

The Correlation between Years of Work and Work Shifts with Job Stress in Call Center Agents in the Surabaya Customer Service Company

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ABSTRACT

Introduction: A Surabaya customer service company provides 24-hour call center services by implementing a work shift system, even though not all employees can adjust to work shifts. New employees must perform some adjustment or adaptation to their job. They must remain calm and patient in providing information and solving problems that customers convey, resulting in a very high mental needs of each call center agent. Monotonous activity and unpleasant customers trigger work stress on employees, which is marked by complaints of dizziness after work and emotional feeling. The objectives of this study was to analyze the correlation between years of works and work shifts with job stress in call center agents of the Surabaya customer service company. **Methods:** This study was a descriptive observational study with a cross sectional study design. The population in this study was all call center agents of a customer service company in Surabaya. The samples were 45 respondents, obtained through random sampling. Data were obtained from answered questionnaires and were analyzed using the contingency coefficient test. **Results:** Most call center agents had years of work of ≥ 1 -3 years (53.3%). They also experienced very heavy job stress (51.1%). The results of the contingency coefficient was 0.436. The majority of call center agents experienced very heavy job stress, specifically those working in the morning shift (53.3%), day shift (40%) and night shift (60%). The results of data analysis using the contingency coefficient test was 0.338. **Conclusion:** There was a moderate correlation between years of work and job stress. There was a low correlation between work shifts and job stress.

Keywords: years of work, work shift, job stress

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INTRODUCTION

Current technological developments require companies to carry out computerized-based production processes and provide services both offline and online. This supports the growth and development of the contact center service industry that serves to receive requests, information and customer complaints in the development of computers and information technology in a company (Ramadhania and Parwati, 2015). A call center or commonly referred to as a contact center is an organizational body designed to interact directly with customers via telephone services using display screen equipment simultaneously (Basyiruddin and Silvianita, 2018).

Call center work is intensive or focuses on one problem in a short time and demands unrealistic achievement of production targets. Thus, call center agents are prone to stress because they are required

to always be professional under any circumstances in order to maintain the company's good image and name. Based on the Medibank Private Job Stress report in Australia, the Australian economy loses USD \$ 14.1 billion per year due to job stress. Meanwhile, based on the results of a survey conducted on American society, 37% said they did a very good job and were able to manage stress well (Wakhid, *et al.*, 2020).

Research conducted by Reynolds (2015) in the United States found that the average cost that must be spent to change a call center agent was \$ 6,000, which covered recruitment, training, time supervision and other costs to become experts. Because of the impact of work stress, it is very necessary to do an analysis related to the demands of the task, interpersonal conflict and career development with job stress in call center agents. Thus, the right steps to improve the condition can be identified.

According to Tarwaka (2014), one of the impacts of work stress is turnover. This is an indication of the existence of job stress in the call center agents. Job stress that threatens the profitability of the

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company can be caused by several factors. There are job factors (intrinsic jobs, individual role factors in work organizations, working relationship factors, career development factors, organizational structure factors and work atmosphere) and several extrinsic factors that need to be identified by the company in the work environment.

The International Labour Organization (2013) stated that psychological factors are one of the aspects that should be considered on labor as one of the potential hazards caused is the job stress. Organizational characteristics that support the occurrence of work stress include mutations, career paths, lack of autonomy, workload, interactions, years of work and work shifts (Rhamdani and Wartono, 2019).

According to Ibrahim *et al.* (2016), short and long years of work can trigger work stress, and this is exacerbated by heavy workloads. In a short work period, an individual must adjust to the job, the new environment and the problems that may occur. Meanwhile, during the long years of work, workers have a routine at work, so in the end it will cause a feeling of boredom and stress if it is not handled properly.

According to Saridewi (2019), workers with longer years of work have more experience than new workers, so workers who have worked for a long time can understand the conditions of the workplace environment. Workers who better understand the conditions of the work environment will understand the risks or problems that exist in the workplace better, so these workers will be more careful in working and can distinguish between problems that can be faced casually or must be faced seriously so as to prevent a lot of job stress.

