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The effect of stress levels and lifestyle on the performance of educational staff at Yogyakarta State University

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Abstract: This study aims to determine the influence of stress level and lifestyle on the performance of education personnel at Yogyakarta State University, both partially and simultaneously. The approach used is quantitative, employing a correlational research design. The research population consisted of 588 education personnel, with a sample of 175 individuals obtained through the proportional random sampling technique and the Harry King nomogram method. Data collection was conducted through questionnaires and documentation, with validity assessed using Product-Moment correlations and reliability evaluated using Cronbach's alpha coefficients. The analysis prerequisite test includes normality, linearity, multicollinearity, and heteroscedasticity tests. Hypothesis tests are conducted using both simple and multiple regression analysis. The results showed a negative and significant influence of stress levels on performance, as indicated by a significance value of 0.000 < 0.05 and a calculated value of -3.835. Lifestyle also had a negative and significant effect on performance, with the same results, namely a significance value of 0.000 < 0.05 and a calculation of -3.835. Simultaneously, stress and lifestyle have a positive and significant effect on performance, as evidenced by a significance value of 0.000 < 0.05 and a calculated effect size of -15.154. These findings are expected to serve as the basis for improving the quality of education and staff performance at Yogyakarta State University.

Keywords: stress level; lifestyle; performance of education personnel.

Introduction

Stress is an inevitable part of human life that comes in various forms, including psychological, academic, and work-related stress (Baratta et al., 2013; Wang, 2015; Atrooz et al., 2021; Malan-Müller et al., 2014). In general, stress can be understood as pressure that tests an individual's ability to cope with life's responsibilities and problems (Brown-Brandl, 2018; Souza-Talarico et al., 2016). Stress theory is divided into three main models: stimulus (stimuli from the environment), responses (psychic and physical changes), and transactional (emotional and cognitive interactions between individuals and the environment) (Rivkin et al., 2017; Simpson & Oliver, 2020). In the context of work, almost all employees experience stress due to high demands and limited time (Hoshino et al., 2016; Vatansever & Turetgen, 2018), and studies show that 27% of workers in the U.S. consider work to be the most significant source of stress (Miranda et al., 2019). Work stress can decrease employee productivity, efficiency, and effectiveness (Vázquez-Cano & Holgueras-González, 2019), particularly when the workload exceeds the abilities or skills possessed (Li et al., 2021; Mendes & Martino, 2020; Wiktorczyk-Kapischke et al., 2023).

Stress is commonly experienced by educators whose performance is constantly monitored and assessed (Wiktorczyk-Kapischke et al., 2021; Abbas & Raja, 2015; Giessing et al., 2019). In addition, students and college students also face tremendous academic pressure (Jahan et al., 2022; Sonoda et al., 2018). In education personnel, stress can arise from four primary sources: interpersonal relationships between employees, intrapersonal relationships with oneself, work performance benchmarks, and environmental conditions of institutions such as Yogyakarta State University (UNY).

UNY does not only depend on academic personnel such as lecturers, but also on education personnel who play an essential role in carrying out the institution's activities. If the stress experienced by educational personnel is not properly managed, it can hinder their performance, which is also influenced by lifestyles that continue to evolve alongside modernity (Febriani et al., 2020; Lin & Liao, 2017; Rochman et al., 2021). Modern lifestyles are often associated with convenience, practicality, and actuality, although these are usually considered to belong only to the elite (Park et al., 2021; Harisya & Mochlasin, 2022).

Lifestyle reflects the moral values and character of individuals in the context of the surrounding society, as well as describing how a person lives their daily life (Sarki et al., 2012). According to Khare (2011), lifestyle is a combination of habits, choices, and supporting objects that a person lives by, all based on a particular value system that is the foundation for its implementation (Hersika et al., 2020; Lund et al., 2019). Lifestyle also serves as a fundamental motivation that influences an individual's attitudes and needs, ultimately determining their purchasing patterns and activities (Ambrasat et al., 2016). The dynamic nature of the lifestyle suggests that it continues to evolve over time, influenced by various factors, including the social environment, socialising, and stress, which can negatively impact the performance of educational personnel (Chen & Wang, 2022; Clarke, 2021; Aseervatham et al., 2013). The social environment plays a crucial role in shaping lifestyle, as factors such as environmental conditions, nature, and economic circumstances can significantly influence the development of individuals (Dieterich et al., 2014). Research by Bosch et al. (2019) confirms that the social environment has a significant impact on changes in a person's lifestyle, which can be both positive and negative, so it is essential for individuals, especially adolescents, to choose an appropriate lifestyle based on the influence of their environment (Bielecka & Markiewicz-żukowska, 2020; Stemeseder et al., 2017). An unconducive social environment can affect the development of a person's soul and personality, which ultimately impacts the performance of the educational personnel themselves.

