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Hubungan Usia, Pendidikan, Beban Kerja Mental, SKS, dan Jam Kerja dengan Stres Kerja Dosen Wanita Universitas Airlangga

Relationship Between Age, Education, Mental Workload, Semester Credit Unit, and Work Hours With Work Stress of Female Lecturers at Universitas Airlangga

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ABSTRAK

Latar Belakang: *Stres kerja merupakan reaksi emosional, fisik, dan fisiologis terhadap aspek pekerjaan yang merusak atau berbahaya yang terjadi ketika tuntutan pekerjaan tidak sesuai dengan kemampuan pekerja. Perempuan mempunyai sedikit peluang berkembang ditempat kerja yang di dominasi laki laki. Dosen perempuan mempunyai peran ganda yaitu bertanggung jawab sebagai istri dan ibu. Stres dapat disebabkan oleh faktor-faktor seperti faktor organisasi termasuk tuntutan tugas, tuntutan peran, hubungan interpersonal, pengembangan karir, struktur kerja, dan iklim kerja.*

Tujuan: *Penelitian ini bertujuan untuk menganalisis hubungan antara usia, pendidikan, beban kerja mental, SKS, dan jam kerja dengan stres kerja dosen wanita Universitas Airlangga.*

Metode: *Penelitian ini merupakan penelitian observasional dengan desain cross sectional. Tujuan penelitian ini adalah menganalisis faktor-faktor yang berhubungan dengan stres kerja pada dosen wanita di Universitas Airlangga. Penelitian ini dilaksanakan pada bulan September 2019 – Februari 2020 dengan teknik simple random sampling dengan responden sebanyak 97 orang.*

Hasil: *Hasil penelitian menunjukkan bahwa karakteristik individu meliputi usia dan pendidikan tidak berhubungan dengan stres kerja dosen wanita. Beban kerja mental (p=0,000), satuan kredit semester (p=0,000) dan jam kerja (p=0,000) berkorelasi signifikan dengan stres kerja dosen wanita Universitas Airlangga.*

Kesimpulan: *Kesimpulan dari penelitian ini adalah faktor penyebab stres kerja pada dosen wanita di Universitas Airlangga adalah beban kerja mental, satuan kredit semester, dan jam kerja. Tidak ada hubungan antara pendidikan dan umur dengan stres kerja pada dosen wanita di Universitas Airlangga. Beban kerja mental menyebabkan responden mengalami stres kerja. Penulis merekomendasikan responden untuk mengatur jadwal dan membuat jadwal yang harus diprioritaskan terlebih dahulu. Responden adalah dosen wanita yang memiliki peran ganda dalam pekerjaan dan peran rumah tangga. Sangat penting untuk menciptakan dukungan sosial yang baik.*

Kata kunci: *Beban kerja mental, Jam kerja, SKS, Usia, Pendidikan, Stres kerja*

ABSTRACT

Background: Work stress is an emotional, physical and physiological reaction to the damaging or dangerous aspects of work that occur when the demands of the job do not match the worker's abilities. Women have little opportunity to develop in a male-dominated workplace. Female lecturers have a dual role: being responsible as a wife and mother. Stress can be caused by organizational factors including task demands,

role demands, interpersonal relationships, career development, work structure, and work climate.

Objectives: The purpose of this research is to analyze the relationship between age, education, mental workload, semester credit unit, and work hours with the Work stress of female lecturers at Universitas Airlangga.

Methods: This research was an observational study with a cross sectional design. The purpose of this study was to analyze the factors associated with work stress on female lecturers at Airlangga University. This research was conducted in September 2019 - February 2020 using a simple random sampling technique with 97 respondents.

Results: The results of this research showed that individual characteristics, including age and education did not correlate with female lecturers' work stress. Mental workload (p=0.000), semester credit unit (p=0.000), and work hours (p=0.000) significantly correlate with the work stress of female lecturers at Universitas Airlangga.

Conclusions: The conclusion of this study is that mental workload, semester credits and working hours are the factors that cause work stress among female lecturers at Airlangga University. There is no relationship between education and age with work stress among female lecturers at Universitas Airlangga. Mental workload causes work stress for the respondents. The authors recommend that respondents organize their schedules and determine which schedules should be prioritized first. The respondents are female lecturers with work and domestic roles. It is important to create good social support.

Keywords: Mental workload, Work hours, Semester Credit Unit, Age, Education, Work stress

INTRODUCTION

Airlangga University is one of 500 world-class universities. The prestigious Quacquarelli Symonds World University Rankings (QS WUR) places UNAIR at 369th for 2023 (Universitas Airlangga, 2022). Based Law number 14 on 2005 states that lecturers are are professional educators and researchers whose mission is to spread, develop and transform science, technology and art through education, research and social services. (Depdiknas RI, 2005). In order to achieve the goals set by universities, lecturers are expected to perform various tasks, such as teaching, research, counseling and guiding students' research. Lecturers have to multitask with different tasks and competitions, such as balancing teaching and research, routine workloads with new international teaching pressures, and organizing classes online and offline. (Brown HD, 2007) .

