Jurnal Rekayasa Sistem Industri
Volume 13 No 2 - Oktober 2024
http://journal.unpar.ac.id/index.php/jrsi/index
ISSN 2339-1499 (*online*) – ISSN 0216-1036 (*print*)

Disampaikan : 1 Maret 2024
Direview : 22 Mei 2024
Diterima : **5 Juni 2024**

The Influence of Job Stress Level on Study Concentration in Students Who Work While Studying (Case Study: Gunadarma University Postgraduate Students)

Shyntiya Ayu Lestari[1], Dian Kemala Putri[2]
[1,2)] Department Postgraduate of Industrial Engineering and Management, Gunadarma University
Jl.Margonda Raya, 100 Pondok Cina, Depok 16454, Indonesia
Email: shyntiyaayu22@gmail.com, dian@staff.gunadarma.ac.id

Abstract

The concentration of studies is critical to support students in understanding the theory and concepts during studying activities, so this needs to be noted so that students can achieve good study results. Working while studying will certainly cause serious problems in activities at work and on campus. Problems that often occur are piling up tasks, difficulty managing time, fatigue, disputes between colleagues and superiors, a toxic work environment, limited rest time, being expelled from the university, and experiencing delays in graduation. These can trigger job stress in students because they have to do two activities in their daily lives. This study aims to find out the effect of job stress levels on study concentration in working students. In addition, this study analyzes the factors that influence job stress and study concentration. The method used is quantitative analysis with a non-probability sampling technique and with a sampling technique. The test was conducted on 100 respondents with the characteristics of a Postgraduate student who worked while studying with an age range of 20->35 years. A job stress level measurement was carried out using the DASS-21 measuring instrument and a Guttman scale to measure the level of study concentration. The analysis of data carried out is the Chi-Square test and t-test. Based on the results show that students who work have a very high level of job stress which causes a decrease in study concentration in students. In addition, several factors influence job stress and study concentration, namely gender, age, type of work, and length of work duration. This research contributes to providing an overview and consideration to students about students who work while studying.

Keywords*: Job Stress, Study Concentration, Working while Studying, DASS-21 Method*

Abstrak

Konsentrasi belajar sangat penting untuk mendukung mahasiswa dalam memahami teori dan konsep selama kegiatan belajar, sehingga hal ini perlu diperhatikan agar mahasiswa dapat mencapai hasil belajar yang baik. Bekerja sambil belajar tentu akan menimbulkan masalah serius dalam aktivitas di tempat kerja maupun di kampus. Masalah yang sering terjadi adalah tugas yang menumpuk, kesulitan mengatur waktu, kelelahan, perselisihan antara rekan kerja dan atasan, lingkungan kerja yang toxic, waktu istirahat yang terbatas, dikeluarkan dari universitas, dan mengalami penundaan kelulusan. Hal-hal tersebut dapat memicu terjadinya stres kerja pada mahasiswa karena harus melakukan dua aktivitas dalam kesehariannya. Penelitian ini bertujuan untuk mengetahui pengaruh tingkat stres kerja terhadap konsentrasi belajar pada mahasiswa yang bekerja. Selain itu, penelitian ini menganalisis faktor-faktor yang mempengaruhi stres kerja dan konsentrasi belajar. Metode yang digunakan adalah analisis kuantitatif dengan teknik pengambilan sampel non probability sampling dan dengan teknik sampling. Pengujian dilakukan terhadap 100 responden dengan karakteristik mahasiswa Pascasarjana yang bekerja sambil kuliah dengan rentang usia 20->35 tahun. Pengukuran tingkat stres kerja dilakukan dengan menggunakan alat ukur DASS-21 dan penskalaan Guttman untuk mengukur tingkat konsentrasi belajar. Analisis data yang dilakukan adalah uji Chi-Square dan t-test. Berdasarkan hasil penelitian menunjukkan bahwa mahasiswa yang bekerja memiliki tingkat stres kerja yang sangat tinggi yang menyebabkan penurunan konsentrasi belajar pada mahasiswa. Selain itu, terdapat beberapa faktor yang mempengaruhi stres kerja dan konsentrasi belajar, yaitu jenis kelamin, usia, jenis pekerjaan, dan lama

DOI: https://doi.org/10.26593/jrsi.v13i2.7773.1-16

bekerja. Penelitian ini berkontribusi untuk memberikan gambaran dan pertimbangan kepada mahasiswa mengenai mahasiswa yang bekerja sambil kuliah.

Kata kunci: Stres Kerja, Konsentrasi Belajar, Bekerja sambil Belajar, Metode DASS-21

Introduction

The phenomenon of many students who decide to work while studying is caused by unstable financial factors (Abenoja et al., 2019), adding income, fulfilling life needs, high education costs, adding experience, adding relationships, and easing the burden on families (Chantrea et al., 2017). According to the Central Statistics Agency (BPS), there were 2.2 million students who chose to work while studying in Indonesia in 2019. Meanwhile, in 2020, the Central Statistics Agency (BPS) showed that 6.98% of Indonesian students aged 10-24 decided to work while studying. The difficult economic situation in Indonesia for some people also pushes students to find solutions to financial problems that can be completed by working. However, in some cases sometimes working while studying can be detrimental to students, so it affects academic activities.

The negative impacts that often occur in students who work while studying are difficulty managing time, difficulty completing assignments, lack of focus, fatigue, lack of rest time, and lack of time to study and do assignments it can result in decreased academic achievement and delayed graduation (Abenoja et al., 2019). Research by Rockman et al (2022), shows that working students find it very difficult to balance various tasks, prioritize tasks, and manage time effectively between working and studying. Working while studying is not an easy thing, students have to do two activities in their daily lives, both at work and on campus (Mesra et al., 2021). This creates conflicts or problems for students who work while studying because they have to complete tasks at the same time. The difficulty of working while studying ultimately leads to stress, lack of confidence, frustration, and loss of self-motivation. In addition, the academic demands that must be faced and the hard world of work that must be lived can certainly cause psychological disorders such as stress.

Job stress is one of the most influential aspects of student academic performance (Drăghici & Cazan, 2022). Job stress is a situation where a person is under pressure and can affect a person's emotions, physical condition, and way of thinking (Babazono, 2020). The stress also causes a decrease in student motivation which leads to a decline in academic achievement ability. When students are under pressure, they will easily experience excessive stress, thus affecting their health, dizziness, and difficulty sleeping.

