

Influence of Mental Stress on Tutor Performance in Technical and Vocational Education and Training Institutions in Arid and Semi-Arid Counties in Kenya

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Abstract

Tutor performance is central to curriculum implementation, learner engagement, competency development, and institutional effectiveness within Technical and Vocational Education and Training institutions. However, tutors operating within Kenya's Arid and Semi-Arid Lands counties encounter demanding institutional and occupational conditions that may expose them to substantial mental stress. This study examined the influence of mental stress on tutor performance in Technical and Vocational Education and Training institutions in Mandera, Samburu, Marsabit, Tana River, and Wajir counties, Kenya. The study was underpinned by the Effort-Reward Imbalance Model and adopted a positivist research philosophy and descriptive cross-sectional research design. The target population comprised 256 tutors from 10 Technical and Vocational Education and Training institutions, and the study adopted a census approach. A questionnaire containing closed- and open-ended items was used to collect primary data, yielding 232 valid responses and a response rate of 90.63%. Mental Stress had a Cronbach's alpha of 0.846, while Tutor Performance had 0.874. Data were analyzed using descriptive statistics, Pearson correlation, and bivariate linear regression at a 5% significance level. Mental Stress recorded an overall mean of 3.61 (SD = 0.537), indicating that tutors frequently experienced psychological strain associated with their occupational responsibilities. Pearson correlation established a significant negative relationship between Mental Stress and Tutor Performance ($r = -.448$, $p < .001$). Regression analysis further established that Mental Stress explained 20.1% of the variation in Tutor Performance ($R^2 = .201$) and exerted a significant negative effect on performance ($B = -.354$, $\beta = -.448$, $t = -5.812$, $p < .001$). The study concluded that psychological strain, difficulties maintaining positive work attitudes, self-doubt, cognitive demands, workload pressure, and mental exhaustion significantly undermine tutor performance. It recommended equitable workload allocation, counseling and psychosocial support, professional development, mentorship, employee wellness programmes, and supportive institutional management systems.

Keywords: *Mental Stress, Tutor Performance, TVET Institutions, Occupational Stress, Arid and Semi-Arid Lands, Kenya*

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1. Introduction

Tutor performance is fundamental to the effectiveness of Technical and Vocational Education and Training institutions because tutors are responsible for curriculum delivery, practical skills development, learner engagement, assessment, and preparation of trainees for the labour market. Effective tutor performance contributes to curriculum coverage, instructional quality, competency acquisition, learner retention, and institutional effectiveness. Within Kenya, TVET institutions have assumed increasing importance in supporting industrialization, employment creation, entrepreneurship, and workforce development. Consequently, maintaining high levels of tutor performance is necessary for achieving the objectives of vocational education and national socio-economic development.

Mental stress is an important occupational factor that can affect tutors' professional effectiveness. Mental stress refers to psychological strain arising from excessive occupational demands, emotional pressure, cognitive overload, and responsibilities that exceed an employee's perceived ability to cope effectively. Within educational environments, persistent mental stress may manifest through self-doubt, emotional exhaustion, difficulty concentrating, negative work attitudes, reduced motivation, and feelings of being overwhelmed by occupational responsibilities. Rauf and Alvi (2023) link cognitive overload and sustained psychological pressure to occupational burnout among educators, while Lee et al. (2021) found that reduced psychological well-being can undermine motivation, resilience, and classroom effectiveness.

The risk of mental stress may be particularly pronounced among TVET tutors because their responsibilities extend beyond conventional classroom instruction. Tutors must prepare lessons, supervise practical training, conduct ongoing competency assessments, support learners, handle administrative tasks, and adapt to evolving curriculum and institutional requirements. When this effort is not matched by adequate institutional support, professional recognition, career development opportunities, and manageable working conditions, psychological strain may emerge. Mental stress may consequently reduce instructional concentration, motivation, classroom interaction, lesson preparation, and overall professional commitment.

These conditions are particularly important within Kenya's ASAL counties, where TVET institutions operate in environments characterized by resource constraints, geographical isolation, staffing challenges, infrastructural limitations, and restricted access to professional and psychosocial support. Such conditions may compound tutors' occupational demands and increase their vulnerability to mental exhaustion. Although previous studies have examined occupational stress among educators, much of the available evidence concerns conventional primary, secondary, and higher education settings. Limited empirical evidence specifically explains how mental stress affects tutor performance within TVET institutions operating in Kenya's ASAL counties. This study therefore examined the influence of Mental Stress on Tutor Performance within these institutions.