In addition to environmental factors, lifestyle is also greatly influenced by financial literacy and the social environment (Wati & Ridlo, 2020). Financial literacy, as defined

by the Financial Services Authority, encompasses the knowledge, beliefs, and skills that influence a person's attitudes and behaviours in decision-making and financial management, ultimately contributing to their well-being (Angelopoulou et al., 2021). The social environment is a setting where behaviours and habits formed through social interactions around individuals develop (Keith et al., 2021). Financial literacy is highly beneficial in regulating spending patterns and making informed financial decisions (Bielecka & Markiewicz-Żukowska, 2020). With good financial literacy, a person can avoid extravagant behaviours that often impact their lifestyle (Han et al., 2018; Smith et al., 2016; Syahputra, 2021; Tchetina et al., 2023).

Based on this description, this study aims to determine the influence of stress level and lifestyle on the performance of education staff at Yogyakarta State University (UNY), thereby providing a clearer picture of the relationship between the three variables.

Method

This study employs a quantitative approach, specifically correlational research (Fırat & Köksal, 2017), aiming to investigate the influence of stress level and lifestyle on the performance of education staff at Yogyakarta State University. Correlation research is used to examine the relationship between two or more variables. The method employed is a survey, utilising a data collection technique through questionnaires, which aims to obtain facts systematically and factually. This research will be conducted at Yogyakarta State University from October to December 2023, with a population of 588 education personnel distributed across various institutional units. Sampling was conducted using the proportional random sampling method, with the Harry King Nomogram employed to determine the sample size, which consisted of 175 people.

In this study, there are two main variables: the independent variable (X), which includes the level of stress and lifestyle, and the dependent variable (Y), which includes the performance of UNY education staff. The research instrument is a closed questionnaire with a Likert scale designed to measure the three variables. Each variable is broken down into several indicators, which are then developed into specific question items based on previous theories and research. The instrument was tested for validity using the Pearson Product-Moment correlation and its reliability with Cronbach's Alpha, which showed good consistency and reliability for data collection.

The sampling technique employed in the study is essential for ensuring the representativeness and generalisability of the findings, alongside the utilisation of the Likert scale and statistical tests. The proportional random sampling method facilitated a balanced representation of educational personnel across diverse departments and administrative units at UNY. This is crucial as it guarantees that the data gathered represents the varied experiences and viewpoints of the university's educational personnel, thus enhancing the external validity of the research. The utilisation of the Harry King Nomogram for sample size determination enhances methodological rigour by guaranteeing that the sample size is statistically sufficient for deriving significant conclusions.

The research design recognises potential confounding variables and aims to control for them by concentrating specifically on the relationship among stress, lifestyle, and performance. Although stress and lifestyle are the main variables of interest, the study acknowledges that additional factors, including work environment, support systems, and personal circumstances, may also affect staff performance. The study mitigates bias and enhances result accuracy by gathering data from diverse institutional units and assessing the validity and reliability of the instruments. These methodological steps guarantee that the research offers a clear and objective representation of the effects of stress and lifestyle on the performance of educational staff, and the results will be essential for formulating targeted interventions at UNY.

Results and Discussion

The results of the descriptive analysis are then categorised into three groups of values for each variable, as shown in Table 1.

Table 1. Results of Descriptive Analysis of Research Variables

Descriptive Statistics						
	N	*Min*	*Max*	*Sum*	*Mean*	*Std. Deviation*
Tingkat Stres	175	69	105	13419	88.28	6.817
Gaya Hidup	175	61	90	11531	75.86	6.175
Kinerja Tenaga Kependidikan	175	54	90	11198	73.67	7.442

Variable data on the stress levels of education personnel were obtained through a questionnaire containing 13 questions, administered to 175 respondents on a scale of 1–4. The results of data processing showed an average value of 88.28 with a standard deviation of 6.817, a minimum value of 69, and a maximum of 105. With the calculation of frequency distribution, the majority of respondents were in the 89–92 score intervalat, of 25%, while the least were in the 69–72 interval, was 1.3%. The categorisation of stress levels based on Mean Ideal (Mi) values of 87 and Ideal Standard Deviation (SDi) 6 resulted in three categories: good (≥93), fair (81–92), and poor (<81). A total of 27% of respondents fell into the good category, 63% into the adequate category, and 10% into the poor category.