According to Verulava & Jorbenadze (2022), students who work have a higher cumulative grade point average (GPA) compared to students who do not work. It is supported by the results of research by Purwanto et al (2013), which states that students who work have higher study results compared to the study results of students who do not work. However, according to Tus (2020), work while studying will cause stress that can disrupt the implementation of task completion, reduce performance, affect academic achievement, and affect student study activities. Another recent literature review highlighted how stress and burnout can also affect academic performance and improve the risk of dropping out (Verulava & Jorbenadze, 2022). Fernandha & Grasiaswaty (2021), also stated that working students often experience physical fatigue which impacts academic performance and affects their ability to concentrate while studying.

Students who work while studying must be able to manage their time, be responsible, and concentrate on the commitments of both activities. This means that students spend a lot of time, energy, and thought working and studying. This condition certainly makes their focus divided, resulting in decreased motivation to study. Study concentration is the focus of the mind on a particular object by reducing or excluding things that are not related to the object being studied. Focus is important to achieve one's goals in the study process. Students who can concentrate during their studying activities will have higher academic achievement compared to students who do not pay attention while studying (Pourbagher et al., 2021). Sari et al (2021), said that the low quality and achievement of student study is largely due

to the weak ability to concentrate while studying. A problem often experienced by students who work while studying is that their minds are divided when studying. This problem appears due to the many demands that must be done, limited time to work, thinking about protracted problems, limited rest time, and accumulated tasks.

Theories regarding the phenomenon of students who work while studying are quite often researched, including by (Abenoja et al., 2019; Verulava & Jorbenadze, 2022; Ab Fatah et al., 2021; Drăghici & Cazan, 2022; Fernandha & Grasiaswaty, 2021; and Saddique et al., 2023). In general, the purpose of the study was to investigate the reasons for students working while studying and to find out the effect of working while studying on academic performance (Abenoja et al., 2019; Verulava & Jorbenadze, 2022; Ab Fatah et al., 2021; Drăghici & Cazan, 2022; Fernandha & Grasiaswaty, 2021; and Saddique et al., 2023). Some other research objectives with students who work while studying include: 1) knowing the differences in study achievement between students who work and do not work (Purwanto et al., 2013), 2) explaining the problems of students who work while studying (Hanifah et al., 2018). Some of the analyses used in previous studies include analytic cross-sectional studies (Verulava & Jorbenadze, 2022; Saddique et al., 2023), the Snowball technique (Abenoja et al., 2019), quantitative methods in the form of a survey (Ab Fatah et al., 2021), cross-sectional design (Drăghici & Cazan, 2022), a questionnaire (Fernandha & Grasiaswaty, 2021), and observation and interviews (Purwanto et al., 2013).

Abenoja et al (2019), explained in their research that working while studying must have high commitment and discipline, and manage time properly and efficiently by deciding on time to study and time to work. The things that encourage students to work while studying are financial factors and self-development. Ab Fatah et al (2021), explained in her research that part-time working students experience burnout, and high anxiety due to difficulties adjusting to the work environment or academic environment, thus causing a significant increase in stress which can lead to burnout. In their research, Drăghici & Cazan (2022), explained that working while studying can cause fatigue, followed by stress. Fernandha & Grasiaswaty (2021), argues that students who work part-time experience stress, anxiety, and tension due to difficulties in managing time. Students who study while working have low grades due to limited time to study.

This study focuses on knowing how much influence the level of job stress felt by students who work while studying and knowing the level of study concentration of students who work while studying. This study also tries to investigate the correlations of other factors that dominantly affect the level of job stress and study concentration in working students. It is because job stress is a problem that often occurs in students who work while studying, where job stress can trigger the emergence of non-concentration in the studying process. Thus, it is hoped that a more comprehensive study can be obtained regarding the effect of working while studying on student study concentration. The results of the study are expected to help provide an overview of the conditions related to the problems or consequences that can occur in students who work while studying so that they can provide consideration to students who want to decide to work while studying. Become a reference for completion and reference to things that need to be considered regarding the consequences to expect when deciding to work while studying. The research methods and parameters used in this study are expected to be a reference and additional information for solving problems that occur in students who work while studying. The Depression Anxiety Stress Scales 21 (DASS-21) is a method used to measure the level of work stress in individuals subjectively and one of the effective measuring instruments to measure stress levels while measuring study concentration using Guttman scaling. The novelty of this research is to measure the level of job stress, the level of student study concentration, and the correlation of other factors that affect the level of job stress and student study concentration, where concentration is the most important factor in achieving success in studying. The scope of the study focused on Gunadarma University graduate students who were working at the same time.

Methods

The research uses quantitative analysis. The variables researchers use are Job Stress

DOI: https://doi.org/10.26593/jrsi.v13i2.7773.1-16

(Variable X) and Study Concentration (Variable Y). Job stress is measured using the DASS-21 method, while student study concentration is measured using Guttman scaling. The number of respondents used in this study was 100, and data collection in this study was non-probability with a purposive sampling technique. The criteria determined in this study are:

1. Active students in the Gunadarma University postgraduate program
2. Students who have worked for at least 1 month
3. The age of respondents is at least 20 years to > 35 years.

The demographic data of respondents needed in this study are gender, age, type of work, length of time working, and length of time rest. The purpose of the respondent's demographics is to describe something related to the individual condition of the respondent who is the research sample. Figure 1 is an illustration of the conceptual framework of this research.

Measurement of Job Stress (DASS-21)

Measurement of job stress in this study was carried out using the Depression Anxiety Stress Scale Questionnaire (DASS-21) method. DASS-21 is a measurement instrument developed by Lovibond & Lovibond (1995). The DASS-21 method is used to measure job stress experienced while performing job duties. The DASS-21 instrument consists of 21 items containing 3 sub-variables including physical, emotional or psychological, and behavioral (Henry & Crawford, 2005). The advantage of the DASS-21 measuring instrument is that it is easy to apply because it is subjective and is one of the most effective tools for measuring stress levels. The stress level on the DASS-21 instrument has 5 (five) classifications, namely: normal, light, moderate, heavy, and very heavy (Table 1). Alternative answers to the DASS-21 assessment method use a Likert scale, namely 0: Never, 1: Rarely, 2: Often, and 3: Very Often.