A competitive workplace for lecturers can cause work stress. According to data from the Central Statistics Agency recorded, the percentage of women who become professional workers has reached 49.99% in 2021. This value is up 2.52% points from the previous year which was 48.76% (Badan Pusat Statistik, 2021) . According to (Tarwaka, 2019) excessive workloads on workers can result in excessive energy consumption and trigger overstress. Based on research from NIOSH in 1998 stated that workplace conditions can cause work stress. Job plans, long working hours, heavy workloads, shift work, infrequent breaks,busy and routine tasks that do not use workers' skills and offer little control cause stress. (National Institute for Occupational Safety and Health (NIOSH)), 1998).

Permanent Lecturers who already have a NIDN are required to work full-time 40 (forty) hours every week. According to the Minister of Science, Technology and Higher Education of the Republic of Indonesia (2015), the main task of the lecturer is to pass a minimum of 12 (twelve) credits and a maximum of 16 credits in each semester and carry out the Tridharma of Higher Education. In addition, there are also other assignments such as guiding students to complete their thesis, student guardianship, testing final exams/graduate trials, making lecture material, and research and community service.

According to (Munandar, 2014) stated that individual factors such as age, gender, marital status and years of service can cause work stress. Women have different characteristics from men, physiologically women experience menstrual phases, pregnancy, childbirth and breastfeeding which can cause hormonal changes that can cause stress. In addition, women have feelings that are more sensitive than men and tend to need protection. (Pratiwi and Betria, 2021) . Women have the highest risk of experiencing stress which can have an impact on stress-related illnesses and have a higher desire to leave their jobs (Soeharto, 2013). The results of a

preliminary study conducted on 28 October 2019 among ten female lecturers in Airlangga University show that 80% of the female lecturers experienced low work stress and another 20% experienced moderate work stress. Most women in Indonesia have a dual role in that apart from being a mother and wife to their family, they are also employees in an office or company and this does not rule out the possibility that more and more female employees will experience stress at work (Apollo and Cahyadi, 2012).

Various levels of work stress can be found in an organization because lecturers spend most of their time at work and many tasks and responsibilities are carried out. Work stress can affect the health of lecturers such as fisiological, psychological, and behavioral disorders, therefore a study of stress and its causes in the workplace can be feasible, and by eliminating these factors the organization can have healthier workers (Hadadian and Zarei, 2016).

METHOD

This study is an observational study with a cross-sectional design. The aim of this study was to analyze the factors related to occupational stress among female lecturers at Airlangga University. This study was conducted in Airlangga University through sampling method using simple random sampling with 97 respondents. This study was conducted from September 2019 to February 2020 at Airlangga University. These research variables are age, education, mental load, semester credits (SKS), working time and work stress of Universitas Airlangga female lecturers. The age, education, mental load, semester credits (SKS) and working time of female lecturers are determined by questionnaire. Assessment of workload with CarMen-Q Questionnaire. However, the assessment of work stress is measured by adapting and developing Wijono (2010) with a total of 24 statement items used to measure work stress using a Likert scale. This study used a questionnaire method. The questionnaire given is a questionnaire that has been tested for validity and reliability. The ethical test for this research has passed the requirements at the Faculty of Dentistry, Universitas Airlangga number 004/HRECC.FODM/I/2020.

RESULTS AND DISCUSSION

Individual Characteristics

Based on table 1, the Central Bureau of Statistics explain that the productive age was from 15 to 64 years (The Central Bureau of Statistics, 2019) . In this study, all respondents were in the productive age range. Based on table 1, the respondents' education in this study 59.8% Masters and 40.2 % Doctors , in the selection of lecturer

admissions, the minimum education for lecturers was Master, this means that the level of education was considered for the type of work of a lecturer so that the survey result show that all lecturers have met the requirements to become lecturers, namely the respondent has completed Master's education.

Work Demands

Based on table 2, respondents in this study experienced mental workload, including in the low category of 81.4% to medium of 18.6%. The work of a lecturer where not only teaching, conducting research and community service. However, there are also other jobs, namely as a committee in a faculty or university event, as a structural official and making and preparing questions and assessing exams. Based on table 2, the respondents in this study carried <12 semester credit unit, 12 -16 semester credit unit, and > 16 semester credit unit. In accordance with the academic qualifications, the lecturer's task is to task is to complete the university tridharma with a minimum workload equivalent to 12 (twelve) crerdits and a maximum of 16 (sixteen) credits in each semester. Based on table 2, the respondents in this study have 40 hours per week and > 40 hours per week. attention so that lecturers can work according to the set hours. Excessive working hours due to the number of credits of more than 16 credits plus additional assignments such as serving as department head and so on which have to divide time for teaching, attending meetings and so on.