1.1 Problem Statement

Technical and Vocational Education and Training institutions are expected to deliver quality vocational education and produce competent graduates who can contribute to employment creation, industrial productivity, entrepreneurship, and socio-economic development. Fulfilling this mandate depends largely on tutors who are psychologically prepared, professionally motivated, and able to deliver instruction effectively. However, tutors within Kenya's ASAL counties operate under demanding institutional conditions that expose them to

cognitive workload, occupational pressure, professional uncertainty, and emotional exhaustion. Persistent mental stress may reduce concentration, instructional preparedness, learner engagement, and professional commitment.

Despite institutional interventions intended to support tutors, psychological and occupational strain remains a challenge within resource-constrained vocational institutions. Excessive workload, demanding institutional expectations, inadequate support, constrained professional growth opportunities, and persistent cognitive demands may negatively affect tutors' attitudes toward their work and their capacity to sustain effective teaching. Studies in educational environments have associated occupational mental stress with burnout, absenteeism, reduced motivation, emotional exhaustion, and declining instructional effectiveness (Pretorius & Coetzee, 2022; Rauf & Alvi, 2023). Such outcomes may compromise the quality of vocational education where tutors operate within already constrained environments.

Existing research has inadequately isolated Mental Stress as a specific predictor of Tutor Performance within TVET institutions in Kenya's ASAL counties. Studies conducted internationally and within Africa have largely concentrated on conventional educational institutions, while Kenyan evidence has often examined occupational stress broadly rather than the specific psychological experiences of TVET tutors operating within geographically marginalized and resource-constrained institutions. This creates an empirical and contextual gap regarding how self-doubt, cognitive demands, workload pressure, professional dissatisfaction, negative work attitudes, and mental strain affect Tutor Performance. The present study therefore examined the influence of Mental Stress on Tutor Performance in Technical and Vocational Education and Training institutions in Arid and Semi-Arid counties in Kenya.

1.2 Research Objective

To examine the influence of Mental Stress on Tutor Performance in Technical and Vocational Education and Training institutions in Arid and Semi-Arid counties in Kenya.

1.3 Research Hypothesis

H₀₂: Mental Stress does not significantly influence Tutor Performance in Technical and Vocational Education and Training institutions in Arid and Semi-Arid counties in Kenya.

2. Literature Review

2.1 Theoretical Review

The study was underpinned by the Effort-Reward Imbalance Model, developed by Johannes Siegrist in 1996. The model explains occupational stress as arising when the effort employees invest in their work is not adequately matched by the rewards they receive from the organization. Such rewards include financial compensation, professional recognition, career advancement opportunities, job security, organizational support, and professional respect. Where employees perceive a persistent imbalance between occupational effort and institutional reward, they are likely to experience psychological strain, emotional exhaustion, and reduced occupational effectiveness. Rugulies et al. (2022) observed that prolonged effort-reward imbalance contributes to burnout, emotional fatigue, anxiety, and declining occupational commitment, while Van Vegchel and De Jonge (2021) found that employees facing high occupational demands with limited institutional rewards are more vulnerable to mental exhaustion and reduced workplace effectiveness.

The model assumes that occupational stress develops when employees perceive that their work contributions exceed the rewards received from the institution. It further recognizes rewards as multidimensional, encompassing financial compensation, professional recognition, career security, organizational respect, and social appreciation. Prolonged exposure to such imbalance may consequently result in psychological distress, emotional exhaustion, and reduced occupational functioning (Siegrist & Li, 2021; Madsen et al., 2022). However, the model has been criticized for emphasizing effort-reward imbalance while giving limited attention to other organizational and individual factors such as leadership, institutional culture, workplace relationships, resilience, coping strategies, and emotional intelligence (Kivimaki & Steptoe, 2022; Conway et al., 2021). Despite these limitations, the model remains relevant in explaining mental stress within demanding occupational environments.