Measurements of job stress based on years of work show that workers with long working tenure tend to experience moderate work stress more frequently. This can be caused by workers giving negative work experiences in the form of disharmony among workers, lack of good communication, less sense of responsibility, and boredom.

In addition, respondents in the weaving section tend to feel bored easily due to activities or workplace conditions and lack of communication in addressing problems. Work stress experienced by workers can trigger an impact on workers. The impact that occurs is not always the same between one worker to another. This is because each respondent has his own way to solve the problems that exist within himself (Jati, 2018).

The shift work system results in disruption of circadian rhythms and job stress. Stress occurs because the body tries to adapt to the shift work system in a relatively short time. When individuals work night shifts, they can experience disturbances in the circadian rhythm because the individual opposes the natural changes in body rhythm, which are characterized by sleep disturbances. Changes in body rhythm can hinder the recovery of job stress. In addition, shift workers complain more often about fatigue and stomach upsets than morning / afternoon workers do, and the impact of shift work on eating habits may lead to stomach upsets. This condition affects both emotional and biological factors, due to disruption of the circadian rhythm of the temperature patterns of sleep/ wake cycle and the rhythm of adrenaline release (Firmana and Hariyono, 2013).

Another important discussion is about the implementation of work shifts to work staff. A call center agent is also required to maintain professionalism in facing various customer complaints. This is one form of mental workload influencing the high turnover intention (Sudirman, 2019). The Surabaya customer service company is a subsidiary of the Telkom Group engaged in the field of human capital services. One type of work carried out by the recruitment process is a call center. To provide maximum service to customers, the company provides a call center service that can be contacted 24 hours.

The 24-hour call center service makes the Surabaya customer service company hire work staff in work shifts where the number of work shifts of the call center agents is 3 (three) shifts. Firmana and Hariyono (2013) explained that there was a significant difference between the shift and non-shift workforce on the level of job stress. There was an increase in job stress in workers with shifts compared to workers without shifts.

In fact, not everyone can adjust to work shifts. Research conducted at the Surabaya City PDAM Call Center Agent used a system of 3 (three) work shifts and showed that there was a relationship between work shifts and job stress events (Puspasari, 2019). This indicates that the work shift triggers work stress.

Every day a call center agent can receive many phone calls and must serve the customers in a kind and friendly manner to help them solve the problems. The varying characters and nature of different customers can, however, disrupt and slow down the delivery of the information provided. A

call center agent, every time communicating with customers, has a target time, and the conversation will always be recorded by the company. This aspect is used as a parameter to assess the performance of each call center agent. Under considerable pressure, call center agents must have better performance and competence than workers in other companies. Thus, it can be said that being a call center agent is a difficult type of work (Ramadhania and Parwati, 2015).

During a preliminary study, the call center agents complained of dizziness after doing their work and felt emotionally easily. These conditions are seen as results of monotonous activities of the obligation to face various types of customers, both the pleasant and unpleasant ones. According to Robbins and Coulter (2018), dizziness and emotional feeling, are symptoms of job stress both psychologically and physiologically. Job stress can occur at call center agents, whose main task is to provide information, services and also solutions to customer complaints (Untari and Faizal, 2019).

Each call center agent certainly has different individual characteristics. Moreover, the interaction between the call center agents and their colleagues also has the potential for conflict. This interpersonal conflict is due to differences in individual perceptions of something (Dewi and Handayani, 2013). Uncomfortable work environment, low compensation, damaging behavior due to continuous exposure to complaints, lack of training, and erratic working hours can cause work stress and psychological impacts, resulting in high turnover rates of call center agents (Wakhid *et al.*, 2020).

Job stress is one of the causes of the decline in performance that results from employees who often experience job stress and work fatigue. These two symptoms can be caused by overwork or by other contributing factors such as individual characteristics, work shifts, years of work and work status (Aji, 2017). If these factors are not analyzed immediately, the job stress on employees will gradually increase and have an impact on complaints, health problems of employees, and their performance (Mariyam and Pertiwi, 2015).