Table 1. Indiviidual Characteristics

Variable	Category	Frequency	%
Age	26-35 year	44	45.4
	36-45 year	22	22.7
	46-55 year	21	21.6
	56-65 year	10	10.3
	Total	**97**	**100.0**
Education	Master	58	59.8
	Doctor	39	40.2
	Total	**97**	**100.0**

Table 2. Work Demand

Variable	Category	Frequency	%
Mental Workload	Low	79	81.4
	Moderate	18	18.6
	Total	**97**	**1000**
Semester credit unit (SKS)	< 12	30	30.9
	12-16	54	55.7
	>16	13	13.4
	Total	**97**	**100.0**
Work Hours	40 Hours	74	76.3
	>40 Hours	23	23.7
	Total	**97**	**100.0**

Work Stress

Based on table 3, respondents in this study experienced work stress, including in the low category of 84.5% to medium of 15.5%. Even

though they are experiencing work stress, the lecturers remain positive attitude and carrying out their duties as lecturers because it had become a professional requirement for themselves. Low to moderate stress levels can improve performance, workers still feel that stress is an unpleasant condition for workers (Central Bureau of Statistics, 2019). To prevent work stress, career planning is needed according to research from (Prasetyo, 2015) factors that influence happiness at work include relationships with others, full involvement, discovery of meaning (spirituality) and career development.

Relationship Between Individual Characteristics with Work Stress

Based on table 4 was explain that age and work stress have a significance result of 0.454, which means that there was no significant relationship between age and work stress. Then, education with Work stress obtained a significance result of 0.986, which means there was no significant relationship between education and work stress of women lecturers at Universitas Airlangga. This is in line with research from (Pratiwi, Martiana and Arini, 2020) which stated that there is no significant relationship between age and work stress ($p = 0.456$). However, this result contradicts research from (Agai-Demjaha, Bislimovska and Mijakoski, 2015) which states that there was significant related to level of education ($p < 0.05$).

The results of statistical analysis of the relationship between age with work stress of women lecturers at Universitas Airlangga showed a p-value of 0.454 which means ($p > 0.05$) that there was no relationship between age with work stress of female lecturers at Universitas Airlangga. The absence of a relationship between this stress level can be caused

by the fact that younger women have good adaptation abilities to the environment and work records, which have qualified work skills. Despite having a lot of experience, with better adaptability, older workers were also prone to experiencing health problems, errors or decreased physical abilities (Gracia-Marco *et al.*, 2010). In this study, age was not related to work stress, because lecturers had the same rights, responsibilities and workloads so the age variable was not related to the Work stress of the lecturers. This study is in line with the research of (Fiddaraini A., Denny H.M., 2016) at Diponegoro University Semarang lecturers in 2016 the results showed that age was not significantly related to work stress levels with a p value of 0.105.

The results of statistical analysis of the relationship between education with work stress of female lecturers at Universitas Airlangga showed a p-value of 0.986 which means ($p > 0.05$) that there was no relationship between the level of education with Work stress of female lecturers at Universitas Airlangga. This study was in line with (Yanto, A., & Rejeki, 2017) research that there was no significant relationship between the level of education of nurses and a decrease in Work stress of nurses at SMC with value ($p = 0.626$). In this study, the results were not related because the level of education of the lecturers was mostly the same so that each lecturer had the same knowledge, skills and responsibility for completing work (Lubis, R., & Budiman, 2014).

Table 3. Work Stress

Variable	Category	Frequency	%
Work Stress	Low	82	84.5
	Moderate	15	15.5
	Total	**97**	**100.0**

Table 4. Relationship Between Individual Characteristics with Work Stress

No	Variable	Category	Work Stress		Sig
			Low	**Moderate**	
			n	n	
1	Age	26-35 year	36	8	
		36-45 year	21	1	
		46-55 year	17	4	0.454
		56-65 year	8	2	
2	Education	Mater	49	9	0.986
		Doctor	33	6	

Relationship between Work Demand with Work Stress

Based on table 5, mental workload and work stress have a significance result of 0.000, which means that there was a significant relationship between mental workload and work stress. SKS with work stress obtained a significance value of 0.000, which means that there was a significant relationship between SKS and work stress. Working hours with work stress obtained a significance value of 0.000,

which means that there was a significant relationship between working hours and work stress.

