

The Moderating Effect of Social Support on the Relationship Between Occupational Stress Interventions and Performance of Academic Staff in a Subset of Public Kenyan Universities

Jane Muthoni Kinuthia¹ & James Kiragu

¹pj.muthoni@gmail.com

<https://doi.org/10.62049/jkncu.v4i2.104>

Abstract

Occupational stress is a concept that has received a lot of attention from scholars. Knowledge workers, such as academic staff in universities, are prone to suffering from high levels of stress arising from work demands. This study set out to investigate the moderating role of social support in the association between occupational stress interventions and academic staff performance in a subset of Kenyan public universities. The research used a cross-sectional, descriptive, and explanatory design. Three public institutions with a combined total of 3277 academic staff members—Egerton, Kenyatta, and Maseno universities—constituted the observation unit. Using the Krejcie and Morgan formula, the sample size was calculated to be 342. The two-step Zendek and Keppel (2000) method for testing moderation was used in the study. Social support was found to mitigate the connection between academic staff performance and occupational stress interventions at a 95% confidence level. This is a result of social support's ability to reduce stress. Therefore, to have more productive staff members, public institutions should look for ways to assist at the organizational and supervisory levels. To provide the necessary assistance to the workers they supervise, HR managers should also provide social support training to the supervisors. The Job-Demand-Control-Support (JDCS) model supports the moderating influence of social support on the connection between OSI and staff performance.

Keywords: Social Support, Occupational Stress Interventions/Therapies, Performance of Academic Staff, Job-Demand-Support-Control Theory

Introduction

Workers spend a large amount of time at the workplace. Therefore, it is anticipated that stress at work will significantly affect both their performance and general well-being. In the Gallup study from 2023, 44% of workers reported feeling stressed out the day before. Kenyan colleges have the power to advance the country's political, social, and economic development. Their task is to develop a labor force that possesses the abilities required to propel an economy. Because of this, higher education plays a crucial role in every culture on the planet, and the effectiveness of a university is a key sign of the health of an educational system. The performance of academic staff is vital to a university's success since they carry out the fundamental responsibility of universities, which is to disseminate information (Suryaman, 2018; Nebay *et al.*, 2020).

In the past, the teaching profession was appealing because of its low workload, long tenure, and additional benefits like conference travel abroad. However, according to recent research, university teaching staff members are among the most stressed professions (Mwenda, Kiffleman, & Kimani, 2019). The tension stems from the fact that most instructors are now unemployed or underemployed, face a lot of pressure to write papers, and have to deal with the ever-increasing workload (Suryaman, 2018). Research conducted in Europe has demonstrated that several factors, such as time constraints, work overload, a lack of resources and funding, a lack of recognition, a low salary, a lack of involvement in management, and shifting job roles, can contribute to occupational stress in academic staff members (Nebay *et al.*, 2020).

Mwenda, Kiffleman, and Kimani (2019) claim that occupational stress is a problem that faculty members in Kenyan institutions face. Universities have undergone periodic changes recently, and these adjustments have resulted in an increase in the workload for academic staff, which is very taxing. For example, a two-semester academic year was divided to allow academics ample time for study and service. The three semesters that make up the modern academic year negatively impact and strain instructors' work-life balance. Leiyan and Kaamara (2017) found that 84.3% of JKUAT lecturers reported feeling stressed out at work. A survey by UNESCO (2022) also cites that an increase in burnout among Kenyan lecturers is caused by escalating workload, low pay, reduction of salary and wages due to COVID-19 pressures, and slow job progression. Besides, student enrolment has increased by 70% over the last decade, but the number of professors has increased by only 10%.

Moreover, there have been transformations in the modes of learning in Kenyan universities. Besides the traditional regular learning type, other modes such as weekend, holiday-based, evening, and distant learning have been introduced. This has presented new dynamics of working with mature students, and lecturers need to be flexible to cater to the unique and diverse needs of non-traditional students (Karihe, Namusonge & Iravo, 2015).

A moderator is a variable that modifies the relationship of affiliation between the dependent and the independent variables (Jaciw, Unlu, & Nguyen, 2021). The current study hypothesized that the association between academic staff performance and occupational stress interventions is moderated by social support. Social integration, social ties, and major group relationships are examples of social support. It is a collection of interpersonal and social behaviors that are thought to decrease, stabilize, or increase constructive coping.

Benefits to mental health, including feelings of admiration, care, attention, and delight, have been associated with social support (Setiawan, 2023).