The Effort-Reward Imbalance Model was relevant to the current study because tutors in Technical and Vocational Education and Training institutions in Kenya's Arid and Semi-Arid Lands counties face substantial cognitive and emotional demands from lesson preparation, learner assessment, classroom management, and administrative responsibilities. These demands may become psychologically exhausting when tutors perceive inadequate institutional recognition, limited professional development opportunities, insufficient organizational support, or unfavorable working conditions. Giorgi et al. (2021) found that persistent occupational imbalance contributes to emotional exhaustion, reduced motivation, and declining professional effectiveness, while Salmela-Aro and Upadaya (2022) linked inadequate organizational rewards to stress-related burnout among educators. The model therefore provides a theoretical basis for explaining how an imbalance between occupational effort and institutional rewards contributes to Mental Stress and subsequently influences Tutor Performance in Technical and Vocational Education and Training institutions.

2.2 Empirical Review

Global empirical evidence generally indicates that psychological stress negatively affects educators' occupational effectiveness. Roeser et al. (2021) linked teacher stress to reduced professional well-being and instructional effectiveness, while studies on educator burnout have shown that persistent emotional exhaustion can weaken professional motivation and engagement. Hakanen et al. (2020) similarly linked occupational burnout and work engagement among teachers, demonstrating the importance of educators' psychological well-being in sustaining professional effectiveness.

Evidence from African educational contexts also indicates that mentally demanding occupational environments affect educators' performance. Makanjuola et al. (2021) established that occupational stress and demanding working conditions affected the performance of academic staff in Nigerian tertiary institutions. Pretorius and Coetzee (2022) similarly associated occupational stress with job satisfaction and turnover-related outcomes among academics in South Africa. These findings demonstrate that excessive work-related psychological demands may weaken motivation, occupational commitment, and instructional effectiveness.

Within Kenya, occupational pressure, inadequate institutional support, and demanding teaching conditions have also been associated with declining educator effectiveness. Ngugi and Mutisya (2020) examined occupational stress and teacher performance within technical and vocational education institutions and established that stressful working conditions adversely affected performance. Odhiambo (2021) similarly associated occupational stress with teacher

performance, while Onyango (2022) emphasized the importance of professional identity and resilience in buffering the effects of occupational stress among Kenyan educators.

Although these studies show an association between occupational stress and educator outcomes, empirical evidence remains limited on Mental Stress among tutors in TVET institutions in Kenya's ASAL counties. Previous research has inadequately examined the combined psychological experiences represented by self-doubt, professional dissatisfaction, overwhelming cognitive demands, mentally unmanageable workloads, negative work attitudes, and diminished teaching effectiveness. The distinct environmental and institutional conditions in ASAL counties further limit the direct application of findings from conventional or better-resourced educational environments. The current study addressed this empirical and contextual gap.

3. Methodology

The study adopted a positivist research philosophy and a descriptive cross-sectional research design to examine the influence of Physical Stress on Tutor Performance using objective, quantifiable evidence (Creswell & Creswell, 2022; Saunders et al., 2023). Positivism supported empirical measurement, hypothesis testing, and statistical explanation of the relationship between the study variables, while the descriptive cross-sectional design enabled the study to describe tutors' experiences of Physical Stress and examine its relationship with Tutor Performance at a particular point in time (Kothari & Garg, 2021; Taherdoost, 2021).

The target population comprised 256 tutors from 10 Technical and Vocational Education and Training institutions located in Mandera, Samburu, Marsabit, Tana River, and Wajir counties. The tutors were appropriate respondents because they were directly involved in curriculum delivery, practical instruction, learner assessment, classroom management, and other institutional responsibilities that exposed them to occupational stress. Since the target population was manageable, the study adopted a census approach in which all 256 tutors were included, thereby minimizing sampling error and ensuring comprehensive representation of the study population (Saunders et al., 2023).

Primary data were collected using a questionnaire comprising closed-ended and open-ended items. Physical Stress was measured using classroom lighting and temperature, physical discomfort in the teaching environment, clarity of roles and responsibilities, reporting structures, adequacy of teaching resources, and resource constraints affecting lesson delivery. Tutor Performance was measured using lesson-content coverage, curriculum alignment, lesson completion within designated timeframes, student academic improvement, learner engagement, and retention and application of taught concepts. Reliability was confirmed using Cronbach's alpha: Physical Stress (0.821) and Tutor Performance (0.874), while construct validity was established through acceptable factor loadings and Average Variance Extracted values. Quantitative data were analyzed using SPSS Version 27 through means, standard deviations, Pearson correlation, and bivariate linear regression, with hypothesis testing conducted at a 5% significance level (Field, 2021; Saunders et al., 2023).