Job stress if not handled properly can cause physical and psychological illnesses and can affect the performance of call center agents on service quality. This ultimately will affect the perception of the customers and relationships between the call center agents and the customers, which ultimately can harm the company itself (Ansori and Martiana, 2017).

It will certainly be detrimental for the company if workers do not work optimally, and the company is forced to keep replacing the old workers with the new workers, causing repeated recruitment process and high operational costs. Mahan *et al.* (2019) reported that 22 out of the 100 workers throughout the world resigned voluntarily from their workplace due to poor career development.

Aji (2017) argued that an effort to cope with job stress in employees can be done by looking at the triggers for job stress. Furthermore, job stress that occurs in employees must be managed and controlled well where the company should make solutions to reduce the amount of job stress that occurs in the workplace.

Based on the background above, this study was carried out to analyze the correlation between years of work and work shifts with job stress in call center agents in the Surabaya customer service company.

METHODS

This research has gone through an ethical review process and has passed the ethical review number 365/HRECC.FODM/VIII/2020. This research was a quantitative research that focused on data in the form of numbers, which were later processed by statistical methods. This study used an observational analytic approach. The design of this research was cross sectional as the research was conducted at one time or at a certain period, and the observation of the object of study was only done once (point time approach).

This study analyzed the correlation between years of work and work shifts with job stress in call center agents in the Surabaya customer service company. The research was conducted in the Surabaya customer service company located on Manyar Street, Surabaya, East Java (60117) and at the Office of the agent call center unit managed by the Surabaya Customer Service Company.

The research was conducted in March - November 2020. The stages of this research were preliminary study, literature study, determination of operational variables and definitions, determination of the number and sampling method, preparation of research, collection of primary and secondary data, data processing and data analysis. Then, the results of the research and their discussion were presented, followed by conclusions and suggestions.

The population in this study was all call center agents in one of the customer service company units

in Surabaya. The population of call center agents in each unit was different. In this study, the population of the call center agent research was 187 people.

The research samples in this study were part of the call center agents of a customer service company in Surabaya who worked during the morning, afternoon and night shifts. In choosing samples, there were several inclusion and exclusion criteria that had to be fulfilled.

The inclusion criteria of this research sample were as follows: every call center agent was located in the same unit in the customer service company in Surabaya, all call center agents were willing to become a respondent in this study, and they filled the questionnaire honestly without coercion. Meanwhile, the exclusion criteria of the sample of this study were as follows: the call center agents were in different units or different companies, and call center agents were not willing to become a research respondent.

Sampling was done using simple random sampling, that is, every member of the population had the same opportunity to become a sample. Samples were taken based on the attendance list for each work shift (morning, afternoon and evening). The proportion of sampling was 1/3 for the morning shift, 1/3 for the day shift and 1/3 for the night shift. The sampling technique used the random function in Microsoft Excel to generate random numbers in the specified range of numbers intended.

The variables in this study were the dependent variables and the independent variables. The dependent variables contained job stress, which consisted of no stress, mild stress, moderate stress, severe stress and very heavy stress. Meanwhile, the independent variable consisted of years of work and work shifts.

The stages of data collection used two methods, namely primary data and secondary data. Primary data were obtained from the results of preliminary studies and questionnaires. Meanwhile, secondary data were obtained from company profiles and literature studies.