Table 1. DASS-21 score distribution

Level	Scale
Normal	0-7
Light	8-9
Moderate	10-12
Heavy	13-16
Very heavy	>17

Measurement of Study Concentration (Guttman Scaling)

The student study concentration measurement was measured using a Guttman scale in the form of a questionnaire (Setyani & Ismah, 2018). This questionnaire contains 23 question items/statements, where 18 question items are favorable and 5 items are unfavorable. Alternative answers and the rating scale used are in Table 2.

Table 2. Guttman rating scale

Scale	Favorable	Unfavorable
Yes	1	0
No	0	1

The classification of study concentration is done by calculating the total obtained from the scale score given using the following formula (Setyani & Ismah, 2018):

$$Scale = \frac{Total\ score\ obtained}{Total\ questions} \text{ x } 100\% \quad \text{Pers. 1}$$

After the score calculation is complete, the final results are grouped into four categories of study concentration levels which can be seen in Table 3.

Table 3. Study concentration category

Scale	Description
0-25	Very Low
26-50	Low
51-75	Moderate
76-100	High

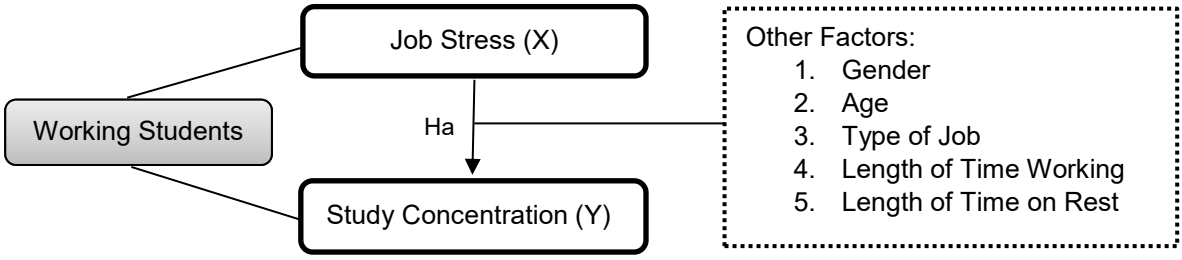

Figure 1. Conceptual model

DOI: https://doi.org/10.26593/jrsi.v13i2.7773.1-16

Instrument Test

The results of the data collection that has been carried out will be tested instrumentally to know that the instruments used in the study are appropriate. In this study, variables were measured using a questionnaire, where a good questionnaire must go through a data instrument test consisting of a validation test and a reliability test using the SPSS version 29 application.

A validity test is used to measure whether a questionnaire is valid or not. A questionnaire is said to be valid if the questions on the questionnaire can reveal something that will be measured by the questionnaire (Ghozali, 2011). According to Ghozali (2011), a reliability test is a tool for measuring and testing a questionnaire which is an indicator of a variable. A questionnaire is said to be reliable or reliable if someone's answer to a statement is consistent.

Normality Test

In this study, the normality test was carried out to see whether the data used were distributed normally or not. The data normality test uses the Kolmogrov-Smirnov test method. Data is said to be normal if the sig value> 0.05, otherwise if sig <0.05, then the data is not normally distributed.

Chi-square Test

The Chi-Square test is useful for testing the correlation between the influence of two nominal variables and measuring the strength of the correlation between one variable and another nominal variable (Negara & Prabowo, 2018). Negara & Prabowo (2018), also said that the Chi-Square Test is one type of non-parametric comparative test conducted on two variables with a nominal variable data scale.

The Chi-square test in this study is used to know whether there is a correlation between respondents' demographic data (gender, age, type of work, length of work, and length of rest time) with the research variables (job stress and study concentration). The basis for making the chi-square test decision is if the Asymp.sig value> 0.05, then it is said that there is no correlation between variable X and variable Y. Meanwhile if the Asymp.sig value <0.05, then it is said that there is a correlation between variable X and variable Y.

T-test (Partial)

According to Sugiyono (2018), the T-test is to know which independent variables have the most dominant effect on related variables. The t-test is a test of the regression coefficient of each independent variable on the dependent variable to determine how much influence the independent variable has on the dependent variable.

T-test in this study was used to test the research hypothesis about the effect of independent variables on the dependent variable. The confidence level in this study is 95% or α = 0.05. The decision-making of the t-test is if the sig value of the t-test > 0.05 then H_0 is accepted and Ha is rejected, which means there is no influence between the independent and the dependent variable. On the other hand, if the sig value of the t-test <0.05 where H_0 is rejected and Ha is accepted, it means an influence between the independent and dependent variables.

Hypothesis

Ha: There is an effect between Job Stress (X) on Study Concentration (Y)

H_0: There is no effect between Job Stress (X) on Study Concentration (Y)

Results and Discussion

Level of Job Stress in Students Who Work while Studying

The measurement of job stress levels in students who work while studying is divided into 5 (five) categories, namely, normal, light, moderate, heavy, and very heavy (Table 4).

Students who work while studying have a level of job stress in the very heavy category which is 79%, heavy job stress at 11%, moderate job stress at 3%, light job stress at 5%, and normal category job stress at 2% (Table 4). The high demands of work and demands on campus can result in increased work activities which when activities are increasingly dense, the demands will also be heavier which means less free time is owned. This can cause an imbalance between a person's mental resilience and workload. According to Arumdani & Churiyah (2022), Increased job stress is caused by work environment discomfort and high work intensity, this leads to increased workload and an imbalance between perceived external demands and internal capabilities. The

DOI: https://doi.org/10.26593/jrsi.v13i2.7773.1-16

pressure experienced by students while working is due to having two responsibilities at once, both in work and studies, piling up tasks, increasing pressure, tension, anxiety, or worry. Working students face many challenges, they have to balance work, school, extracurricular activities, and personal life. Job stress is caused by different situations, job tasks, organizations, work environments, and lack of communication (Săvescu et al., 2017). The percentage of the total score of DASS-21 indicators aims to find out which indicators are the biggest in influencing work stress in college students while working. The percentage of the highest level of job stress is found in the stress indicator of 831 with a percentage of 36%. The anxiety indicator is 748 with a percentage of 32%, while the depression indicator is 736 with a percentage of 32% (Table 5).