The results of statistical analysis of the relationship between mental workload with work stress of female lecturers at Universitas Airlangga showed a p-value of 0.000 which means ($p < 0.05$), it shows that there was a relationship between mental workload with Work stress of female lecturers at Universitas Airlangga. The workload is one of the demands that becomes a stressor in work and

excessive workload or too little workload is a generator of stress (Munandar, 2014). The results of the research carried out are in line with research by Kusnadi which states that there is also a positive relationship between workload and work stress = 0.782 (p <0.05) and not only external factors that can affect work stress but can also be influenced by internal factors (Kusnadi, 2014). In this study, it can be seen that the work stress level of female lecturers at Universitas Airlangga was included in the category of light to moderate Work stress with low to moderate mental workload levels. In other words, the majority of lecturers thought that their work was not too difficult to do, and described the absence of difficulty in exerting effort to do their work. High mental workload can be assumed as a burden on processes in the central nervous system. This burden can affect the activity or work of the central nervous system. Lecturers can communicate problems directly with superiors, colleagues, this helps reduce the pressure that come from the perceived workload. The interdependence of individuals with tasks, and tasks with others, has the potential to cause stress (Robbins S and Judge TA., 2017) .

Respondents in this study had credits of <12 credits, 12-16 credits and> 16 credits. The results of statistical analysis of the relationship between semester credit unit with work stress of female lecturers at Universitas Airlangga showed a p-value of 0,000, which means (p <0.05), it shows that there was a relationship between the semester credits unit with Work stress of female lecturers at Universitas Airlangga. The workload given to lecturers is in the form of semester credit units units (SKS) which is a measure of appreciation for the workload of lecturers in implementing the Tridharma of Higher Education as many as 12 credits per semester or equivalent to 36 hours per week (Fikri Zaidan and Juariyah, 2020). Respondents in this study still have credits of more than 16 credits, this is not in accordance with the Law of the Republic of Indonesia Number 12 of 2012 which states that the maximum workload is 16 credits per semester. The dimensions of education and teaching in each faculty each semester was the main tasks that was always carried out by the lecturers while other activities such as guiding theses, theses were carried out for lecturers who have met the specified semester credits unit qualifications, likewise being a lecturer guardian, for some lecturers do not do it because they were young lecturers. In the dimension of community service, this dimension of community service was still not optimal, constrained by the lack of cooperation between universities and outsiders. The concept of link and match between parties outside of higher education (government, private sector, and the world of work) and universities has not been optimally developed.

High workload causes reduced opportunities for lecturers to prepare materials, methods and media in the learning or teaching process. In addition, the high workload also reduces the time that can be used by lecturers to improve their abilities and knowledge. This means that lecturers will lose little opportunity to get the latest information both regarding technological developments, new theoretical developments and the latest methods in their knowledge. As well as reduced time to conduct research and community service.Therefore, it is important to pay attention, because excessive assignments or demanding job responsibilities can cause stress (Robbins S and Judge TA., 2017).

The results of statistical analysis of the relationship between working hours with work stress of female lecturers at Universitas Airlangga showed a p-value of 0.000 which means (p <0.05), this indicates that there was a relationship between working hours with Work stress of female lecturers at Universitas Airlangga. Respondents in this study have working hours of 40 hours per week and > 40 hours per week. In accordance with Law Number 13 of 2003 concerning Manpower, namely for employees who work 6 days a week, the working hours are 7 hours in 1 day and 40 hours in 1 week. Whereas for employees with 5 working days in 1 week, the obligation was 8 hours in 1 day and 40 hours in 1 week (concerning Manpower, 2003) . However, there are still lecturers who work more than 8 hours per day where work that exceeds 8 hours / day and 40 hours / week will result in.

Table 5. Relationship between Work Demand with Work Stress

No	Variabel	Category	Work Stress		Sig
			Low	Moderate	
			n	n	
1	Mental Workload	Low	73	6	0.000
		Moderate	9	9	
2	Semester credit unit (SKS)	< 12 SKS	29	1	0.000
		12 – 16 SKS	48	6	
		>16 SKS	5	8	
3	Work Hours	40 H	70	4	0.000
		>40 H	12	11	

physical and mental fatigue which can lead to stress (Suma'mur, 2009). Workers in a work environment of around 40 hours per week if the increase in working hours can cause workers to become stressed (Robbins S and Judge TA., 2017) . This Research in line with (Lukas *et al.*, 2018) which stated that there is a relationship between working hours and work stress with the strength of the weak relationship and the direction of the relationship positive .

CONCLUSION

The conclusion of this study is the factors that cause work stress on female lecturers at Airlangga University are mental workload, semester credit units, and working hours. There is no relationship between education and age with work stress among female lecturers at Universitas Airlangga. Mental workload causes respondents to experience work stress. The authors recommend respondents arrange schedules and make schedules that must prioritize first. Respondents are female lecturers who have double roles in work and household roles. It's important to create good social support. The suggestion given needs to redesign the work environment and provide counseling services. The limitation of this study is the small number of respondents so the data obtained is less diverse. So, the author hoped that previous research could get a larger sample so the results obtained are more diverse.

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