Social support has been classified using different typologies. Gu, Hu, Hu, and Wang (2016) groups social support into objective and subjective support. Others have classified it into perceived instrumental social support, which involves support when dealing with practical issues such as medical emergencies or loans to pay bills. There is also emotional social support, which relates to having people turn to when one is going through an emotional turmoil or even when one feels lonely (Setiawan, 2023).

Within the workplace, social support can also be divided into three categories: perceived peer, perceived supervisor, and perceived organizational support. Employees' perception of the organization's concern for their well-being is known as perceived organizational support. The degree to which workers give the sense that their managers value their commitments and are concerned about their well-being is known as perceived supervisor support. The extent to which employees believe their co-workers are prepared to lend a hand at work to complete tasks is known as perceived peer support (Nasurdin, Ling & Khan, 2018; Garcia & Pedrogo, 2022).

The goal of occupational stress therapies is to improve people's mental health. It is believed that lecturers who are in good mental health perform better. Given that social support has been shown to enhance mental health and reduce anxiety, it makes sense that it might act as a moderator of this relationship (Todd *et al.*, 2016; Setiawan, 2023).

Universities in Kenya have used OSI to varying degrees. Primary-level interventions are preventive, with the goal of their adoption being to stop employees from experiencing stress in the first place. By taking this proactive approach, negative consequences are prevented from occurring. They are intended to lessen the stress that employees perceive from management, work layout, and organizations (Nielson & Nielson, 2017). Secondary stress therapies seek to halt or reverse the development of stress-related illness, whereas primary stress interventions are preventive. Rehabilitating workers who have suffered from the negative consequences of stress is the goal of tertiary interventions (Holman & O'Connor, 2018).

The primary, secondary, and tertiary occupational stress therapies were the main emphasis of this study. Job redesign, work-life balance, and leadership development at the primary level were examined. Career planning, conflict resolution, and health promotion activities made up the secondary interventions. Lastly, disability management, vocational rehabilitation, and employee support programs comprised the tertiary interventions.

Previous studies have conceptualized social support in the workplace as perceived supervisor support (Sadiya & Ali, 2016) or a combination of supervisor and organizational support (Kalidass & Bahron, 2015; Burns, 2016). This study's social support indicators were perceived as organizational, supervisor, and co-worker support because this typology is relevant to a workplace situation. The instrument to measure social support in this study was adapted from a survey by Kalidass and Bahron (2015).

Rationale

According to the Global Workforce World Report (2023), 44% of employees said they experienced stress the previous day. Stress at work is a reality in Kenyan institutions these days. Leiyen and Kamaara (2017) found that 84.3% of Jomo Kenyatta University of Agriculture and Technology (JKUAT) instructors reported experiencing work-related stress in their survey. This is a relatively high percentage and indicates a need for attention. A survey by UNESCO (2022) also cites there is an increase in burnout among Kenyan lecturers caused by escalating workload, low pay, and reduction of salary and wages due to COVID-19 pressures and slow job progression.

Moreover, student enrolment has increased by 70% over the last decade, but the number of professors has increased by only 10 % (Ng'ang'a, 2022). It is impossible to eradicate work stress. Subsequently, to reduce excessive levels of stress, universities have implemented occupational stress therapies at different levels. The body of research indicates that numerous investigations have been conducted to ascertain the association between occupational stress interventions and workers' task performance across various industries and nations globally. Depending on the company, this relationship's strength varies (Hua & Dai, 2015; Holman & O'Connor, 2018). However, none of those prior studies focused on Kenyan Public Universities. This study, therefore, aimed to close this gap.

Study Objective

The purpose of the study was to investigate the moderating role of social support in the association between occupational stress interventions and academic staff performance in a subset of Kenyan public universities.

Study Hypothesis

The study's premise was that the performance of academic staff in a subset of Kenya's public universities concerning occupational stress interventions is not significantly impacted by social support.

Literature Review

Theoretical Review

The job-demand-control support hypothesis (JDCS) explains social support as a moderating variable of the association between occupational stress interventions and academic staff performance. Developed by Johnson and Hall (1988), the job-demand-control-support (JDCS) theory was an advancement over the job-demand-control (JDC) model of Karasek (1979). The core of this theory is the balance that exists between an employee's autonomy and needs. According to this theory, people who experience high amounts of pressure at work, but little control are more likely to experience stress related to their jobs. It asserts that psychological demands and job control will lead to job strain. The burden, often referred to as psychological job demand, is a result of role conflict and time constraints. The theory has been expanded to include emotional and cognitive demands and interpersonal conflict dimensions. On the other hand, job control, also known as job latitude, is decision authority, the ability of the employee to make decisions regarding their work, and skill discretions, which is the extent of application of skills used by a worker on the job (Mulder, 2017; Portoghese *et al.*, 2020).