The instrument in this study was a questionnaire sheet distributed to the call center agents of the Surabaya customer service company using an online platform or Google Forms. The questionnaires were distributed on each work shift with a time interval according to the respondents' work shift schedule. The research instrument must have good validity and reliability so that the measuring instrument is

Table 1. Distribution of Years of Work of Call Center Agents in the Surabaya Customer Service Company in 2020

Years of Work	Frequency (n)	Percentage (%)
≤ 1 Year	6	13.3
>1 – 3 Year	24	53.4
>3 Year	15	33.3
Total	45	100

Table 2. Distribution of Work Shifts of Call Center Agents in the Surabaya Customer Service Company in 2020

Work Shift	Frequency (n)	Percentage (%)
Morning Shift	15	33.3
Afternoon Shift	15	33.3
Night Shift	15	33.4
Total	45	100

Table 3. Distribution of Job Stress of Call Center Agents in the Surabaya Customer Service Company in 2020

Work stress	Frequency (n)	Percentage (%)
No work stress	10	22,2
Light	2	4.4
Medium	3	6.7
Heavy	7	15.6
Very Heavy	23	51.1
Total	45	100

suitable for use in collecting the required data. The job stress variable was measured using the DASS-42 questionnaire, which is a standard instrument, so that its validity and reliability have been tested. Furthermore, the data were processed and analyzed to be further interpreted.

The results of the research data were later analyzed with contingency coefficient and cross tabulation. Following this, the contingency coefficient was interpreted by referring to de Vaus.

RESULTS

In this study, the data were obtained through a questionnaire on work shifts, work period and work stress, all of which were then processed in the form of tables along with the analysis. The research results are presented in the variable distribution tables of the call center agents in the customer service company in Surabaya.

Table 4. Correlation of Years of Work with Job Stress on Call Center Agents in the Surabaya Customer Service Company in 2020

Years of Work	Job Stress						Contingency Coefficient
	No stress	Light	Medium	Heavy	Very Heavy	Total	
≤ 1 Year	1 (16.7%)	0 (0%)	1 (16.7%)	2 (33.3%)	2 (33.3%)	6 (100%)	0.436
>1-3 Year	4 (16.7%)	1 (4.1%)	2 (8.3%)	1 (4.2%)	16 (66.7%)	24 (100%)	
>3 Year	5 (33.3%)	1 (6.7%)	0 (0%)	4 (26.7%)	5 (33.3%)	15 (100%)	
Total	10 (22.2%)	2 (4.4%)	3 (6.7%)	7 (15.6%)	23 (51.1%)	45 (100%)	

Table 5. Correlation of Work Shift with Job Stress on Call Center Agents in the Surabaya Customer Service Company in 2020

Work Shift	Job Stress						Contingency Coefficient
	No stress	Light	Medium	Heavy	Very Heavy	Total	
Morning	3 (20%)	0 (0%)	0 (0%)	4 (26.7%)	8 (53.3%)	15 (100%)	0.338
Afternoon	4 (26.7%)	1 (6.7%)	2 (13.3%)	2 (13.3%)	6 (40%)	15 (100%)	
Night	3 (20%)	1 (6.66%)	1 (6.66%)	1 (6.7%)	9 (6.7%)	15 (100%)	
Total	10 (22.2%)	2 (4.4%)	3 (6.7%)	7 (15.6%)	23 (51.1%)	45 (100%)	

Years of Work

Based on the results of the research that has been done, here is the distribution of the call center agents based on the years of work, as presented in Table 1. Based on Table 1, it can be seen that of the 45 agent call center respondents of the customer service company in Surabaya, most of the respondents had a working period of more than 1 year to 3 years. Meanwhile, at least 6 respondents had a working period of less than or equal to 1 year.

Work Shift

The work shift variable in research on the call center agents in the Surabaya customer service company was categorized into three shifts namely morning shift, afternoon shift and night shift. The categorization of work time in each shift was as follows: morning shift at 06.00 – 14.00; afternoon shift at 14.00 – 22.00 and night shift at 22.00 – 06.00. Data retrieval that was carried out on 26-28 August 2020 obtained the results of the distribution of work shifts of the call center agents of the Surabaya customer service company, as shown in Table 2.

Based on Table 2, it can be seen that call center agents had the same proportion in the three work shifts. The call center agents in each shift worked for 7 hours with 1-hour break. The 1 hour break was divided into 3 sessions, specifically at the first 15 minutes, the second 15 minutes and 30 minutes

at the end of the break. The schedule of breaks for each call center agent was set among themselves. When the call center agent was leaving, he turned on the (AUX) button, so the phone would be given to another agent stand by on his desk and was not in the time of receiving any phone.