Table 4. Percentage of job stress levels in working students

Stress Level Category	Total Respondents	Percentage (%)
Normal	2	2%
Light	5	5%
Moderate	3	3%
Heavy	11	11%
Very Heavy	79	79%

Table 5. Percentage of total occupational stress indicator scores (DASS-21)

Indicator	Total Indicators	Percentage (%)
Depresi	736	32%
Anxiety	748	32%
Stress	831	36%
Total	2.315	100%

The Correlation between Gender and Job Stress

The results in Table 6 show that students who work while studying experience the highest job stress, namely female students at 60% when compared to male students at 40%. The analysis shows that gender affects the level of job stress in students who work while studying, where women have higher stress levels compared to men. This is because women are more likely to have dual roles. Women experience 50% more work-related stress than men, as female employees take on more responsibilities at work while still maintaining their responsibilities at home (Hijazi et al., 2022). In addition, according to Săvescu et al (2017), stress among female students is often different because they are more likely to feel emotional and use their feelings more. It is reported that female students feel more stress compared to male students because female students easily feel excessive anxiety (Săvescu et al., 2017).

The Correlation Between Age and Job Stress

Based on Table 7, shows that students who work while studying have the highest level of job stress in the age range 20-25 years with a percentage of job stress of 74%, while the lowest level of job stress in the age range 31-35 years with a percentage level of 3%.

In Table 7 it can be seen that there is a correlation between age and the level of incidence of job stress in students who work while studying. The difference in age in the quantity and quality of work-related stressors explains that on average someone older shows a higher level of job satisfaction than someone younger, this is because they are more able to show intellectual maturity, broad knowledge, and more experience so that they are better able to manage stress compared to someone younger (Hsu, 2019). This is because they have faced more difficult situations in their working life compared to younger workers because an older person shows mental maturity in the sense that they are wiser, more able to think rationally, can control emotions, and are more tolerant of differences in views and behavior

Table 6. The correlation between gender and job stress

Gender	Job Stress						
	Normal	Light	Moderate	Heavy	Very heavy	Total	*P*
Male	1%	5%	2%	5%	27%	40%	
Female	1%	0%	1%	6%	52%	60%	0.045
Total	2%	5%	3%	11%	79%	100%	

DOI: https://doi.org/10.26593/jrsi.v13i2.7773.1-16

Table 7. The correlation between age and job stress

Age	Job Stress						
	Normal	Light	Moderate	Heavy	Very heavy	Total	*P*
20-25 Years	1%	1%	1%	5%	66%	74%	
26-30 Years	0%	2%	1%	4%	9%	16%	
31-35 Years	1%	0%	0%	1%	1%	3%	<0.001
>35 Years	0%	2%	1%	1%	3%	7%	
Total	2%	5%	3%	11%	79%	100%	

(Hsu, 2019). Older workers rated the demands of the job as less stressful than younger workers (Sawang & Newton, 2018). This is due to a lack of self-confidence, and lack of life experience, so they tend to experience greater psychological pressure than their older counterparts. A person's age is very useful in specifying how a person manages disruptive stressors that cause the stress they will experience. Therefore, adults should be different from children in terms of controlling stress (Sawang & Newton, 2018).

The Correlation between Job Type and Job Stress

Table 8 shows that the type of job as an employee has the highest stress level at 77% and the lowest is in the type of job as a civil servant at 2%. This is because private employees have heavier workloads and greater time demands. This is supported by the results of research by (Kusuma et al., 2022) which states that workload affects job stress, which means that when workload increases, job stress also increases. Job stress that occurs in an employee can be caused by two factors, namely external factors and internal factors. External factors include work environment conditions and workload, while internal factors include individual characteristics, job satisfaction, and job insecurity (Smet, 1994). Based on Chantrea et al (2017), differences in individual stressors can occur in a profession in an organization. Each position in an organization has different pressures and demands from other positions in the same organization, which essentially can lead to a different type of job stress. The greater the perceived responsibility, the higher the likelihood of experiencing job stress. Some factors associated with high job stress include the higher the position, the greater the risk of experiencing job stress (Chantrea et al., 2017).

The analysis results show that the type of job does not affect job stress in students who work while studying (Table 8). This is because every job has demands and everyone interprets the pressure in the work environment differently (Fonkeng, 2017). Job stress occurs when external demands and situations do not meet the needs, expectations, or ideas that are more than their physical abilities, skills, and knowledge to handle the situation comfortably (Fonkeng, 2017). However, when a person has the motivation and desire to achieve a goal, then that person will enjoy every process. Job stress can also occur when the employee has negative feelings such as judging that what happens to him can harm him (Fonkeng, 2017). However, each individual has a different perspective and thinking in assessing something that is a source of stress, if the individual has a good perspective and thinking then it will not lead to job stress (Rizkiyani & Saragih, 2012)

Table 8. The correlation between job type and job stress

Job Type	Job Stress						
	Normal	Light	Moderate	Heavy	Very heavy	Total	*P*
Employee	1%	3%	3%	9%	61%	77%	
Self-employed	1%	1%	0%	0%	10%	12%	
Civil servant	0%	0%	0%	1%	1%	2%	0.677
Other	0%	1%	0%	1%	7%	9%	
Total	2%	5%	3%	11%	79%	100%	

DOI: https://doi.org/10.26593/jrsi.v13i2.7773.1-16

The Correlation between Length of Working Time and Job Stress

The analysis shows that there is a correlation between the length of working hours and the prevalence of job stress in students who work while studying. The highest level of job stress is found in the length of work for 8 hours at 52%, while the lowest is found in the length of work > 7 hours at 12% (Table 9). The long working hours not only cause loss of rest but also cause serious health problems. Working long hours is known to have negative health effects, such as hypertension, occupational stress, and depression. Therefore, long working hours are an important factor affecting physical and mental health. Some research shows that long working hours increase the risk of job stress (Hong et al., 2022), where the longer the time at work, the higher the risk that a person will experience stress. The longer working hours directly increase the work demands of employees and affect the time to rest. Wong et al (2019), found that working more than 61 hours per week is more likely to cause job stress.

The Correlation between Length of Rest Time and Job Stress

The highest job stress was found in rest periods <6 hours and 7-8 hours, with percentages of 34% and 41%, while the lowest was found in rest periods of 8-9 hours and >9 hours (Table 10). This is when someone has little rest time, it will result in physical fatigue and sleep hours will be disrupted. A lack of sleep supported by excessive workload can cause stress. A person who works long hours certainly does not have enough rest time, causing fatigue. According to Li et al (2019), a long working day can shorten rest time so there is no time to relax, sleep time is limited, and will have an impact on health and cause stress.

