2012) and Kumar (2016) define stress management techniques as the activities people undertake to

seek and apply solutions to stressful situations or problems that emerge because of our stressors. Stress management techniques can be classified into a number of categories. As evident in research studies conducted by Jayson (2014) and Sharmila (2016) there are numerous ways that males and females use to manage stress, these includes: “problem-focused coping, emotion-focused coping” and avoidant focused coping techniques. McLeod (2015) opines that problem focused coping targets the causes of stress in a practical manner aimed at tackling the problem through social support, time management and problem solving, thus reducing the stress. Emotion focused coping tries to reduce the negative and affective responses linked to stress and may include; venting, prayer, rumination and emotional support. Monteiro, Balogun and Oratile (2014) reveal that avoidant focused coping technique encourages a person to avoid dealing with the stressor by employing procrastination, withdrawal, denial and use of drugs.

Task performance refers to the roles assigned to the student leaders to manage the welfare of the student’s body through their involvement in students’ discipline, planning, decision-making, communication, coordination and monitoring of student’s activities (Student Government Association, 2012).

According to Sincero (2012) not only do men and women manage stress differently, but they also place a different level of importance on doing so. Further revelations by Bouchard and Shih (2013) study report that, while women use adaptive coping techniques such as social support, religion, and seeing a mental health professional, men on the other hand, engages in maladaptive behaviours. According to Carter (2012) emotion focused coping technique, is associated with short term solutions and may have negative side effect in relation to health outcomes. Earlier research on stress by Lovelace (2012) indicate a significant relationship between problem-focused coping and task performance of caregivers as respondents who used problem-focused coping techniques, registered decreased levels of stress and anxiety compared to participants that engaged in either emotion or avoidant focused coping techniques. However, the focus of the study is limited to stress management by caregivers in a medical set up,

thus did not offer information on student leaders in regard to stress management and their effect on task performance. The current study therefore sought to assess the effect of stress management techniques across gender on task performance among secondary school student leaders in Kisumu County.

Several studies reveal that not only do men and women manage stress differently, but they also place a different level of importance on doing so. This may be explained through survey studies by APA (2014; 2015) showing that, women use problem and emotion focused coping techniques such as social support, religion and seeing a mental health expert, whereas men engage in avoidant coping techniques like the use of alcohol and smoking. In addition, Chao (2012) in a study on management of stress among college students, suggest that, men and women approach stressors uniquely and more males than females apply avoidant coping which is maladaptive and tends to increase their stress level. Although, the findings above assert that men and women use different stress management techniques, they have little insight on effect of stress management techniques across gender on Task Performance among secondary School Student Leaders.

Contrary to the generally held opinion that men and women respond to stress in unique ways, a number of research studies indicate that gender differences in stress management is a result of biological make up between men and women. While Sincero (2012) opines that men and women manage stress in different ways partly due to hormonal differences, attributed to the level of oestrogen and a stronger social support base for women, Sarafino (2012) on the other hand explains that women respond to stress by increasing the brain regions involved with emotions and social affiliations compared to males who either confront the stressor or flee from it.

Previous research findings by Pourrajab, Rabbani and Kasmainezhadfar (2014) on different effects of stress on males and females indicate that emotion focused coping and problem focused coping is associated with minimal stress and increased performance among women, compared to their male counterparts. A contrary opinion that the use of emotion focused techniques and problem focused techniques lead to poor

performance and high stress level among has been reported by Lian and Tam (2014) on work stress and coping strategies among working females. Additionally, females who used avoidant focused and problem focused coping still performed well in their jobs. Due to the contradictions in the research findings on the effect of different stress management techniques among males and females, the current study sought to assess stress management techniques and their effects on task performance among secondary school student leaders.

Past research studies further show that the way men and women manage stress is not uniform. First, findings by Sharmila (2016) on the use of stress management techniques by male and female engineering students in Chennai City report that female engineering students employ emotion focused techniques and deal with stressors more easily, compared to male students who used problem focused techniques. Although, these results show that female college students try to manage stress through emotion focused rather than problem focused coping technique, there is limited information on their use and effect on student leadership.