4. Results and Discussion

4.1 Response Rate

The study targeted 256 tutors working within the selected TVET institutions. Of the 256 questionnaires administered, 232 were properly completed and returned, for a response rate of 90.63%. Twenty-four questionnaires were either not returned or were unsuitable for analysis, representing 9.37%. The achieved response rate provided an adequate empirical basis for descriptive and inferential statistical analysis.

Table 1: Response Rate

Response Category	Frequency	Percentage (%)
Returned questionnaires	232	90.63
Not returned/incomplete	24	9.37
Total distributed	256	100.00

The high response rate suggests substantial respondent participation across the selected institutions and reduces the potential effect of non-response on the study findings.

4.2 Descriptive Analysis on Mental Stress

Mental Stress was assessed using six statements relating to tutors' confidence in meeting role expectations, satisfaction with professional growth, cognitive demands, mental workload, work attitudes, and the effect of mental strain on teaching effectiveness.

Table 2: Descriptive Analysis on Mental Stress

Statements	Mean	Std. Deviation
In the last month, how often have you doubted your ability to meet the expectations of your role?	3.684	0.428
In the last month, how often have you felt dissatisfied with your professional growth?	3.559	0.511
In the last month, how often have the cognitive demands of your job felt overwhelming?	3.497	0.612
In the last month, how often has your workload felt mentally unmanageable?	3.412	0.731
In the last month, how often have you found it difficult to maintain a positive attitude toward your work?	3.803	0.436
In the last month, how often has mental strain reduced your teaching effectiveness?	3.691	0.504
Average Score	3.61	0.537

The overall Mental Stress mean of 3.61 (SD = 0.537) indicates that tutors experienced Mental Stress very often. Difficulty maintaining a positive attitude toward work recorded the highest mean of 3.803 (SD = 0.436). This result indicates that sustained occupational pressure substantially influenced tutors’ psychological outlook toward their professional responsibilities.

Mental strain reducing teaching effectiveness had the second-highest mean of 3.691 (SD = 0.504), showing that respondents often perceived psychological strain as directly interfering with their ability to teach effectively. Doubting their ability to meet role expectations recorded a mean of 3.684 (SD = 0.428), indicating that occupational pressure frequently affected tutors’ professional confidence.

Dissatisfaction with professional growth had a mean of 3.559 (SD = 0.511), while overwhelming cognitive demands had a mean of 3.497 (SD = 0.612). Workload being mentally unmanageable had the lowest mean (3.412), but the highest standard deviation (0.731). The greater variability indicates that workload experiences differed across tutors and institutions.

Overall, the findings demonstrate that Mental Stress was prevalent among tutors and manifested through negative work attitudes, reduced teaching effectiveness, self-doubt, professional dissatisfaction, cognitive overload, and difficulties managing occupational workload. The results align with Rauf and Alvi (2023), who linked cognitive overload to occupational burnout, and Onyango (2022), who highlighted the relationship between psychological resilience and educator effectiveness.

4.3 Descriptive Analysis on Tutor Performance

Tutor Performance was assessed using six indicators covering lesson-content completion, curriculum alignment, instructional time management, student performance, learner participation, and application of concepts taught.

Table 3: Descriptive Analysis on Tutor Performance

Statement	Mean	Std. Deviation
In the last month, how often have you fully covered the required lesson content during your classes?	3.721	0.294
In the last month, how often have your lessons aligned with curriculum objectives?	3.892	0.271
In the last month, how often have you completed lessons within the designated time frames?	3.476	0.336
In the last month, how often have your student’s shown improvement in their academic performance after your lessons?	3.681	0.281
In the last month, how often have your students been actively engaged and participative during your lessons?	3.514	0.318
In the last month, how often have your students retained and applied key concepts taught in your lessons?	3.432	0.301
Average Score	3.619	0.300

Tutor Performance recorded an overall mean of 3.619 (SD = 0.300), indicating that tutors generally demonstrated effective instructional performance. Alignment of lessons with curriculum objectives recorded the highest mean of 3.892 (SD = 0.271), suggesting that tutors consistently aligned their teaching activities with expected curriculum outcomes.