Analysis results show that there is no correlation between the length of rest time and the prevalence of job stress in students who work while studying. This is related to the way of self-adjustment and good time management process in each individual. Someone who can adjust and allocate time appropriately will avoid the possibility of job stress. Someone who can manage and utilize time effectively and efficiently and can implement good time management at work will avoid the risk of excessive job stress. Based on Wardani & Amaliyah (2022), explain that time management is a decision-making process that protects, structures, and adjusts one's time to change environmental conditions. The existence of time management can provide the possibility for each individual to complete more work in a shorter period so that they can rest sufficiently. Hakro et al (2021), stated that adequate rest time can reduce fatigue, human error, and drowsiness, which has a positive impact on physical health. Quality sleep can reduce stress maintain mental and emotional balance, and improve work capacity and concentration (Hakro et al., 2021).

Table 9. The correlation between length of time working and job stress

Length of Working Time	Job Stress						
	Normal	Light	Moderate	Heavy	Very heavy	Total	*P*
<7 Hours	2%	1%	0%	0%	17%	20%	
7 Hours	0%	0%	1%	0%	11%	12%	
8 Hours	0%	4%	0%	7%	41%	52%	0.011
>8 Hours	0%	0%	2%	4%	10%	16%	
Total	2%	5%	3%	11%	79%	100%	

Table 10. The correlation between length of rest time and job stress

Length of Break Time	Job Stress						
	Normal	Light	Moderate	Heavy	Very heavy	Total	*P*
<6 Hours	1%	2%	3%	4%	28%	34%	
7-8 Hours	0%	1%	0%	5%	35%	41%	
8-9 Hours	0%	1%	0%	0%	7%	8%	0.492
>9 Hours	1%	1%	0%	2%	9%	13%	
Total	2%	5%	3%	11%	79%	100%	

DOI: https://doi.org/10.26593/jrsi.v13i2.7773.1-16

Level of Study Concentration in Working Students

The level of study concentration is divided into three categories, namely low, moderate, and high. Based on Table 11, shows that the level of study concentration in students who work while studying with a high category is 55%, a moderate category is 39% and a low category of study concentration is 6%. This is because of the high motivation of each student to achieve goals and ideals both on campus and at work. Studying activities carried out by students are said to be successful if they are motivated by a desire from within, which is often referred to as motivation. However, according to Hanifah et al (2018), one aspect that supports academic achievement is the level of concentration in studying. Concentration is needed in the process of teaching and studying activities to focus attention on a particular object. The decline in student study concentration causes several disadvantages, such as decreased studying achievement. High or low study concentration is influenced by students' ability to focus their attention during the study process and enthusiasm for studying. This is by research by Attika Robbi et al (2020), which revealed that concentration is influenced by internal and external factors such as motivation and environment. Motivation is something that makes people move, giving rise to behavior to take action to achieve the expected goals (Attika Robbi et al., 2020).

Table 11. Percentage of study concentration categories in working students

Category Study Concentration	Total Respondents	Percentage (%)
Low	6	6%
Moderate	39	39%
High	55	55%
Total	100	100%

The Correlation between Gender and Study Concentration

The study concentration is divided into 3 (three) categories, namely low, medium, and high. It can be seen that the highest study concentration of working students is found in female students with a percentage of 60%, while the lowest is found in male students at 40% (Table 12). The analysis results show that there is no correlation between gender and study concentration in students who work while studying. This is because of the desire of each individual to achieve the desired goal. In addition, the success or failure of the study depends on the student's study process. Moh Ghoizi Eriyanto et al (2021), everyone has a different view of studying. A student who studies while working certainly has the motivation to achieve goals both on campus and at work. Increased study motivation makes a person more focused or concentrated on studying. It is argued by Islam et al (2018), that studying focus is one of the factors that can differentiate students who maximize their studying potential from students who do not focus on studying. Motivation to study is an absolute requirement in studying and plays an important role in generating passion or enthusiasm for studying. The motivation to study is not only the push to achieve good results but also includes the effort to achieve study goals (Moh Ghoizi Eriyanto et al., 2021).

Table 12. The correlation between gender and study concentration

Gender	Study Concentration				
	Low	Moderate	High	Total	*P*
Male	3%	13%	24%	40%	
Female	3%	26%	31%	60%	0.529
Total	6%	39%	55%	100%	

The Correlation between Age and Study Concentration

Study concentration is highest in students who work while studying in the age range of 20-25 years and 26-30 years with a percentage of 74% and 16%, while the lowest concentration of study is in the age range of 31-35 years and >35 years with a percentage of 3% and 7% (Table 13). Results of the analysis show that there is a correlation between age and study concentration in students who work while studying. This is due to the growing age of a person, so the ability to concentrate will be affected due to decreased memory. Smith & Robinson (2024), stated that the older the age, the higher the risk of difficulty remembering and concentrating, which means the greater the possibility of decreased cognitive function. Growing age is a major risk factor for declining cognitive function (Smith & Robinson, 2024). According to Pomarida & Nagoklan (2022), concentration can be defined as a mental state in which all human feelings and thoughts are focused on a particular subject. If a person

DOI: https://doi.org/10.26593/jrsi.v13i2.7773.1-16

maintains good concentration, any knowledge or information provided can be received well.

Table 13. The correlation between age and study concentration

Age	Study Concentration				
	Low	Moderate	High	Total	*P*
20-25 Years	5%	36%	33%	74%	
26-30 Years	1%	2%	13%	16%	
31-35 Years	0%	0%	3%	3%	0.038
>35 Years	0%	1%	6%	7%	
Total	6%	39%	55%	100%	

The Correlation between Job Type and Study Concentration

The majority of the 100 student respondents who work while studying have the highest study concentration in the type of work as an employee with a percentage of 77%, while the lowest study concentration in the type of work as a civil servant at 2% (Table 14).