Numerous studies are in agreement on the gender differences in stress management techniques used by males and females. First, Madhyastha, Latha and Kamath (2014) on stress, coping and gender differences in third year medical students report that women use social support and help seeking behaviour, but men use avoidant coping techniques such as drinking and denial of the stressful situation. Secondly, Bouchard and Shih (2013) in their study on gender differences on stress generation report that men are more likely than women to suffer from chronic ailments that are linked to less controlled life patterns and behaviours since they use avoidant focused coping techniques as compared with women are who are always sensitive to the existence of stress in their lives. These results, however, does not explain anything on stress management techniques among student leaders. Therefore, a gap exists on the effect of gender on stress management and task performance of secondary school student leaders.

Further, research studies by Monteiro, Balogun and Oratile (2014) on the influence of gender, age

and emotion regulation on coping among university students in Botswana, indicate that, whereas women employed wishful thinking and problem-focused disengagement and registered poor performance, men on the one hand used problem engagement and performed well in their studies, interestingly, gender differences in other stress management techniques was insignificant. Although it is evident that males and females use different stress management techniques at the University level, little is known on secondary school student leadership. The current study therefore sought to assess the effect of stress management techniques across gender on task performance among secondary school student leaders in Kisumu County.

2. Research Methodology

Correlation and descriptive research designs were applied in this study. Descriptive design was significant for this study as it is a fact finding tool used to express the truth about individual perceptions and attitudes. The study was conducted in secondary schools in Kisumu County, Kenya. The target population were student leaders, deputy head teachers and head teachers in these schools. Kisumu County has 159 secondary schools. The population under study was 3825 student leaders, 159 head teachers, 159 deputy head teachers in secondary schools in Kisumu County. The targeted population in the study was 4131.

Stratified random sampling technique was used to select student leader respondents in secondary schools and purposive sampling technique was used to select 53 head teachers and 53 deputy head teachers. The main instruments for data collection in this study were questionnaires and in-depth interview schedules. The student leader's questionnaire was in form of a self-report on a rating scale with 13 items on task performance and 33 items on stress management techniques, with 11 items each for problem focused coping, emotion focused coping and avoidant coping techniques. Moreover, in-depth interview schedules with the head teachers helped in harvesting data on stress management techniques employed by student leaders and its effect on task performance. Reliability of the instruments was determined as Cronbach Alpha of $\alpha = 0.7$. Validity test was carried out to ascertain the degree to

which test items measure the traits for which they are designed.

3. Results and Discussion

3.1 Descriptive Statistics on Gender Difference in Task Performance

Table 1 shows group statistics on task performance.

Table 1. Group Statistics on Gender difference in Task Performance

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Task performance	Female	622	3.2336	.30096	.01207
	Male	504	3.0188	.26920	.01199

From the descriptive statistics of task performance among gender, the female student leaders had slightly higher score of 3.23, with a standard deviation of .30 and standard error of .012 in student leaders task performance, compared to their male counterparts who had a mean score of

3.02, with a standard deviation of .269 and standard error of .012 in the rating of task performance.

Independent Sample t-test was conducted to establish whether there was statistically significant difference between gender.

Table 2. Independent Samples t-Test on Task Performance among Genders

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Task Perf.	Equal variances assumed	5.222	.022	12.47	1124	.000	.21476	.01721
	Equal variances not assumed			12.62	1113.0	.000	.21476	.01701

From the Table 2, given that the Levene's Test for Equality of Variances was significant ($p = .022 < .05$) we did not assume equal variances. Confirming the differences indicated in the descriptive analysis in Table 2, it was evident that there was statistically significant difference [$t(1113) = 12.62$, $p < .05$] noted in task performance between gender.

The null hypothesis, *there was no significant difference between gender in task performance among secondary school student leaders* was rejected. In conclusion, it was established that there was significant difference in task performance between gender, with female student leaders being more effective in performance of student leadership tasks than their male counterparts. This may be due to the fact, in the current study, most of the female student leaders used problem focused coping technique which as reported by past

literature is associated with less stress and increased performance compared to their male counter parts who used avoidant focused coping techniques (Zhang ,2013; Pedersen ,2015; McLeod ,2015).