The arrangement of the work shift schedule of the call center agents in the Surabaya customer service company was 3-1, namely 3 working days and 1 day holiday. In the night shift, a person on duty was usually a male call center agent.

Job Stress

Based on the results of the research that has been done, the following is the distribution of the call center agents based on the job stress, as presented in Table 3. Based on Table 3, it can be seen that of 45 agent call center respondents of the Surabaya customer service company, 51.1% experienced very heavy work stress.

The results of cross tabulation between years of work and job stress are presented in table 4. Based on Table 4, it can be seen that majority of the call center agents with years of work less than or the same as 1 year experienced severe and very heavy job stress, with a percentage of 33.3%. On the other hand, the majority of the call center agents with years of work more than 1 - 3 years experienced very heavy job stress, accounting for 66.7%. Meanwhile, the majority of the call center agents with more than 3 years of work had not experienced job stress and

heavy job stress, accounting for 33.3%. Thus, it can be concluded that the call center agents with years of work more than 1-3 years were more susceptible to the occurrence of very heavy job stress. Moreover, the result of the data analysis using a contingency coefficient test was 0.436, meaning that there was a correlation between years of work and moderate job stress.

The Correlation of Work Shifts with Job Stress

The results of the cross tabulation between work shifts and job stress are presented in Table 5. Based on Table 5, it can be seen that the majority of the call center agents with the morning, afternoon or the night shifts experienced very heavy job stress with a percentage of 53.3% for the morning shift, 40% for the afternoon shift and 60% for the night shift. Thus, it can be concluded that the call center agents who worked in the morning shift, afternoon shift and night shift were all vulnerable to experiencing very heavy work stress. The result of the data analysis using a contingency coefficient test was 0.338, meaning that the correlation between work shift and job stress was low.

DISCUSSION

In this research, the respondents were part of agent call center agents of the Surabaya customer service company, obtained through a simple random sampling technique. A total of 45 respondents participated with varied individual characteristics. Some of the characteristics of respondents discussed in this study are the types of work and work shifts.

The years of work can be interpreted as the length of work of the call center agents starting from the first time they worked until the time this research was conducted. The years of work was grouped into 3 (three) categories, namely less than or the same as 1 year, more than 1 to 3 years and more than 3 years. The majority of respondents had a working period of more than 1 (one) up to 3 (three) years. The years of work was included in the medium category because in that time span the workers have passed the first employment contract as the agent call centers in the Surabaya customer service company. Meanwhile, the minority of respondents worked less than or equal to 1 (one) year. This range of years of work was included in a new category because in this time span the call center agents had not resolved their first contract. The first employment contract of the call center agents of the Surabaya customer service

company is counted for 1 year since the first year of work. Before the first contract expires, workers are given the same opportunity to extend work contracts. Workers who are still in the category of new workers generally have high enthusiasm in work and are still in conditions of curiosity and high learning interest (Marchelia, 2014).

Some workers have a similar number of years of work because usually the change of workers is done simultaneously. The longer a person's tenure is, the more experienced and expert he is. In addition, the task demands have a considerable influence on the commitment of the call center agents to the company (Zuraida, *et al.*, 2013).

The call center agents have considerable and stressful job demands, including receiving phone calls from customers, providing the right solution for the problems faced by customers related to the products purchased or consumed by the customers, looking for data and inputting customer data quickly and precisely, giving good feedback to customers, and giving all forms of information needed by customers in a formal language and in a calm manner. Moreover, work shifts can be interpreted as a strategy carried out by service providers to increase customer satisfaction maximally and sustainably, but at the same time they can be at risk of job stress on workers (Marchelia, 2014).

The arrangement for work shift of call center agents in the customer service company in Surabaya is in accordance with Law No. 13 of 2003 concerning Employment. In Articles 77, 78 and 79 a 3-1 shift system is specified, namely 3 working days and 1 day off. Moreover, the distribution of each shift in a work force is 7 hours per day, and if the working hours are summed up cumulatively for each shift with a 3-1 system, it has advantages both physiologically and socially.

