



RESEARCH ARTICLE

The Effect of Workload and Length of Service on Stress Levels in Achieving Job Satisfaction at the Makassar Health Laboratory Center, Indonesia

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ARTICLE INFO	ABSTRACT
Received: Oct 17, 2024 Accepted: Dec 20, 2024	Job satisfaction of the workforce or employees is influenced by many factors, both intrinsic factors of employees and extrinsic factors of the work environment and policies of the leadership of the organization or work agency. This study aims to analyze the effect of workload and length of service and stress levels on job satisfaction. This study design was observational using a cross-sectional design. The research sample was 75 employees of the Makassar Public Health Laboratory Center. The sample selection method was purposive sampling. The analysis method used was the Spearman Correlation and Multiple Linear Regression statistical tests. The test results are significant if the p value <0.05. The results showed a significant negative effect of workload on stress level (r=-0.331, p=0.004), a significant positive effect of workload on job satisfaction (r=0.315, p=0.006) and a significant negative effect of stress level on job satisfaction (r=-0.399, p=0.000). There was no significant effect of work duration on stress level (r=0.044, p=0.710) and job satisfaction (r=-0.055, p=0.640). High workload affects high levels of stress which in turn has an impact on low job satisfaction. Routine and regular monitoring and supervision by agency leaders is recommended.
Keywords Workload Length of Service Stress Level Job Satisfaction	
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INTRODUCTION

Every government agency is required to be able to optimize human resources and how human resources are managed. Human resource management cannot be separated from the employee factor which is expected to perform as well as possible in order to achieve the goals of government agencies. Employees are the main assets of the agency and have a strategic role in the agency, namely as thinkers, planners, and controllers of agency activities.

Human resources (HR) play the most important role in every implementation of organizational activities, the existence of human resources determines the failure or success of an organization. HR is very important for organizations in organizing, managing, and utilizing employees so that they can work optimally to achieve organizational goals (Mangkunegara, 2021).

HR as a system manager in the organization, of course in this case there are aspects that need to be considered by HR such as discipline, education and training and work comfort. Therefore, with good HR, it is hoped that the work results or organizational performance can be achieved properly as well. According to Mangkunegara (2021) work stress is a feeling of pressure experienced by employees in

dealing with their work. The causes of this work stress are high workloads, interpersonal and group conflicts to problems related to family and physical problems (Handoko, 2016).

The Central Statistics Agency in 2014 stated that 11.6-17.4% of the 150 million adult population in Indonesia experienced mental emotional disorders or mental health disorders in the form of work stress (Setiawan MR, 2019). In addition, according to data compiled from Representatives of the Indonesian Association of Occupational Medicine Specialists, said conditions in Indonesia, 60.6% of small and medium industrial workers experienced depression and 57.6% experienced insomnia (Department of Health, 2017). This data shows that work stress is still a problem in Indonesia. Based on the above background, the purpose of this study is to analyze the effect of workload and work duration on stress levels in achieving job satisfaction.

METHODS

The research method conducted was observational with a cross-sectional approach. The study population was all employees of the Makassar Public Health Laboratory Center. The research sample is a member of the population selected according to the purposive sampling method used, which is 75 samples.

The data collection method used was direct interviews with a sample of respondents using a pre-prepared questionnaire. The data collected consisted of demographic data, length of service, workload, stress level and job satisfaction. The length of work is based on the start of work at Makassar Public Health Laboratory Center until the time of the research.

Data on workload, stress level and job satisfaction were measured using a questionnaire, which contained Likert scale statements with an ordinal measuring scale. The questionnaire was tested for validity and reliability before the research was conducted. The workload questionnaire consists of 12 statements with a minimum score of 12 and a maximum of 60, the stress level questionnaire consists of 30 statements with a minimum score of 30 and a maximum of 210, while the job satisfaction questionnaire consists of 20 statements with a minimum score of 20 and a maximum of 100.