The results of the current study also show that the proportion of variance of the rating of task performance that was explained by the gender was plausible. About twelve percent (12.4%) of the variance noted in the rating of task performance was affected by gender of the student leader, with the female student leader favored to be more effective as a student leader than their male counterparts. Although, numerous studies show that men and women manage stress differently (Chao, 2012; Borchad & Shih, 2013) these studies did not show the effect of stress management, gender on task performance.

To determine whether there was a statistically significant moderating effect of gender on stress management techniques (Problem focused, Emotion focused and Avoidant focused coping techniques) on task performance among secondary school student leaders, the hypothesis that *there is no statistically significant moderating effect of gender on stress management techniques on task performance among secondary school student leaders* was tested. To test the hypothesis a hierarchical multiple regression analysis was conducted. The study sought to look at the interaction effect between stress management techniques and gender and whether or not such an effect was significant in predicting task performance among student leaders. Thus, in order to confirm that gender had a moderating

effect on the relationship between the two variables, stress management techniques and task performance, there was need to show that the nature of this relationship changes as the moderating variable change.

This in turn was done by including an interaction effect in the model and checking to see if indeed, such an interaction was significant and whether it helped to explain the variation in the response variable, task performance. To avoid potentially problematic high multi-collinearity with the interaction term, the variables were centered and an interaction term between gender and stress management techniques was created. This investigation was done separately for each type of stress management techniques as indicated in table 3, 4 and 5 below.

Table 3. Model Summary Problem Focused Coping Stress Management Technique

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.180 ^a	.032	.031	.40930	.032	18.778	2	1123	.000
2	.203 ^b	.041	.038	.40765	.009	10.139	1	1122	.001

a. Predictors: (Constant), Problem focused, Gender

b. Predictors: (Constant), Problem focused, Gender, Gender*Problem

Table 3 reveals that model 2 (with interaction term) accounted for significantly more variance than model 1. Model 2 with the interaction between gender and level of problem focused coping stress management technique accounted for 4.1% ($R^2=.041$) of the variability in task performance, while model 1 only accounted 3.2% ($R^2=.032$) of the variability. This imply that addition of interaction term significantly accounted for more variance than just problem focused coping stress

management technique and gender by themselves, R^2 change = .009, $p = .001$, indicating that there was an element of moderation effect between gender and the level of problem focused coping stress management technique on student leaders task performance. Hence, a conclusion was reached that, since the predictor and moderator were significant with the interaction term added, then moderation had occurred, however the effect was relatively small.

Table 4. Model Summary on emotion focused stress management technique

Model	R	R Square	Adjusted R Square	RStd. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.206 ^a	.042	.041	.40718	.042	24.836	2	1123	.000
2	.213 ^b	.045	.043	.40672	.003	3.523	1	1122	.010

- a. Predictors: (Constant), Emotion focused, Gender.
b. Predictors: (Constant), Emotion focused, Gender, Gender*Emotion

Table 4 indicates that model 2 (with interaction term) accounted for significantly more variance than model 1. Model 2 with the interaction between gender and level of emotion focused coping stress management technique accounted for 4.3% ($R^2=.043$) of the variability in task performance, while model 1 only accounted 4.1% ($R^2=.041$) of the variability. This means that addition of interaction term significantly accounted for more variance (R^2 change = .003, $p = .001$) than emotion focused coping stress

management technique and gender by themselves. This means that there was an aspect of moderation effect between gender and the level of emotion focused coping stress management technique on student leaders' task performance. Therefore, it was concluded that moderation had occurred but with fairly a small effect.

A look at change statistics in the model summary shown in Table 5 was necessary.

Table 5. Model Summary of Avoidant Focused Coping Stress Management Technique

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.180 ^a	.032	.031	.40930	.032	18.78	2	1123	.000
2	.728 ^b	.530	.529	.28545	.497	1186.90	1	1122	.000

- a. Predictors: (Constant), Gender, Avoidant Focused
b. Predictors: (Constant), Gender, Avoidant Focused, Gender*Avoidant Focused

Further, the findings of the study show that model 2 (with interaction term) accounted for significantly more variance than model 1. Whereas model 1 only accounted for 3.1% ($R^2=.031$) of the variability in the dependent variable Model 2 with the interaction between gender and level of avoidant focused coping stress management technique added accounted for 53.0% ($R^2=.530$) of the variability in task performance. This means that addition of interaction term significantly accounted for more variance (R^2 Change = .497, $p<.05$) than in model 1. This means that there was an aspect of moderation effect between gender and the level of avoidant focused coping stress management technique on student leaders' task performance. Therefore, it was concluded that moderation had occurred with a considerably large effect.