Table 14 shows that there is a correlation between the type of job and study concentration in students who work while studying. This is because each type of work has its demands. The higher the position, the higher the demands, the more tasks that must be done, the less time to rest and the body will easily feel tired. Fatigue in general greatly affects a person's ability to study, physically healthy people will be different from people who are in a state of fatigue. Novianti et al (2023), state that the factors that affect a person's concentration are fatigue, environment, loss of strong will to study, emotions, less healthy physical condition, lack of rest and sleep, unrealistic studying goals, and personal problems. The higher the level of concentration, the better the ability to focus on study

Table 14. The correlation between job type and study concentration

Job Type	Study Concentration				
	Low	Moderate	High	Total	*P*
Employee	3%	31%	43%	77%	
Self-employed	0%	5%	7%	12%	
Civil servant	0%	0%	2%	2%	0.020
Other	3%	3%	3%	9%	
Total	6%	39%	55%	100%	

The Correlation between Working Time and Study Concentration

The students who work while studying have the highest study concentration in the working time range of 8 hours at 52%, while the lowest is in the working time range of 7 hours at 12% (Tabel 15). Based on the results of analyses that have been carried out, show that there is no correlation between length of work and study concentration in students who work while studying. This is because students who work can adapt and be able to adjust to the tasks and demands at work and on campus so that they can concentrate during studying activities. Seven (2019), argues that motivation is one of the important factors in studying. Effective studying will not happen if students' motivation is reduced in the study process. Therefore, lecturers can motivate students to focus on studying and ultimately have better concentration (Seven, 2019).

Table 15. The correlation between length of time working and study concentration

Length of Working Time	Study Concentration				
	Low	Moderate	High	Total	*P*
<7 Hours	2%	5%	13%	20%	
7 Hours	0%	7%	5%	12%	
8 Hours	3%	21%	28%	52%	0.647
>8 Hours	1%	6%	9%	16%	
Total	6%	39%	55%	100%	

The Correlation between The Length of Rest Time and Study Concentration

The highest study concentration in working students is in the range of rest time for <6 hours and 7-8 hours, namely 38% and 41%, while the lowest study concentration is in the range of rest time for 8-9 hours and >9 hours, namely 8% and 13% (Table 16). Based on Table 16 shows that there is no correlation between the length of time to rest with study concentration in students who work while studying. When a student can divide the time between work and rest, it will not affect his ability to concentrate while studying and working, but otherwise, if someone lacks rest, it will affect his ability to concentrate because of sleepiness and fatigue. This is by Novianti et al (2023), who showed that someone who experiences poor sleep quality or rest time will find it difficult to concentrate. A person who experiences sleep disturbances will interfere with the studying process and have

DOI: https://doi.org/10.26593/jrsi.v13i2.7773.1-16

difficulty receiving lessons given by lecturers, lower brain ability, fatigue, drowsiness, weakness, emotional sensitivity, weakened ability to concentrate, and decreased academic achievement (Paramasatiari & Lestari, 2020).

Table 16. The correlation between length of rest time and study concentration

Length of Break Time	Study Concentration				
	Low	Moderate	High	Total	*P*
<6 Hours	1%	14%	23%	38%	
7-8 Hours	4%	17%	20%	41%	
8-9 Hours	0%	4%	4%	8%	0.751
>9 Hours	1%	4%	8%	13%	
Total	6%	39%	55%	100%	

Validation Test

The validity test results that have been carried out show that all question items from each research indicator obtain a correlation value of r count ≥ r table. The validation test of the job stress instrument is 0.600 and the study concentration instrument is 0.386, so the questions used by these variables are declared valid (Table 17).

Reliability Test

The reliability of a questionnaire can be seen from the Cronbach alpha (α) value. The test results show that the job stress variable is 0.911, and the study concentration variable is 0.737 which shows that each of these variables has a Cronbach's alpha value above 0.06 so it can be said that the questionnaire used in this study is reliable (Table 18).

Normality Test

The results of the normality test using One-Sample Kolmogorov-Smirnov show a significant probability value (Asymp. Sig) of 0.111 which means that the value is> 0.05, it can be concluded that the data used by researchers is normally distributed (Table 19).

T-test (Partial)

The t-test results show that the significant value for the effect of Job Stress (X) on Study Concentration (Y) is > 0.001 which means < 0.05 and the calculated t-value obtained is -3.059 > 1.984, so it can be concluded that H_0 is rejected and Ha is accepted, which means there is an effect between Job Stress (X) on Study Concentration (Y) (Table 20).

Table 17. Validation test results

Variables	Total Question Item	r count	r table	Description
Job Stress	21 Item	0,600	0.196	Valid
Study Concentration	23 Item	0.386	0.196	Valid

Table 18. Reliability test results

Variable	Cornbach's Alpha (0,60)	Description
Job Stress	0.911	Reliable
Study Concentration	0.737	Reliable

Table 19. Normality test results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		100
Normal Parameters[a,b]	Mean	,0000000
	Std. Deviation	14,62358466
Most Extreme Differences	Absolute	,080
	Positive	,046
	Negative	-,080
Test Statistic		,080
Asymp. Sig. (2-tailed)		,111[c]
a. Test distribution is Normal.		

DOI: https://doi.org/10.26593/jrsi.v13i2.7773.1-16

Table 20. Results of t-test

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	100,902	8,408		12,001	>,001
	Job Stress	-8,131	2,658	-,295	-3,059	,003
a. Dependent Variable: Study Concentration						

The results of the hypotheses that have been carried out show that job stress affects study concentration in students who work while studying. This is because working students have many demands, so it is difficult to manage time, often experience fatigue, difficulty balancing social, family, college, and work life, difficulty completing their studies, lack of study time, decreased academic achievement, and delayed graduation (Abenoja et al., 2019). Saddique (2023), argues that working students are more prone to stress because study time often clashes with work time. From the various problems and conflicts faced, students who work while studying are prone to stress because of the many demands they receive, so this can reduce their concentration levels and interfere with their academic performance.

Job stress has a major impact on a person's performance and productivity. According to Vijayan (2018), job stress results from a mismatch between individual abilities and job demands. Stress is one of the most influential aspects of students' academic performance (Drăghici & Cazan, 2022). Job stress also causes a decline in study motivation which leads to a decrease in the ability to concentrate on studying. When someone cannot sustain their concentration well, the knowledge or information given to them will not be well received. Based on the results of research by Kurniawan et al (2018), state that job stress can potentially encourage or interfere with the implementation of work, but this depends on how much stress the person is experiencing. However, if the stress is still at a normal level, it does not interfere with activities, but on the other hand, if the stress has reached its peak, it will reduce one's performance. Le (2021), argues that students can concentrate well when they can focus their attention during study activities, can easily answer questions related to the study material, listen to the teacher's explanation, take notes on important material, listen to friends' opinions, answer teacher questions, and be relaxed in class. Other things that can be done to improve concentration are to control something that can interfere, stay calm, focus on the goals to be achieved, focus on the mind, avoid negative things, get enough rest, and pause to study.