By adding a third variable—workplace social support—that mitigates the association between job demand and strain, Johnson and Hall (1988) improved the hypothesis even more. Here, the term "social support" refers to the helpful social contacts that one can obtain from co-workers and managers while on the job. In the extended model, the relationship among occupational demands, social support, and psychological decision latitude is crucial. When there is a combination of high job demand, limited choice freedom, and decreased assistance, the most unfavorable individual performance outcomes are anticipated (Mulder, 2017). When psychological requirements, decision freedom, and social support are strong, and learning and development opportunities are encouraged, better individual performance outcomes are attained. This hypothesis has drawn criticism for being unclear and difficult to test in empirical research. Additional factors have been included, including role ambiguity, role overload, and locus of control (Portoghese *et al.*, 2020).

Studying the moderating role of social support in the relationship between occupational stress interventions and lecturers' performance was a suitable use of the JDCA model. According to the notion, social support buffers the negative effects of stress on the demand for work. Since social support was found to modulate the relationship between occupational stress interventions and academic staff performance, the current study's findings verified the JDCA theory. Thus, it may be said that social support—which fosters learning and growth opportunities—achieves superior individual performance outcomes. According to this notion, excellent employee performance is supported by the improvement of social support at all levels.

Empirical Review

The moderating impact of social support has been the subject of numerous studies. According to one such study by Indra, Sudiro & Rofiq (2023), social support and a reward system can be used to mitigate the harmful effects of job stress. The cross-sectional study concentrated on the semiconductor market in Taiwan. The research examined two models. Model one showed that the relationship between stressors and team performance was moderated by leader support, team reward, and team support. The second model validated the moderating impact of social support on this association. The study concluded that employees' performance is influenced by stress. An appropriate level of stress can improve worker performance.

On the other hand, excessive stress impairs worker performance. They concluded that social support and managerial practices could lessen workers' perceptions of stress. The current study aimed to close the gap in the literature by focusing on the relationship between stress and intervention mechanisms in future research.

The moderating effect of social support on the relationship between anxiety and depression was assessed by Macias *et al.* (2024). Interviews with Wenchuan earthquake survivors were used in this study, and various forms of social assistance were examined. In this cross-sectional survey, 2,808 adult survivors took part. Stress and despair were considerably reduced by social support, especially in female survivors. The study measured employee performance in terms of anxiety. The primary performance measures for academic staff in the current study were publications, teaching, innovativeness, and consulting.

On the other hand, a study by Macias et al. (2024) showed that presenteeism and work-related stress are directly impacted by co-worker support. The aging workforce in the US was the subject of this study. Secondary data from the US Health and Retirement Survey (2010) were used in the study. Cozy relationships between co-workers and employers, respect and concern for each other's stress levels at work, and support from peers all improve work-related results. A direct correlation was found between job stress and presenteeism. It was shown that presenteeism and job stress had an inverse connection with peer support. Instead of using secondary data, this study made use of original data. While presenteeism was used to measure employee performance in this study, innovativeness, teaching, publications, and university service were measured in the current study of lecturers.

Supervisor support was studied by Muindi, Obonyo, and Pokhariyal (2018) as a mediator of the relationship between lecturer performance and salary in Kenyan public universities. This study used a descriptive cross-sectional research approach. Data collection was done through the use of questionnaires. The performance of academic staff was favorable and strongly correlated with supervisor assistance and salary. Supervisor support does not moderate the link, while the interactive term between supervisor support and payment was not significant. While the previous study saw supervisor assistance as both instrumental and emotional, this study took a different approach. Academic staff members' task performance and contextual performance were evaluated in this study. However, the current study employed distinct conceptualizations, measuring academic staff performance in terms of consulting, teaching and supervising, creativity and research, and community service.