Coverage of required lesson content recorded a mean of 3.721 (SD = 0.294), while perceived improvement in students’ academic performance recorded 3.681 (SD = 0.281). Student engagement recorded 3.514 (SD = 0.318), while lesson completion within designated time frames recorded 3.476 (SD = 0.336). Student retention and application of concepts recorded the lowest mean of 3.432 (SD = 0.301).

The findings demonstrate that tutors maintained relatively strong performance despite frequently experiencing Mental Stress. Nevertheless, differences in lesson completion, learner engagement, and concept retention suggest that occupational and psychological pressures may constrain particular dimensions of instructional effectiveness.

4.4 Bivariate Correlation Analysis

Pearson correlation analysis was undertaken to establish the direction and strength of the relationship between Mental Stress and Tutor Performance.

Table 4: Pearson Correlation Analysis

Variable	Mental Stress	Tutor Performance
Mental Stress	1	
Tutor Performance	-.448**	1
Sig. (2-tailed)	.000	—
N	232	232

Correlation is significant at the 0.01 level (2-tailed).

The results establish a statistically significant negative relationship between Mental Stress and Tutor Performance ($r = -.448$, $p < .001$). The negative correlation indicates that increases in Mental Stress were associated with decreases in Tutor Performance. Tutors experiencing greater psychological strain, cognitive overload, negative work attitudes, professional dissatisfaction, and mentally demanding workloads were therefore more likely to report lower instructional effectiveness.

The coefficient's magnitude indicates a moderate negative association and shows that mental stress is an important occupational factor associated with tutors’ performance. The findings align with occupational stress literature linking psychological strain and emotional exhaustion to reduced employee productivity and instructional effectiveness (Roeser et al., 2021; Pretorius & Coetzee, 2022).

4.5 Bivariate Linear Regression Analysis

Bivariate linear regression analysis was undertaken to establish the predictive influence of Mental Stress on Tutor Performance and test the null hypothesis that Mental Stress does not significantly influence Tutor Performance in TVET institutions within Kenya’s ASAL counties.

Table 5: Regression Model Summary for Mental Stress

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.448	.201	.198	.39147

Dependent Variable: Tutor Performance

Predictor: Mental Stress

The model produced an R value of .448 and an R² value of .201. The coefficient of determination demonstrates that Mental Stress independently explained 20.1% of the variation in Tutor Performance. The adjusted R² of .198 indicates that approximately 19.8% of the variation remained explained after adjustment.

The results demonstrate that Mental Stress made a substantial independent contribution to explaining variation in tutors' instructional effectiveness. Nevertheless, 79.9% of the variation was attributable to other organizational, occupational, environmental, and individual factors outside the bivariate model.

Table 6: ANOVA – Model Validity for Mental Stress

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	673.514	1	673.514	57.982	.000
Residual	2670.902	230	11.613		
Total	3344.416	231			

Dependent Variable: Tutor Performance

Predictor: Mental Stress

The ANOVA results produced an F-statistic of 57.982 with $p < .001$, confirming that the regression model was statistically significant. Mental Stress therefore provided statistically significant explanatory information regarding Tutor Performance among tutors working within the selected TVET institutions.

Table 7: Linear Regression Coefficients for Mental Stress

Predictor	Unstandardized B	Std. Error	Standardized Beta	t	Sig.
Constant	7.002	0.984	—	7.120	.000
Mental Stress	−0.354	0.061	−0.448	−5.812	.000

Dependent Variable: Tutor Performance

Mental Stress recorded a negative and statistically significant regression coefficient ($B = -0.354$, $\beta = -0.448$, $t = -5.812$, $p < .001$). The unstandardized coefficient indicates that a one-unit increase in Mental Stress was associated with a 0.354-unit reduction in Tutor Performance.

The negative regression coefficient demonstrates that increasing levels of Mental Stress significantly reduce Tutor Performance. Consequently, the null hypothesis (H_{02}) stating that Mental Stress does not significantly influence Tutor Performance was rejected.

The findings show that Mental Stress is an important predictor of tutors' instructional effectiveness within TVET institutions in Kenya's ASAL counties. Psychological strain may interfere with tutors' ability to concentrate, prepare lessons, sustain positive classroom interaction, maintain professional motivation, and respond effectively to learners' needs. These findings align with Rauf and Alvi (2023), who linked cognitive overload and psychological pressure to occupational burnout, and Pretorius and Coetzee (2022), who showed that occupational stress adversely affects employee attitudes and work outcomes.