In addition, this study found several factors that influence the level of job stress and study concentration of students who work while studying. One of the factors affecting job stress is gender, age, and length of work, while other factors affecting students' study concentration are age and type of work. Working while studying is not easy, because it has two responsibilities in daily life. This will certainly cause stress and will affect study concentration. Things that need to be considered by students who work while studying to minimize the occurrence of job stress are setting work limits, setting aside time for hobbies, using time efficiently, avoiding bad thoughts, creating a comfortable work environment, support from parents, and choosing a job that suits their interests and flexibility (example: freelance writer, private teacher, reseller, data entry, video editor).

Conclusion

The results of this study showed that job stress has an influence on study concentration in students who work while studying. However, the level of study concentration is not only influenced by job stress but there are several other factors such as gender, age, and job type. In addition, other factors affect the level of job stress and study concentration such as gender, age, job type, length of work time, and length of rest time as well as internal and external factors from individuals. Students who decide to work while studying should consider the type of job to be taken and choose a job with flexible time, so as not to burden and minimize the risk of job stress (freelance writer, private teacher, reseller, data entry, video editor).

For future research, it is recommended to continue this research by adding other variables such as study motivation, internal factors, and external factors that affect study concentration as well as strategies that must be done to perfect this research

Acknowledgments

The authors are grateful to Gunadarma University for the scholarship fund that was provided in pursuing this postgraduate program and to all the respondents who participated in this research.

References

Ab Fatah, N. S., Ramli, N. A., Daruis, D. D. I., Deris, F. D., Noor, N. A. M., & Baharum, A. (2021). Correlation assessment between working and academic performance. *International Journal of Nonlinear Analysis and Applications*, *12*(Special Issue), 1103–1115.https://doi.org/10.22075/IJNAA.2021.5572

Abenoja, R., Accion, N., Aguilar, J., Alcasid, M., Amoguis, A., Buraquit, D., Mama, A., Pacete, J., & Pame, J. (2019). The Experiences of Working While Studying: A Phenomenological Study of Senior High School Students. *Paper Knowledge. Toward a Media History of Documents*, *1*(1), 204–219.

Arumdani, K., & Churiyah, M. (2022). Job Stress, Work-Life Balance, and Workplace Wellbeing : A Bibliometric Analysis. *Jurnal Syntax Transformation*, *3*(05), 631–642. https://doi.org/10.46799/jst.v3i5.554

Attika Robbi, A., Gusnardi, G., & Sumarno, S. (2020). Analysis of the Effect of Learning Motivation on Learning Achievement. *Journal of Educational Sciences*, *4*(1), 106-115. https://doi.org/10.31258/jes.4.1.p.106-115

Babazono, A. (2020). The effect of subjective stress on mental health. *International Journal of Management Studies and Social Studies*, *40*(Special), 153. https://doi.org/10.1539/sangyoeisei.kj00001989982

Chantrea, B., Chansophy, H., & Chantyta, H. (2017). Working and studying at the same time. *UC Working Paper Series*, *1*(1), 21–42. https://uc.edu.kh/userfiles/image/2018/Working Paper Series Volume 1 Issue 1 (2).pdf

Drăghici, G. L., & Cazan, A. M. (2022). Burnout and Maladjustment Among Employed Students. *Frontiers in Psychology*, *13*(April), 1–10. https://doi.org/10.3389/fpsyg.2022.825588

Fernandha, A., & Grasiaswaty, N. (2021). Role Conflict and Well-Being Among Working Students: The Viewpoint of a Full-Timer. *Jurnal Educative: Journal of Educational Studies*, *6*(2), 191. https://doi.org/10.30983/educative.v6i2.4713

Ghozali, I. (2011). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 19 (edisikelima)*. Semarang: Badan Penerbit Universitas Diponegoro

Hakro, S., Jameel, A., Hussain, A., Aslam, M. S., Khan, W. A., Sadiq, S., & Nisar, A. (2021). A Lunch Break Time and Its Impact on Employees Health, Performance and Stress on Work. *Journal of Pharmaceutical Research International*, *33*, 84–97. https://doi.org/10.9734/jpri/2021/v33i38b32102

Hanifah, A., Widianti, E., & Yudianto, K. (2018). Learning Concentration Level of Students at Faculty of Nursing Universitas Padjadjaran (An Overview of The Z Generation). *Journal of Nursing Care*, *1*(3). https://doi.org/10.24198/jnc.v1i3.18456

Henry, J.D., & Crawford, J.R. (2005). The short-form version of the Depression Anxiety Stress Scales (DASS-21): construct validity and normative data in a large non-clinical sample. *The British journal of clinical psychology, 44* Pt 2, 227-239 .

Hijazi, H., Baniissa, W., Abdi, R. Al, Al-Yateem, N., Almarzouqi, A., Rahman, S., Alshammari, R., & Alameddine, M. (2022). Experiences of Work-Related Stress Among Female Healthcare Workers During the COVID-19 Public Health Emergency: A Qualitative Study in the United Arab Emirates. *Psychology Research and Behavior Management*, *15*(September), 2701–2715. https://doi.org/10.2147/PRBM.S381177

Hong, Y., Zhang, Y., Xue, P., Fang, X., Zhou, L., Wei, F., Lou, X., & Zou, H. (2022). The Influence of Long Working Hours, Occupational Stress, and Well-Being on Depression Among Couriers in Zhejiang, China. *Frontiers in Psychology*, *13*(June). https://doi.org/10.3389/fpsyg.2022.928928

Hsu, H. C. (2019). Age differences in work stress, exhaustion, well-being, and related factors from an ecological perspective. *International Journal of Environmental Research and Public Health*, *16*(1). https://doi.org/10.3390/ijerph16010050

Islam, S., Baharun, H., Muali, C., Ghufron, M. I., Bali, M. E. I., Wijaya, M., & Marzuki, I. (2018). To Boost Students' Motivation and Achievement through Blended Learning. *Journal of Physics: Conference Series*, *1114*(1). https://doi.org/10.1088/1742-6596/1114/1/012046

Kusuma, M. S. R., Anwar Ramli, & Akbar, A. (2022). Pengaruh Beban Kerja Terhadap Stres Kerja dan Kinerja Karyawan PT. Putra Mahalona. *Jurnal Bisnis Kolega*, *8*(2), 58–67. https://doi.org/10.57249/jbk.v8i2.82

Le, H. V. (2021). An Investigation into Factors Affecting Concentration of University Students. *Journal of English Language Teaching and Applied Linguistics*, *3*(6), 10–15. https://doi.org/10.32996/jeltal

Li, Z., Dai, J., Wu, N., Jia, Y., Gao, J., & Fu, H. (2019). Effect of long working hours on depression and mental well-being among employees in Shanghai: The role of having leisure hobbies. *International Journal of Environmental Research and Public Health*, *16*(24). https://doi.org/10.3390/ijerph16244980

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy*, 33(3), 335-343. https://doi.org/10.1016/0005-7967(94)00075-U

Mesra, R., Hasrin, A., Fathimah, S., Rahman, R., & Sidik, S. P. (2021). The Phenomenon of Student Life Who is Studying While Working in the City of Padang. *Proceedings of the International Joined Conference on Social Science (ICSS 2021)*, *Advances in Social Science, Education and Humanities Research, 603,* 319–325.