The results show that most of the education staff at Yogyakarta State University have "adequate" levels of stress, with 63% of respondents scoring between 81 and 92. This means that most of the people who answered the survey are moderately stressed, but the stress doesn't have a big effect on their health or work performance. However, the fact that 10% of respondents are in the "poor" category suggests that some workers may be under considerable stress, which could negatively impact their health and productivity.

The data also show that about 27% of respondents are feeling low levels of stress, which could be because they have good ways to deal with stress or work in a supportive environment. These findings highlight the importance of continuing to provide support systems, such as stress management workshops, counselling services, and improved working conditions, to help education workers manage stress effectively. Addressing the stressors identified in this study could help create a more balanced and productive academic environment, ultimately enhancing the quality of education in the long run.

Thus, the stress level of education personnel at Yogyakarta State University is categorised as sufficient.

Figure 1. Variable Tendency Chart X1

Source: Ms Excel data processing results, 2024.

Lifestyle data of education personnel was collected through a questionnaire with seven questions and a scale of 1–4, from 175 respondents. The results showed an average value of 75.86, a standard deviation of 6.175, a minimum value of 61, and a maximum of 90. The frequency distribution showed that the majority of respondents scored 73–75 (22.4%), while the least scored 61–63 and 64–66 (3.3% each). Based on the Ideal Mean (75.5) and Ideal Standard Deviation (4.8), the lifestyle categories are divided into good (≥80.3), adequate (70.7–<80.3), and poor (<70.7). A total of 22% of respondents fell into the 'good' category, 61% into the 'adequate' category, and 17% into the 'poor' category.

The analysis of the data further revealed that a considerable proportion of the education personnel exhibited a moderate lifestyle, as evidenced by the majority of their scores falling within the range of 70.7–<80.3. This suggests that, despite having a relatively satisfactory lifestyle, there is still room for improvement, particularly in areas related to healthy living, time management, and maintaining a healthy balance between work and personal life. There is a possibility that these findings are influenced by various factors, including the amount of work required, the amount of work completed, and access to health-related resources.

The fact that only 22% of respondents fell into the 'good' category indicates that it remains challenging to achieve a high lifestyle standard among those working in educational institutions. This demonstrates the importance of implementing targeted interventions, such as wellness programs, stress management workshops, and policies that encourage individuals to adopt healthier lifestyles. It is possible that these measures will help elevate the lifestyle scores of respondents, which will in turn contribute to an improved quality of life for faculty members, as well as an increase in both productivity and job satisfaction.

Thus, the lifestyle tendency of Yogyakarta State University's education staff falls into the sufficient category.

Figure 2. X2 Frequency Distribution Trend Chart

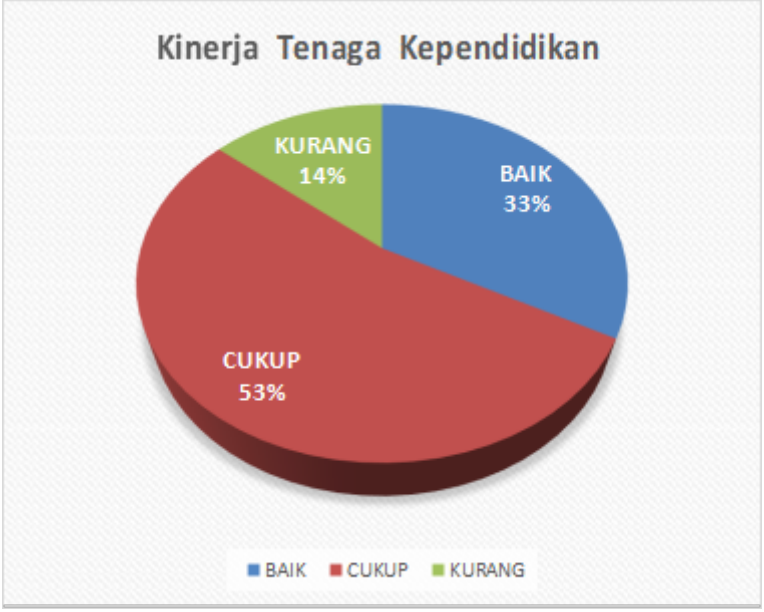
Source: Ms Excel data processing results, 2024.