Methodology

The positivist philosophy served as the foundation for the investigation. The research used a cross-sectional, descriptive, and explanatory design. Three public institutions with a combined total of 3277 academic staff members—Egerton, Kenyatta, and Maseno universities—constituted the observation unit. The age, location, and number of students at each of the three universities were taken into consideration during their purposeful selection. The respondents from the chosen universities were then chosen using a straightforward random sampling procedure. The sample size was determined using the Krejcie and Morgan formula and was determined to be 342. Primary data were collected systematically and analyzed, and conclusions were drawn from them. The research instrument used in collecting primary data was a questionnaire. The questionnaire was found to be valid in terms of face and content validity. The Cronbach alpha for all the items was above 0.7 and hence had achieved acceptable levels of reliability. Ethical requirements that have been recommended for conducting empirical studies were observed, such as getting authorization from the relevant bodies such as NACOSTI and the universities where the data was collected. The study also complied with the requirement of informed consent. The information was then examined using both descriptive and inferential statistics. Central tendency measures, frequencies, and percentages were used to display the data. Regression analysis was performed at the 0.05 level of significance to determine the kind and strength of correlations between variables using inferential statistics.

The study adopted Zendek and Keppel's (2000) two-step method for testing moderation. It involves having a model (3.4) which includes social support (SS) as an explanatory variable and estimating it as follows:

$$PAS = \beta_0 + \beta_7 OSI + \beta_8 SS + \varepsilon \dots \dots \dots 3.4$$

Another model, 3.5, which was applied in estimating the effect and direction of the moderator on the association between OSIs and the performance of academic staff, was developed as follows:

$$PAS = \beta_0 + \beta_9 OSI + \beta_{10} OSI * SS + \epsilon \dots \dots \dots 3.5$$

Where PAS is the performance of academic staff, OSI is occupational stress interventions, and SS is social support.

β_9 and β_{10} are the coefficients of the interactive terms between social support and OSIs variables. MacKinnon (2013) asserts that the decision rule is that if β_9 and β_{10} in model 3.5 are not significant but β_8 is significant in model 3.4, then social support is entirely a predictor variable. Nevertheless, β_9 and β_{10} in model 3.5 are significant; then, social support moderates the link between OSIs and performance, and β_8 gives the total effect and direction (MacKinnon, 2013).

Findings

Testing for Moderation

H₀: Social support has no significant effect on the association between occupational stress interventions and the performance of academic staff in a Subset of Kenyan Public Universities

The goal of the study was to ascertain how social support affected the link between occupational stress interventions and academic staff performance in a subset of Kenyan public universities. The assumption behind the formulation of the null hypothesis (H₀) is that social support has no discernible impact on the link between occupational stress interventions and academic staff performance in a subset of Kenyan public universities. The moderation effect was determined using two models, as shown in the table below:

Table 1: Regression Results for Moderation

| Model 1 | R | R Square | Adjusted R Square | Std. An error in the Estimate |
|---|-------|----------|-------------------|-------------------------------|
| 1 | .444a | 0.197 | 0.19 | 0.56446 |
| a Predictors: (Constant), Social Support, OSI | | | | |

| | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|------------|----------------|-----|-------------|--------|-------|
| 1 | Regression | 16.915 | 2 | 8.458 | 26.545 | .000b |
| | Residual | 68.822 | 216 | 0.319 | | |
| | Total | 85.737 | 218 | | | |
| a Dependent Variable: Staff Performance | | | | | | |
| b Predictors: (Constant), Social Support, OSI | | | | | | |

| | Unstandardized Coefficients | | Standardized Coefficients | | | 95.0% Confidence Interval for B | |
|----------------|-----------------------------|------------|---------------------------|-------|-------|---------------------------------|-------------|
| | B | Std. Error | Beta | T | Sig. | Lower Bound | Upper Bound |
| (Constant) | 1.834 | 0.268 | | 6.85 | 0.000 | 1.307 | 2.362 |
| OSI | 0.013 | 0.08 | 0.013 | 0.162 | 0.872 | -0.145 | 0.17 |
| Social Support | 0.547 | 0.097 | 0.436 | 5.644 | 0.000 | 0.356 | 0.738 |