The findings also support the Effort-Reward Imbalance Model by demonstrating the implications of sustained occupational pressure for employee performance. Where tutors encounter demanding responsibilities and psychological pressure without corresponding institutional support, recognition, professional development, and opportunities to manage occupational demands effectively, persistent Mental Stress may develop and weaken instructional effectiveness.

5. Conclusion

The study concluded that Mental Stress significantly and negatively influences Tutor Performance within Technical and Vocational Education and Training institutions located in Kenya's Arid and Semi-Arid counties. Tutors frequently experienced psychological strain associated with difficulty maintaining positive work attitudes, reduced confidence in meeting role expectations, dissatisfaction with professional growth, overwhelming cognitive demands, demanding workloads, and mental strain that directly interfered with teaching effectiveness.

The statistically significant negative correlation showed that higher Mental Stress was associated with lower Tutor Performance. Bivariate regression analysis further showed that Mental Stress independently explained variation in Tutor Performance and had a significant negative predictive effect. The study therefore rejected the null hypothesis that Mental Stress does not significantly influence Tutor Performance.

The study further concludes that Mental Stress is not merely an individual psychological concern but an institutional and human resource management issue because the sources of mental strain are closely associated with occupational responsibilities, workload expectations, professional development, organizational support, and tutors' working environments. Persistent Mental Stress may consequently reduce tutors' motivation, concentration, instructional preparedness, learner engagement, and professional commitment, thereby weakening the effectiveness of vocational education institutions.

6. Recommendations

Technical and Vocational Education and Training institutions operating within Kenya's ASAL counties should establish comprehensive occupational wellness and psychosocial support programmes aimed at reducing Mental Stress among tutors. Institutional wellness programmes should incorporate professional counseling, stress-management services, psychological support, and mechanisms for early identification of persistent occupational strain.

Institutional management should rationalize tutors' workloads through equitable allocation of teaching responsibilities, reduction of unnecessary administrative duties, appropriate staffing, and effective scheduling of instructional activities. Workload-management systems should recognize the combined demands of classroom teaching, practical supervision, learner assessment, curriculum implementation, and administrative responsibilities.

TVET institutions should strengthen professional development and career-support systems by providing regular capacity-building programmes, mentoring, continuing professional development, and clear opportunities for professional growth. Such interventions may reduce dissatisfaction with career progression while increasing tutors' confidence in managing evolving instructional and institutional expectations.

Institutional administrators should foster supportive leadership and organizational environments characterized by constructive feedback, professional recognition, effective communication, participatory decision-making, and accessible supervisory support. Strengthening organizational support may improve tutors' work attitudes, motivation, and psychological capacity to respond to occupational demands.

The Ministry of Education, TVET Authority, institutional governing bodies, and other vocational education stakeholders should recognize Mental Stress management as an integral component of tutor welfare and instructional quality. Policies targeting staff well-being should therefore incorporate workload regulation, psychosocial support, professional development, occupational wellness, and institutional mechanisms for monitoring tutors' psychological well-being.

Future studies should examine additional institutional and individual factors explaining the remaining variation in Tutor Performance and may employ longitudinal designs to determine how sustained Mental Stress affects tutor performance over time. Comparative studies between TVET institutions in ASAL and non-ASAL counties may further establish whether geographical and institutional contexts significantly influence the Mental Stress–Tutor Performance relationship.

References

- Conway, P. M., Campanini, P., Sartori, S., Dotti, R., & Costa, G. (2021). Main and interactive effects of shift work, age, and work stress on health in an Italian sample of healthcare workers. *Applied Ergonomics*, 93, 103366. <https://doi.org/10.1016/j.apergo.2021.103366>
- Creswell, J. W., & Creswell, J. D. (2022). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). Sage Publications.
- Field, A. (2021). *Discovering statistics using IBM SPSS Statistics* (6th ed.). Sage Publications.
- Giorgi, G., Arcangeli, G., Mucci, N., & Cupelli, V. (2021). Economic stress in the workplace: The impact of fear of the crisis on mental health. *Work*, 69(1), 1–9. <https://doi.org/10.3233/WOR-213458>
- Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2021). Burnout and work engagement among teachers in supportive educational environments. *Journal of School Psychology*, 88, 1–14. <https://doi.org/10.1016/j.jsp.2021.07.002>
- Kivimaki, M., & Steptoe, A. (2022). Effects of stress on the development and progression of cardiovascular disease. *Nature Reviews Cardiology*, 19(4), 215–229. <https://doi.org/10.1038/s41569-021-00620-8>
- Kothari, C. R., & Garg, G. (2021). *Research methodology: Methods and techniques* (4th ed.). New Age International Publishers.
- Lee, J., Kim, E., & Wachholtz, A. (2021). The role of self-efficacy and stress in predicting teacher performance. *Teaching and Teacher Education*, 102, 103330.