Eriyanto, M. G., Roesminingsih, M. V., Soedjarwo, & Soeherman, I. K. (2021). The Effect of Learning Motivation on Learning Independence and Learning Outcomes of Students in the Package C Equivalence Program. *IJORER : International Journal of Recent Educational Research*, *2*(4), 455–467. https://doi.org/10.46245/ijorer.v2i4.122

Negara, I. C., & Prabowo, A. (2018). Penggunaan Uji Chi–Square untuk Mengetahui Pengaruh Tingkat Pendidikan dan Umur terhadap Pengetahuan Penasun Mengenai HIV–AIDS di Provinsi DKI Jakarta. *Prosiding Seminar Nasional Matematika Dan Terapannya 2018*, *1*(1), 1–8.

Novianti, S. W., Andriyani, M., & Hastuti, D. (2023). The Relationship between The Quality of Sleep and Learning Concentration among School-Age Children. *Journal of Nursing Care*, *5*(3), 125–132. https://doi.org/10.24198/jnc.v5i3.33360

Paramasatiari, A., & Lestari, L. A. P. (2020). The Correlation between Sleep Duration with Concentration Level on Elementary School Students in Denpasar. *The Proceedings of the 1st Seminar The Emerging of Novel Corona Virus, nCov 2020*. https://doi.org/10.4108/eai.11-2-2020.2302049

Pomarida, S., & Nagoklan, S. (2022). Learning environment with the learning concentration on students. *Science and Education*, *1*, 109–115.

Pourbagher, S., Azemati, H. R., & Saleh Sedgh Pour, B. (2021). Classroom wall color: a multiple variance analysis on social stress and concentration in learning environments. *International Journal of Educational Management*, *35*(1), 189–200. https://doi.org/10.1108/IJEM-06-2020-0282

Purwanto, H., Syah, N., & Rani, I. G. (2013). Perbedaan Hasil Belajar Mahasiswa Yang Bekerja Dengan Tidak Bekerja Program Studi Pendidikan Teknik Bangunan Jurusan Teknik Sipil Ft-Unp. *Journal of Civil Engineering and Vocational Education (CIVED)*, *1*(1), 34–42.

Rockman, D. A., Aderibigbe, J. K., Allen-Ile, C. O., Mahembe, B., & Hamman-Fisher, D. A. (2022). Working-class postgraduates' perceptions of studying while working at a selected university. *SA Journal of Human Resource Management*, *20*(November), 0–14.https://doi.org/10.4102/sajhrm.v20i0.1962

Saddique, F., Khurshid, F., & Raja, B. I. (2023). The Effect of Part-Time Jobs on University Students' Academic Achievement. *Journal*

of Educational Research & Social Sciences Review (JERSSR), *3*(1), 111–122.

Sari, U. A., Fauziyah, N., Ghozi, A., Azizah, I. N., & Al-Fidyah, U. F. (2021). Improving the Students' Learning Concentration Through Ice Breaking. *Proceedings of the International Conference on Engineering, Technology and Social Science (ICONETOS 2020)*, *529*(Iconetos 2020), 614–619. https://doi.org/10.2991/assehr.k.210421.089

Săvescu, R., Stoe, A. M., & Rotaru, M. (2017). Stress among working college students Case Study: Faculty of Engineering Sibiu, Romania. *Balkan Region Conference on Engineering and Business Education*, *3*(1), 399–404. https://doi.org/10.1515/cplbu-2017-0052

Sawang, S., & Newton, C. J. (2018). Defining Work Stress in Young People. *Journal of Employment Counseling*, *55*(2), 72–83. https://doi.org/10.1002/joec.12076

Setyani, M. R., & Ismah. (2018). Analisis Tingkat Konsentrasi Belajar Siswa Dalam Proses Pembelajaran Matematika Ditinjau Dari Hasil Belajar. *Pendidikan Matematika*, *01*, 73–84.

Seven, M. A. (2019). Innovation in Language Learning and Teaching. *Innovation in Language Learning and Teaching*, *8*(8), 62–71. https://doi.org/10.1007/978-3-030-13413-6

Smith, B. M., & Robinson, L. (2024). *Age-Related Memory Loss*. *November 2018*, 1–7.

Sugiyono, (2018). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D*. Bandung; Alfabeta.

Tus, J. (2020). Academic Stress, Academic Motivation, and Its Relationship on the Academic Performance of the Senior High School Students. *Asian Journal of Multidisciplinary Studies*, *8*(11), 2348–7186. https://doi.org/10.6084/m9.figshare.13174952.v1

Verulava, T., & Jorbenadze, R. (2022). The impact of part-time employment on students' health: A Georgian Case. *Malta Medical Journal*, *34*(1), 50–57.

Vijayan, M. (2018). Introduction impact of job stress on employees' job performance in Aavin, Coimbatore. *Journal of Organisation & Human Behaviour*, *6*(3), 21–29.

Wardani, N. T., & Amaliyah, A. (2022). Time Management Effectiveness Toward Employee Stress Level During Pandemic Covid-19. *Bulletin of Counseling and Psychotherapy*, *4*(3), 635–644. https://doi.org/10.51214/bocp.v4i3.361

Wong, K., Chan, A. H. S., & Ngan, S. C. (2019). The effect of long working hours and overtime on occupational health: A meta-analysis of evidence from 1998 to 2018. *International Journal of Environmental Research and Public Health*, *16*(12), 13–19.https://doi.org/10.3390/ijerph16122102.

DOI: https://doi.org/10.26593/jrsi.v13i2.7773.1-16

This page is intentionally left blank