Every call center agent who performs night shifts has a sleep compensation during the day and suffer from social impacts that may occur. This can have quite disturbing consequences for call center agents if they experience lack of sleep. Call center agents who feel dissatisfied with their work when faced with a night shift schedule will feel frequent drowsiness, which can make their concentration level decrease and make them less focused. This condition makes individuals not careful in doing work, which results in greater error rates. Furthermore, the results of their work do not produce maximum satisfaction, and the workers have the potential to experience job stress (Abdurrahman and Sulaksmono, 2013).

Work shift systems are placed in the male and female call center agents with a change of work shift using a 3-1 system. Yet, the distribution of night shifts in women is usually adjusted to the needs, or it can be said that it is rarely done. The night shift of the callcenter agents in the Surabaya customer service company is commonly applied to male call center agents.

Stress is a person's adaptive response to a stimulus that places excessive psychological or physical demands (Moorhead and Griffin, 2013). Thus, job stress can be interpreted as a response of workers against the surrounding stimulus which is excessive or stressful in their work.

Measurement of job stress in this study used the Dass-42 questionnaire that divided work stress into 5 categories, namely non-work stress, stressful work stress, moderate work stress, heavy work stress and very heavy work stress. Based on the results of the study, it is shown that the majority of respondents suffered from very heavy job stress, while the minority of respondents suffered from minor job stress. Job stress experienced by the call center agents can occur because of several factors including the intrinsic factor of work, the role of individuals in work organizations, working relationship, career development, organizational structure and work atmosphere as well as factors outside of work (Tarwaka, 2014).

However, it is also important to note that the average call center agents experienced moderate job stress. Based on 14 (fourteen) questions submitted, the most influential item on the stress scale indicators is the the feeling of irritability caused by trivial things that arise at work. An irritable feeling experienced by the call center agents is one of the psychological symptoms of job stress that are often found (Robbins and Coulter, 2018).

It could be that when a lot of pressure, both personal and external, occurs on the call center agents, the call center agents will have uncontrollable emotions. The pressure that call center agents cannot bear will be vented through anger (Aji, 2017).

The Correlation of Years of Work with Job Stress

An individual who has just entered the world of work certainly requires some adjustment or adaptation to his work. Some things that need adjustment in the scope of work range from work, social scope of work to all forms of regulations in the company.

Based on the results of the study, it is shown that call center agents with less than 1 year of work were vulnerable to work stress and very heavy work. This shows that every individual who has just started his career as a call center agent tends to experience very heavy job stress.

This is in line with research conducted by Ibrahim *et al.* (2016) which stated that new employees with years of work still need to adjust to the work environment and any work risks can occur. However, this is in contrast to research of Mahardhika (2017) which stated that the longer a person work, the higher the job stress he will experience. Therefore, it takes a long work tenure to achieve high productivity.

According to Zulkifli *et al.* (2020) short years of work makes a person have to adjust quickly to his job. In the first year, an employee must learn about work problems and get involved directly in the implementation of the job, which results in the workload and very high pressure of the employee in the first years of work, which can eventually trigger job stress.

The results of this study are in line with research conducted by Manabung *et al.* (2018) stating that one of the causes of new tenures experiencing work stress is the lack of experience of the field of work that is being worked on by the individual. In fact, longer years of work make individuals more resistant to pressure on their work. Employees with longer years of work tend to have better abilities and understanding of their jobs than workers who have a shorter work period (Zulkifli, Rahayu and Akbar, 2020).

Long years of work will tend to make an employee not have high work stress and feel more at home in a company. An employee who has long years of work has adapted to his work environment so that he feels comfortable with his job (Maydinar, Fernalia, and Robiansyah, 2020).