The performance of education personnel was measured through a questionnaire administered to 175 respondents and analysed using SPSS. The average score was 73.67, with a low score of 54 and a high of 90. Once calculated, the data is grouped into nine interval classes. The majority of respondents fell within the score interval of 74–77, while the least were in the interval of 54–57. Based on the ideal category (good, adequate, or less), the results showed that 33% of respondents were in the good category, 53% were sufficient, and 14% were deficient.

The data analysis reveals that a substantial number of education staff members fall within the "sufficient" range (53% of respondents scored between 74 and 77), while a smaller proportion are in the "good" range (33%). This means that a group of people is doing well. This means that there are many teachers who meet or exceed performance standards, but there are also many who may need additional training to reach higher standards. The "deficient" group, which accounts for only 14% of the total, indicates a problem that requires targeted interventions, such as professional development programs or additional support systems, to help these individuals improve.

Additionally, the fact that scores range from 54 to 90 indicates that performance levels can vary based on factors such as the teacher's experience, workload, or access to resources. The fact that some people scored as low as 54 indicates that further work is needed to determine why some individuals are performing poorly and how to assist them. The fact that the overall performance is rated as "acceptable" means that the general level of performance is satisfactory, but there is still room for improvement across the board to ensure that all education staff meet or exceed the standards set by the institution.

Figure 3: Trend Diagram of Variable Frequency Distribution Y



Source: Ms Excel data processing results, 2024.

The results of the study show that work stress has an adverse effect on the performance of UNY education personnel, where the higher the stress level, the lower the performance produced. This stress is typically caused by the demands of heavy tasks, limited work time, and multiple tasks that increase physical and mental stress, ultimately leading to decreased performance (Mendes & Martino, 2020; Messie, 2018). Therefore, to overcome this problem, it is necessary to adjust the workload, time, and expertise that educational personnel have, so that stress can be minimised and their performance can improve.

The findings suggest a clear relationship between work stress and the performance of education personnel, reinforcing the idea that excessive stress negatively impacts job performance. This is consistent with previous research that highlights the detrimental effects of stress in workplace settings, particularly when employees are faced with overwhelming tasks, unrealistic deadlines, or insufficient support. For UNY education personnel, stress appears to be exacerbated by the heavy workload and tight schedules, which can lead to burnout, lower motivation, and decreased job satisfaction. These factors collectively hinder the ability to effectively perform duties and meet institutional goals, ultimately impacting the quality of education provided.

To address this issue, it is crucial to implement strategies that balance workload and provide sufficient support to educational personnel. Tailoring the workload to match the staff's skillset and capacity can help reduce stress and improve performance outcomes. This could involve restructuring job responsibilities, offering time management training, or providing additional resources to ease the burden. Furthermore, fostering a supportive work environment where personnel feel valued and empowered may enhance their resilience to stress, thereby improving their performance. By focusing on these factors, UNY can create a healthier and more productive work environment that benefits both the education staff and the institution as a whole.

Conclusion

The findings have revealed two key aspects of metacognitive abilities in writing a thesis that are essential for students to master. Being armed with metacognitive skills is one of the fundamental things students need to plan an appropriate writing framework, develop it, control what has been written, and evaluate parts of the writing that are not appropriate. After passing these stages, students can reflect on their learning methods in writing a quality thesis. Ultimately, students can develop effective strategies for learning to write independently. The conclusion is that students can formulate goals and steps for writing a thesis using metacognitive abilities. Apart from that, metacognitive abilities enable students to think critically in writing classes. Students can understand how they learn in writing classes and provide opportunities for students to be able to explore the writing they produce, enrich their insight by conducting interactive dialogue with lecturers related to the concept of knowledge and skills in writing, and solve problems independently, so that they can take appropriate action in complete writing assignments.

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Ethics Approval

There is no ethics approval needed.

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