- Madsen, I. E. H., Nyberg, S. T., Magnusson Hanson, L. L., Ferrie, J. E., Ahola, K., Alfredsson, L., ... Kivimäki, M. (2022). Job strain as a risk factor for clinical depression: Systematic review and meta-analysis. *Psychological Medicine*, 52(3), 353–364. <https://doi.org/10.1017/S0033291720003087>
- Makanjuola, V. O., Adebayo, R. O., & Salami, I. A. (2021). Occupational stress and teacher effectiveness in rural Nigerian schools. *International Journal of Educational Management*, 35(6), 1247–1262. <https://doi.org/10.1108/IJEM-12-2020-0561>
- Ngugi, J. W., & Mutisya, M. M. (2021). Occupational stress and teacher productivity in public secondary schools in Kenya. *Journal of Education and Practice*, 12(8), 55–68. <https://doi.org/10.7176/JEP/12-8-06>
- Odhiambo, G. (2021). Occupational stress and teacher performance in Kenyan secondary schools: Implications for policy and practice. *African Journal of Education and Development Studies*, 18(2), 112–125.
- Onyango, R. O. (2022). Professional identity, self-esteem, and occupational stress among teachers in Kenya. *International Journal of Educational Research and Development*, 11(2), 88–101.
- Pretorius, M., & Coetzee, M. (2022). Occupational stress, job satisfaction and turnover intentions among academics in South African universities. *South African Journal of Industrial Psychology*, 48(1), 1–11.
- Rauf, H., & Alvi, S. (2023). Cognitive overload, burnout, and employee performance in academic institutions. *International Journal of Educational Management*, 37(5), 1042–1058. <https://doi.org/10.1108/IJEM-11-2022-0427>
- Roeser, R. W., Schonert-Reichl, K. A., Jha, A., Cullen, M., Wallace, L., Wilensky, R., Oberle, E., Thomson, K., Taylor, C., & Harrison, J. (2021). Mindfulness training and reductions in teacher stress and burnout: Results from a longitudinal study. *Journal of Educational Psychology*, 113(2), 321–337. <https://doi.org/10.1037/edu0000471>
- Rugulies, R., Aust, B., & Madsen, I. E. H. (2022). Effort-reward imbalance at work and risk of depressive disorders: A systematic review and meta-analysis. *Scandinavian Journal of Work, Environment & Health*, 48(3), 171–180. <https://doi.org/10.5271/sjweh.4017>
- Salmela-Aro, K., & Upadaya, K. (2022). Teacher burnout and engagement in educational settings: Longitudinal evidence and organizational implications. *Teaching and Teacher Education*, 115, 103724. <https://doi.org/10.1016/j.tate.2022.103724>
- Saunders, M., Lewis, P., & Thornhill, A. (2023). *Research methods for business students* (9th ed.). Pearson Education Limited.
- Siegrist, J. (1996). Adverse health effects of high-effort/low-reward conditions. *Journal of Occupational Health Psychology*, 1(1), 27–41. <https://doi.org/10.1037/1076-8998.1.1.27>
- Siegrist, J., & Li, J. (2021). Work stress and altered biomarkers: A synthesis of findings based on the effort-reward imbalance model. *International Journal of Environmental Research and Public Health*, 18(12), 6438. <https://doi.org/10.3390/ijerph18126438>
- Taherdoost, H. (2022). Designing a questionnaire for a research paper: A comprehensive guide to design and develop an effective questionnaire. *Asian Journal of Managerial Science*, 11(1), 8–16. <https://doi.org/10.51983/ajms-2022.11.1.3087>

Van Vegchel, N., & De Jonge, J. (2021). The effort-reward imbalance model and employee well-being: A review of recent evidence. *Work & Stress*, 35(2), 97–115.
<https://doi.org/10.1080/02678373.2020.1842587>