Data analysis was carried out using the following stages; Univariate Analysis. Aims to describe the dependent and independent variables to obtain a description of the sample characteristics using descriptive statistical calculations and frequency distribution tables; Bivariate Analysis. Aiming to analyze the influence of workload variables, length of work, stress level on job satisfaction. The statistical test used is the Spearman Correlation test. The test results are significant (meaningful) if the p value is <0.05 . If the test results are significant then the correlation coefficient (r) is assessed, namely; weak relationship ($r < 0.250$), moderate relationship ($0.250 < r < 0.500$), close relationship ($0.500 < r < 0.750$) and very close relationship ($r > 0.750$); Multivariate Analysis. The method used is the Multiple Linear Regression test, which aims to assess the variables that most significantly affect job satisfaction.

RESULTS

This study was conducted on 75 respondents, aged between 25 - 62 years with a mean of 41.6 40.5 years. Most of the respondents were female, 47 people (62.7%), while 28 people (37.3%) were male. The lowest respondent education was completed secondary (13.3%) and the rest had completed higher education (86.7%). Most respondents' work units were laboratory units (57.3%), administration 36.0% and others (6.7%).

Table 1. Overview of the Research Sample (n=75)

Characteristics	N (%) or mean \pm SD
Age (year)	40.5 \pm 9.3

25-29 years	13 (17.3)
30-39 years	20 (26.7)
40-49 years	27 (36.0)
50-62 years	15 (20.0)
Education	
Completed secondary	10 (13.3)
Completed tertiary education	65 (86.7)
Work Units	
Administration	27 (36.0)
Laboratory	43 (57.3)
Others	5 (6.7)
Workload Score	41.6 ± 3.3
Length of Service (year)	9.1 ± 6.7
Stress Level Score	53.9 ± 22.7
Job Satisfaction Score	82.7 ± 9.2

Based on the results of the respondents answers to the workload measurement in the questionnaire, the workload score was obtained between 35 - 51 with an average of 41.6 or 69.3% of the maximum score of 60 (included in the category not burdensome). Respondentss length of service, in this case the length of time respondents have worked at this place, varies between 1 - 30.5 years with an average of 9.1 years. Based on the answer scores for measuring stress levels, the scores ranged from 30 - 109 with a mean of 53.9 or 25.7% of the maximum score of 210 (included in the rarely stressful category). Meanwhile, based on the answer score for measuring job satisfaction, the score is between 60 - 100 with an average of 82.7 or 82.7% of the maximum score of 100 (included in the satisfied category).

Bivariate Analysis

Bivariate analysis was conducted to assess the effect of workload and work duration on stress levels and job satisfaction. In this bivariate analysis, the Spearman Correlation test was used because the two variables assessed had numerical data with an ordinal measurement scale.

Table 2. Correlation of Workload and Length of Service to Stress Level and Job Satisfaction

Variables	Stress Level Score		p-value	Job Satisfaction		p-value
	n	(%)		n	(%)	
Workload Score	75	100.0	0.004	75	100.0	0.006
Length of Service (years)	75	100.0	0.710	75	100.0	0.640

Variables	Job Satisfaction		p-value
	n	(%)	
Stress Level	75	100.0	0.000

Effect of Workload on Stress Level

The results of the Spearman Correlation test of the effect of workload on stress levels, where the value of $p = 0.004$ is significant ($p < 0.05$), with a correlation coefficient value of $r = 0.331$ which means a negative correlation with moderate closeness ($0.250 < r < 0.500$). This indicates a significant negative correlation between the workload score and the stress level score, which means that the lower the workload score, the higher the stress level score. Thus, the results of this analysis indicate

a significant effect of workload on stress levels, where the heavier the workload the higher the stress level. The figure below shows the effect of workload on stress levels, where the correlation trend line looks downward (negative).