However, it cannot be denied that the disappointment and feeling of boredom can also affect workers who have worked for a long time in the same field, leading to work stress (Munandar, 2014). Research conducted by Ibrahim *et al.* (2016) suggested that a long work period creates routines at work, which in turn causes stress. Monotonous work routines lead to boredom, accompanied by the monotonous environment.

In addition, call center agents must always adapt to customers with different characters and traits every hour and every day so that call center agents

who have worked for ≥ 1 year often experience work stress (Abdurrahman and Sulaksono, 2013).

Ansori and Martiana (2017) argue that to overcome the problem of work stress due to long working tenure, it can be done by holding work rotations so that employees are not bored, and they can hold refreshing activities to relieve fatigue at work. The results of the data analysis show that the relationship between the work period and work stress was medium. The results of the data analysis in this study are in line with research that was conducted by Prasetya, Ma'rufi and Indrayani (2019) stating that there was a medium relationship between the work period and work stress. This is also related to the fact that work stress is not only caused by the work period, but also caused by other factors, namely social cognitive such as social support and social relationships with the surrounding environment involved.

According to Maydinar, Fernalia, and Robiansyah (2020), harmonious social relationships can reduce job stress on employees where there is a good social relationship between employees of one division with employees of another division. Positive working relationships are supported by resources and emotional support from the supervisors.

The Correlation of Work Shift with Job Stress

The results of data analysis using the contingency coefficient showed that there was a low-strong correlation between work shifts and job stress. The result of this research is in line with research of Maydinar, Fernalia, and Robiansyah (2020) which stated that there are other factors that are more powerful in influencing an individual who is prone to experiencing job stress, one of which is years of work. When employees usually have work shifts, over time they will feel less physically stressed. In addition, in the employee contract agreement, it has been stated about work shifts so that employees already know from the beginning and think that it is not a stressful problem for employees to work with work shifts.

This research was conducted on 45 respondents, 39 of whom (86.7%) had a work period of more than one year, which could strongly influence the relationship between work shifts and job stress. This is reinforced by Rhamdani and Wartono (2019) who stated that there was no correlation between work shifts and job stress because employees who became respondents were experienced employees who have adapted to high workloads and have maintained

harmonious relationships between other employees. Harmony in work relationships can reduce stress levels on employees.

Work shift is one of the factors of the task demands which is part of the job stress factor (Munandar, 2014). The work shift system imposed on call center agents in the Surabaya customer service company was divided into three shifts, namely morning shift, afternoon shift and night shift.

Based on research that has been made, it was found that the majority of call center agents with the morning, noon or the night work shifts experienced very heavy job stress. This is because customers during this Covid-19 pandemic period are working from home. Thus, in all morning, noon or night shifts the traffic contact with the call center agents is very high as they have to deal with complaints regarding customer problems related to products or information about the products from the Surabaya customer service company. This is in line with the statement of the National Consumer Protection Agency (2020) that there is a significant increase in consumer traffic so that there is a surge in complaints received by the agent call centers.

Other researchers also stated that workers at night shifts are vulnerable to job stress due to several factors. The most influential factors include the circadian rhythm which fluctuates from various body functions for 24 hours, lack of sleep, and even fatigue. When the human body is ergotrophic, it is the phase in which all organs or the functions of the human body are ready to carry out an action or activity. Meanwhile, at night humans experience a trophotropic phase, which is a phase when the body performs the process of renewal of energy reserves (Marchelia, 2014). This is relevant as many respondents who work in night shift experience heavy job stress.

Konoralma *et al.* (2013) said that working during night shifts will have an impact on the body's physiological response. Rest and sleep are basic needs that absolutely must be met by everyone. The body needs time and a regular sleep pattern to carry out the body's biological processes. If this is not met, the ability to concentrate and carry out daily activities will decrease, and it will be difficult for people to make decisions. Employees who work night shifts have to rest during the day when their bodies are normally awake and vice versa. Moreover, naps during the day are usually shorter than at night (about 2-3 hours shorter), and the quality of daytime

naps is not as good as the quality of nighttime sleep due to the influence of sunlight and environmental activities.