Table 2: Regression Results for Moderation

| Model 2 | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---------|-------|----------|-------------------|----------------------------|
| 1 | .431a | 0.186 | 0.178 | 0.56852 |

| | Sum of Squares | df | Mean Square | F | Sig. |
|------------|----------------|-----|-------------|-------|-------|
| Regression | 15.922 | 2 | 7.961 | 24.63 | .000b |
| Residual | 69.815 | 216 | 0.323 | | |
| Total | 85.737 | 218 | | | |

a Dependent Variable: Staff Performance

b Predictors: (Constant), OSI*SS, OSI

| | Unstandardized Coefficients | | Standardized Coefficients | | 95.0% Confidence Interval for B | | |
|------------|-----------------------------|------------|---------------------------|--------|---------------------------------|-------------|-------------|
| | B | Std. Error | Beta | t | Sig. | Lower Bound | Upper Bound |
| (Constant) | 3.574 | 0.27 | | 13.244 | 0.000 | 3.043 | 4.106 |
| OSI | -0.456 | 0.154 | -0.441 | -2.962 | 0.003 | -0.759 | -0.153 |
| OSI*SS | 0.146 | 0.027 | 0.793 | 5.322 | 0.000 | 0.092 | 0.20 |

a Dependent Variable: Staff Performance

Source: Research data (2021)

The two models can be summarized as follows:

Step One: $PAS = 1.834 + 0.013OSI + 0.547SS + \varepsilon$

Step Two: $PAS = 3.514 + 0.456OSI + 0.146OSI*SS + \varepsilon$

While OSIs, social support, and the interaction between OSIs and social support are regressed on performance in the second model, social support is included as one of the explanatory variables in the first model. According to the tables above, β_8 in the first model, which has a beta coefficient of 0.547 and a sig value of 0.000, is significant. The interacting factors between the social support and OSI variables in the second model have significant coefficients, β_9 and β_{10} , with beta values of -0.456 and 0.146 and sig values

of 0.003 and 0.000, respectively. Social support moderates the relationship between OSI and academic staff performance since β_9 and β_{10} in the second model and β_8 in the first model are significant (MacKinnon, 2013). The coefficient of the interaction term shows that for every unit increase in social support, performance increases by 14.6%. Thus, at a 95% confidence level, social support moderates the relationship between academic staff performance and occupational stress interventions. Previous studies have indicated that the relationship between various intervention kinds and worker performance is moderated by social support (Indra, Sudiro & Rofiq, 2023; Macias *et al.*, 2024; Muindi, Obonyo & Pokhariyal, 2018). These results support social support's moderating effect.

The JDCS model supports the moderating effect of social support on the relationship between OSI and staff performance. It suggests that social support buffers stress and job demand. It also suggests that superior individual performance is achieved with high social support. Social support modifies the relationship because it promotes opportunities for learning and development. As a result, social support increases the effectiveness of occupational stress interventions, such as leadership training, in promoting performance.

Conclusion and Recommendations

It was discovered that the connection between academic staff performance and occupational stress interventions was moderated by social support. Social support acts as a buffer for stress. Public universities should thus seek ways of offering help at the organizational and supervisory levels to have more productive employees. HR managers should also train the supervisors on social support so that they can offer the needed support to the employees they oversee.

Perceived organizational social support, perceived peer social support, and perceived supervisor social support were the social support indicators used in the study. In Kenya, the field of occupational stress management is largely unexplored. Thus, the current study provides standard knowledge that may be used to plan studies in the future. The current study provides reliable empirical evidence that, particularly at Kenyan public universities, the intentional application and practice of OSIs can enhance the capacity of academic staff to carry out their duties.

References

- Garcia, N. & Pedrogo, C. (2022). Perceived social support as a moderator of depression and anxiety symptoms in children and youths with psychological trauma. *Behavioral Science Journal*, 37(1), 98-114
- Gallup. (2023). State of the Global Workplace Report. *Gallup*.
<https://www.gallup.com/workplace/349484/state-of-the-global-workplace.aspx>
- Gu, Y, Hu, J., Hu, Y. & Wang, J. (2016). Social support and mental health: a cross-sectional study on the correlation between self-consistency and congruence in China. *Bahrain Medical Society Health Service Research*, 16(2), 207-219.