Effect of Workload on Job Satisfaction

The results of the Spearman Correlation test of the effect of workload on job satisfaction, where the p value = 0.006 is obtained which means significant ($p < 0.05$), with a correlation coefficient value of $r = 0.315$ which means a positive correlation with moderate closeness ($0.250 < r < 0.500$). This indicates a significant positive correlation between the workload score and the job satisfaction score, which means that the higher the workload score, the higher the job satisfaction score. Thus, the results of this analysis indicate a significant effect of workload on job satisfaction, where the lower the workload the higher the job satisfaction. The figure below shows the picture of the effect of workload on job satisfaction, where the correlation trend line looks climbing (positive).

Effect of Stress Level on Job Satisfaction

The results of the Spearman Correlation test of the effect of stress level on job satisfaction, where the p -value = 0.000 which means significant ($p < 0.05$), with the correlation coefficient value $r = 0.399$ which means a negative correlation with moderate closeness ($0.250 < r < 0.500$). This indicates a significant negative correlation between the stress level score and the job satisfaction score, which means that the higher the stress level score, the lower the job satisfaction score. Thus, the results of this analysis indicate a significant effect of stress level on job satisfaction, where the higher the stress level the lower the job satisfaction. The figure below shows the effect of workload on stress levels, where the correlation trend line looks down (negative).

Effect of Length of Service on Stress Level

The results of the Spearman Correlation test of the effect of length of work on stress levels, where the value of $p=0.710$ is obtained, which means it is not significant ($p>0.05$). This shows that there is no significant correlation between length of service (years) and stress level score, which means that there is no significant effect of length of service on stress level. Thus, this result shows that the level of stress experienced by respondents is not different between those who have been working for a long time and those who are new to this place.

Effect of Length of Service on Job Satisfaction

The table above shows the results of the Spearman Correlation test of the effect of length of service on job satisfaction, where the value of $p=0.640$ is obtained, which means it is not significant ($p>0.05$). This shows that there is no significant correlation between length of service (years) and job satisfaction scores, which means that there is no significant effect of length of service on job satisfaction. Thus, this result shows that the level of job satisfaction felt by respondents does not differ between those who have been working for a long time and those who are new to this place.

Multivariate Analysis

Multivariate analysis aims to determine the most significant variables affecting job satisfaction. The statistical method used is the Multiple Linear Regression test on workload variables and stress levels, where both variables are significant in the results of the bivariate analysis above.

Table 3. Effect of Workload and Stress Level on Job Satisfaction Score

Variables	Job Satisfaction		P
	Estimate±SE	t	
Workload Score	0.011±0.018	0.606	0.546
Stress Level Score	-0.008±0.003	-2.873	0.005

Table 3 above shows the results of multivariate analysis, where it can be seen that the most significant variable affecting job satisfaction is the level of stress ($p < 0.05$), while the workload variable is no longer significant ($p > 0.05$) because it is represented by the stress level variable.

DISCUSSION

Job satisfaction is a feeling of whether or not someone is happy with their job. Job satisfaction is a positive attitude that arises from an assessment of the work situation. This assessment can be made of one job or the whole job. Many factors can affect job satisfaction, such as workload, length of service, stress levels, work atmosphere and environment, leadership attitudes, and fair and appropriate compensation. Below we will discuss the effect of workload, stress level, length of service on job satisfaction. In this study, job satisfaction assessment is based on the total score of answers to 20 statements about job satisfaction with the score of each question is 1 - 5. The average score of respondents is 82.7% which is included in the satisfied category.

Workload is the number of tasks or responsibilities that must be completed by employees within a certain period of time. Workload can be in the form of physical workload and psychological workload. Workload includes various aspects, such as: Amount of work, Complexity of tasks, Time pressure, Resources available to complete the work. In this study, it was found that there was a significant effect of workload on stress levels, where the heavier the workload the higher the stress level. This result is in accordance with the results of previous research (Handoko, 2016 and Mangkunegara, 2021) which states that work stress is a feeling of pressure experienced by employees in dealing with their work, where the cause of this work stress is high workload.