In sum total, the findings of the current study show on table 1 that female student leaders had slightly higher scores of 3.23 and a standard deviation of .30 in task performance, compared to

the male student leaders at a score of 3.02 and a standard deviation of .269. Secondly, the results of table 2 indicate that gender had effect on task performance with a variance of 12.4% in task performance among student leaders. Moreover, the findings of tables 3, 4 and 5 reveal that there was a significant moderating effect between gender and the level of problem focused coping, emotion focused coping and avoidant focused coping on task performance among student leaders.

4. Summary of the Findings on Moderation effect of Gender on the Relationship Between Stress Management Techniques and Task Performance

In summary, the study sought to test the hypothesis that "there was no statistically significant moderating effect of gender on the relationship between stress management techniques and task performance among secondary school student leaders". The findings of the study revealed that, all the three stress

management techniques were significantly correlated with student leader's task performance. Secondly, a sequential correlation analysis which was employed to investigate whether student leaders' gender was a possible moderator of the relationship between stress management techniques and task performance revealed that the intervening variable (gender) significantly moderated the relationship between all the three stress management techniques and task performance. Hence, the null hypothesis was rejected, and conclusion reached there is statistically significant moderating effect of gender on the relationship between stress management techniques and task performance among secondary school student leaders.

From the findings it was concluded that gender of the student leader specifies conditions under which student stress management technique is related to task performance. There is an interaction effect, whereby introducing gender of the student leader changes the direction or magnitude of the relationship between stress management techniques and task performance. In all the cases, the moderation effect was enhancing, that is; knowledge of gender increased predictability of the effect of the stress management techniques on task performance. However, given that the study had shown that, female student leaders perform significantly better than their male counterparts in their leadership tasks, it was concluded that improved task performance was attributed to female students, while their male counterparts accounted for reduced task performance.

5. Conclusion and Recommendations

In a nutshell, gender had a mediation effect on the relationship between problem focused coping and emotion focused coping techniques on task performance. Female student leaders are more effective in task performance than male student leader. Therefore, given that female student leaders perform better in task performance than their male counterparts, it was concluded that improved task performance was attributed to female student leaders, while the male student leader's registered reduced task performance.

Effectiveness in task performance is at the core of student leadership and general atmosphere in the

institution. In this regard, the ministry of education should liaise with the County education officials to put in place clear policies on stress management techniques.

Overall, a serious intervention in the choice of stress management techniques is required as it affects student leaders in the performance of their tasks at different levels of operations. Therefore, appropriate and timely intervention is required to address stressors in the life of student leaders.

References

- American Psychological Association. (APA, 2014). American Psychological Association Survey Shows Teen Stress Rivals that of Adults, February 11, and 2014. To study Stress among Adolescents.
- American Psychological Association. (APA, 2015). Stress Management and How to Strengthen Your Social Network Support.
- American College Health Association. (2012). National College Health Assessment Spring 2012 reference group executive summary. Retrieved from http://www.achancha.org/docs/ACHANCHA_II_UNDERGRAD_ReferenceGroup_ExecutiveSummary_Spring2012.pdf.
- Aselton, P. (2012). Sources of stress and coping in American college students who have been diagnosed with depression. *Journal of Child and Adolescent Psychiatric Nursing*, 25(3), 119–123.
- Bouchard, L. C., & Shih, J. H. (2013). Gender differences in stress generation: Examination of interpersonal predictors. *Journal of Social and Clinical Psychology*, 32(4), 424–445.
- Carter, S. (2012). Stress Women Know It, Stressed Men not so Much. *Psychology Today*. Sussex. Sussex Publishers.
- Chao, R. C. L. (2012). Managing Perceived Stress Among College students: The Role of Social Support and Dysfunctional Coping. *Journal of College Counseling*, (15), 5–21.
- Contrada, R. J., & Baum, A. (2012). *The Handbook of Stress Science, Biology, Psychology and Health*. New York, NY: Springer.
- Creswell, J. (2010). Mapping the developing landscape of mixed methods research, in Sage