Holman, D., Johnson, S., & O'Connor, E. (2018). Stress management interventions: Improving subjective psychological well-being in the workplace. *Journal of Occupational Health Psychology, 13*(1), 69–93. DOI: 10.1037/1076-8998.13.1.69

Hua, Y., & Dai, J. (2015). Studies on occupational stress intervention in workplaces abroad: a systematic review. *Chinese Journal of Industrial Hygiene and Occupational Diseases, 33*(10), 759–764. <https://pubmed.ncbi.nlm.nih.gov/26832900/>

Indra, I. P., Sudiro, A. & Rofiq, A. (2023). Organizational and Supervisor Support on Turnover Intention Mediated by Affective Commitment. *Interdisciplinary Social Studies, 2*(4), 1816–1828. <https://doi.org/10.55324/iss.v2i4.381>

Johnson, J. and Hall, E. (1988) Strain, Workplace Social Support, and Cardiovascular: Cross-Sectional Study of a Random Sample of the Swedish Working Population. *American Journal of Public Health, 78*, 1336-1342. <http://dx.doi.org/10.2105/AJPH.78.10.1336>

Kalidass, A., & Bahron, A. (2015). The Relationship between Perceived Supervisor Support, Perceived Organizational Support, Organizational Commitment, and Employee Turnover Intention. *International Journal of Business Administration*. <https://www.semanticscholar.org/paper/The-Relationship-between-Perceived-Supervisor-and-Kalidass-Bahron/4fa706d2c4e40238df575d3d172c17f5eed9bbb>

Karasek Jr., R. A. (1979). Job Demands, Job Decision Latitude, and Mental Strain: Implications for Job Redesign. *Administrative Science Quarterly, 24*, 285-308. <http://dx.doi.org/10.2307/2392498>

Karihe, N., Namusonge, G.S., & Iravo, M. (2015). Effect of working facility stress factors on the performance of employees in Kenyan public universities. *International Journal of Scientific Research and Publication, 5*(5), 2250-3150

Krejcie, R. V. & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30* (3), 607-610

Leiyan, N. & Kamaara, M. (2017). Influence of job design on workplace stress in Public Universities in Kenya; A case study of Jomo Kenyatta University of Agriculture and Technology. *Strategic Journal of Business & Change Management, 4*(25), 453-474

Macias, S, Yolanda, A., Tlapa, D. & Limon, J. (2024). Impact of Co-Worker Support and Supervisor Support Among the Middle and Senior Management in the Manufacturing Industry. *IEEE Access, 9*, 78203-78214, 2021, doi: 10.1109/ACCESS.2021.3082177.

Mohamed, S., Ali, M., Onn, H., Rajah, P., Pahat, B., & Corresponding, M. (2016). The Impacts of Supervisor Support on Employees' Engagement. *International Journal of Research & Review 3, 3*. https://www.ijrrjournal.com/IJRR_Vol.3_Issue.3_March2016/IJRR002.pdf

Mulder, P. (2017). Job demand-control model by Robert Karasek. *ToolsHero*: <https://www.toolshero.com/human-resources-hr/job-demand-control-model>

Mwenda, F., K., Kiflemariam, A. & Kimani, S. (2019). An assessment of the relationship between job stressors and faculty performance in selected private universities in Kenya. *International Journal of Education and Research*, 7(7), 45-56.

Nasurdin, A., M., Ling, C. & Khan, N. (2018). Linking social support, work engagement, and job performance in nursing. *International Journal of Business and Society*, 19(2), 362-386.

Nebay, T. Nahom, K. Esseyas, E. & Mikias, D. (2020). Occupational Stress and associated factors among college instructors in Eritrea: A cross-sectional Study. *Population Medicine*, 3 (9), 1-9

Ng'ang'a, G. (2022). Burnout on the increase in academia, says a report. *University World News Africa Edition*.

Nielson & Nielson (2017). Workplace resources to improve both employee well-being and performance: A systematic review and meta-analysis. *Work & Stress*, 31(2), 101-120.

Portoghese, I., Galletta, M., Leiter, M. P., Finco, G., d'Aloja, E., & Campagna, M. (2020). Job Demand-Control-Support Latent Profiles and Their Relationships with Interpersonal Stressors, Job Burnout, and Intrinsic Work Motivation. *International Journal of Environmental Research and Public Health*, 17(24), 9430. <https://doi.org/10.3390/ijerph17249430>

Setiawan, F. (2023). Supervisor support and job satisfaction: Systematic literature review. *Journal of Creative Student Research*, 1(6), 160-177

Suryaman, S. (2018). Indonesian private university lecturer performance improvement model to improve sustainable organization performance. *International Journal of Higher Education*, 7(1), 59.

Todd, J. Bart, W., Mason, A., Eric, C. Brown, R., T. & Herrenkohl, R. (2016). Mediating and moderating effects of social support in the study of child abuse and adult physical and mental health. *Journal of Orthopsychiatry*, 86(5), 573-583.