Excessive workload can cause work stress. Excessive workload can be in the form of too many activities given to the workforce to complete within a certain time. Work stress can have an impact on the quality of employee work, such as lack of focus, irritability, and difficulty making decisions (Brewer, 2003 and Chusna, 1987). In this study, it was found that there was a significant effect of workload on job satisfaction, where the lower the workload, the higher the job satisfaction. Workload can have a negative impact on job satisfaction if it exceeds employee resources. This can cause; stress: employees may feel anxious and uncomfortable if they have too much work to do in a short time; fatigue: employees may feel overwhelmed and lose control of the situation and so on which ultimately results in low job satisfaction (Gottwald D. and Lejskova P. . 2023).

Workload and job satisfaction have a negative relationship. When employees feel they have an excessive workload or insufficient time to complete their tasks, they may experience feelings of burden, anxiety and frustration. These emotions can lead to decreased job satisfaction, as employees may believe that they are unable to meet their goals or fulfill their job responsibilities effectively. In addition, excessive workload can result in a lack of autonomy, reduced social support, and other negative impacts on work (Hussain et.al, 2023). In this study, it was found that there was a significant effect of stress levels on job satisfaction, where the higher the stress level the lower the job satisfaction. Job stress can negatively affect employee job satisfaction. The higher the level of job stress, the lower employee job satisfaction will be. Job stress is a psychological phenomenon that can affect employee health and performance. job stress can arise due to various things, such as: high workload, the time specified to complete the job, the imbalance between employee abilities and job demands. The results of a survey conducted by Ramdani and Wartono stated that around 50.9% of health sector employees in Indonesia experienced work stress with symptoms such as dizziness, fatigue, and inability to rest due to high workload and time-consuming (Hariyono.W, et al, 2009).The impact of increased job stress is that the performance of health workers will decrease and will have an impact on low job satisfaction.(Setiawan, MR, 2019).

Length of service is the time a person has worked in a company, office, agency, or institution. The length of service can be used to determine employee rights, such as salary, benefits, bonuses, and

pensions. The length of service is calculated based on when the employee started working, including the probationary period. In this study, there was no significant effect of length of service on stress levels. This is different from other researchers, where length of service or tenure can affect job satisfaction, the longer a person works, the more his job satisfaction will increase. Employee age also has a positive correlation with job satisfaction, meaning that the more mature the age, the more employees will feel satisfaction at work (Syahwaldi, P et al, 2024). Length of service can affect job stress. Research shows that there is a significant relationship between tenure and job stress in employees. Work stress can have an impact on work quality, morale, and work productivity. Employees who experience work stress can become less focused, irritable, and have difficulty making decisions.

In this study, there was no significant effect of length of service on job satisfaction. Length of service plays a significant role as a moderator in the relationship between the two variables. The negative correlation between job satisfaction and intention to leave the organization was stronger in participants with higher levels of length of service compared to participants with lower levels of length of service. The results of this study imply that individuals tend not to be willing to sacrifice what they get while working in the organization even though their level of job satisfaction tends to be low (ChristianY, and Eflina P, 2021). Other research that states a significant relationship between length of service and job satisfaction is the result of Robbins (2002) research.

CONCLUSION

The study reveals that workload significantly impacts both stress levels and job satisfaction; heavier workloads are associated with higher stress levels, whereas lighter workloads correspond to greater job satisfaction. Additionally, stress levels negatively influence job satisfaction, with higher stress levels resulting in lower satisfaction. However, the length of work does not affect stress levels or job satisfaction, as these factors remain consistent regardless of whether an individual has worked for a long time or recently started their job. The need for routine and regular monitoring and supervision by leaders and facilitating the creation of a work atmosphere conducive to the prevention of work stress.

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