- Handbook of Mixed Methods in Social & Behavioral Research.*
- Gunby, J. D & Schutz, P.A. (2016, November). Developing A Mixed Method Proposal. A Practical Guide for Researchers. *American Educational Research Journal*, Sage Publications.
- Hall, R.F. (2013). *Mixed Methods Research: In Search of a Paradigm-Semantic Scholar*. Sage Publications
- Igharo, K. (2013, March). International Researcher Stress: Effects on School Leadership and Its Management. School of Education, University of Gambia.
- Mertens, D.M. (2011). Mixed Methods Research. *Journal of Mixed Method Research*, Sage Publications.
- Mgomezulu, V. Y, Wamba, N. & Shawa, L.B. (2013). Training of Learner Leaders in Secondary Schools in Botswana. *African Journal of Teacher Education*. 3(1).
- Monteiro, M. N, Balogun, S. K & Oratile, K.N. (2014, June). Managing stress: the influence of gender, age and emotion regulation on coping among university students in Botswana. *International Journal of Adolescence and Youth*, 19(2), 153–173. doi: 10.1080/02673843.2014.908784PMCID: PMC4037844.
- McClellan, J. (2012). Managing Stress in Advising: What Administrators Can Do. NACADA. Clearinghouse of Academics Advising Resources.
- Madhyastha, S., Latha, K.S., & Kamath, A. (2014). Stress, Coping and Gender Differences in Third Year Medical Students. *Journal of Health Management*, 16(2), 315–326.
- Sarafino, E.P. (2012). *Health Psychology: Biopsychosocial Interactions*. 7th Ed. Asia.
- Wiley. Jayson, S. (2014, February 11). Teens feeling stressed and many not managing it well, *USA Today*. EST.
- Ji, H.L. & Seo, M. (2016, November 14). Profiles of Coping Strategies in Resilient Adolescents. *Sage Journals*, doi 10.1177/0033294116677947, Department of Education, Korea University, Korea.
- Kumar, S. (2016) To Study the Stress among Adolescent. *The International Journal of Indian Psychology*, 3(4), 56.
- Lian, S. Tam, C. L. (2014). Work Stress, Coping Strategies and Resilience. A study among Working Females. *Asian Social Science Journal*, 10(12), 118–127.
- Lovelace, L.M.K. (2012). The Effect of Coping Strategies on Burden among Caregivers. Louisiana State University.
- McLeod, S. A. (2015). Stress Management. Retrieved from www.simplypsychology.org/stress-management.html.
- Sharmila, S. (2016). Emotion and Problem Focused Coping Strategies: A Comparative Study of Male and Female Engineering Students in Chennai City. *International Journal of Advance Research in Computer Science and Management Studies*, 4(8), 72–80.
- Sincero, M. (2012). How does Stress Affect Performance? Retrieved December 19th, 2014, from [Explorable.com: http://explorable.com/how-does-stress-affect-performance](http://explorable.com/how-does-stress-affect-performance).
- Pedersen, T. (2015). Avoidance Coping Strategies Linked to Depression, Anxiety in Student Veterans. *Psch central*. Retrieved on July 24, 2016, from <http://psychcentral.com/news/2015/03/29/avoidant-coping-strategies-linked-to-depression-anxiety-in-student-veterans/82900.html>.
- Pourrajab, M., Rabbani, M. & Kasmainezzhadfar, S. (2014). Different Effects of Stress on Males and Female Students. *Journal of Counseling and Education*, 3(3), 31–39.
- Weiss, T.W. (2012). Workplace Stress: Symptoms and Solutions. Retrieved from <http://www.10thoctober.com>, 2015.
- Zhang, Z. (2013). Stress, Coping and Depression in Adolescents: A Longitudinal Study of Adolescent Health. University of Nebraska.