Meanwhile, according to Firmana and Hariyono (2013), severe stress was found in morning shift employees, while night shift employees only had mild stress and moderate stress. This is due to the high motivation given by the company's management to its employees as well as the wages given to employees which are very suitable for the work they do. Employees who work overtime or night shifts are also given wages according to their performance.

CONCLUSION

Call center agents who had years of work of more than 1 - 3 years were more likely to experience severe stress than other working groups. Based on the coefficient test, there was a moderate correlation between years of work and job stress, and there was a low correlation between work shifts and job stress. The majority of call center agents who worked in the morning, afternoon and night shifts were prone to experiencing very heavy job stress.

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REFERENCES

- Abdurrahman, M. and Sulaksmono, M. (2013) 'Hubungan Karakteristik Individu dan Shift Kerja Dengan Stress Kerja (Studi Pada Agent Contact Center PLN 123 PT. PLN (Persero) Distribusi Jawa Timur Site Surabaya Tahun 2013)', *The Indonesian Journal of Occupational Safety and Health*, 2(2), pp. 4–10.
- Aji, H. A. (2017) *Pengaruh Motivasi Kerja, Stress Kerja, Dan Keselamatan Kerja Terhadap Kinerja Karyawan Pada PT. Rosalia Indah Solo*. Undergraduate Thesis. Surakarta: Management Study Program, Faculty Of Economics And Business. Muhammadiyah Surakarta University.
- Ansori, R. R. and Martiana, T. (2017) 'Hubungan Faktor Karakteristik Individu Dan Kondisi Pekerjaan Terhadap Stres Kerja Pada Perawat Gigi', *The Indonesian Journal of Public Health*, 12(1), pp. 1–10.
- Basyiruddin, A. A. and Silvianita, A. (2018) 'Pengaruh Stres Kerja Terhadap Kinerja Karyawan "Studi Kasus di Divisi Call Centre Infomedia Buah Batu"', *e-Proceeding of Managemen*, 5(1), pp. 1152–1159.
- Dewi, T. H. and Handayani, A. (2013) 'Kemampuan Mengelola Konflik Interpersonal di Tempat Kerja Ditinjau dari Persepsi Terhadap Komunikasi Interpersonal dan Tipe Kepribadian Ekstrovert', *Jurnal Psikologi Undip*, 12(1), pp. 32–43.
- Firmana, A. S. and Hariyono, W. (2013) 'Hubungan Shift Kerja Dengan Stres Kerja Pada Karyawan Bagian Operation PT. Newmont Nusa Tenggara Di Kabupaten Sumbawa Barat', *Jurnal Kesehatan Masyarakat (Journal of Public Health)*, 5(1), pp. 45–48.
- Ibrahim, H., Amansyah, M. and Yahya, G. N. (2016) 'Faktor - Faktor yang Berhubungan dengan Stres Kerja pada Pekerja Factory 2 PT. Maruki Internasional Indonesia Makassar', *Al-Sihah :Public Health Science Journal*, 8(1), pp. 60–68.
- International Labour Organization (2013) *Keselamatan dan Kesehatan Kerja sarana untuk Produktivitas Pedoman pelatihan untuk manajer dan pekerja Modul Lima*. Jakarta: International Labour Organization.
- Jati, L. O. W. S. (2018) *Hubungan Beban Kerja Dan Masa Kerja Dengan Stres Kerja Pada Tenaga Kerja Bagian Weaving PT Kosoema Nanda Putra*. Undergraduate Thesis. Surakarta: Faculty of Health Sciences, Muhammadiyah Surakarta University.
- Konoralma, K., Moningka, L. and Palamani, S. (2013) 'Hubungan Shift Kerja Perawat Dengan Stres Kerja Di Ruang Irdm Blu Rsup Prof Dr. R. D. Kandou Manado', *Jurnal Ilmiah Perawat Manado*, 2(1), pp. 1–9.
- Mahan, T. et al. (2019) *Retention Report: Trends, Reason & a Call to Action*. Franklin: Work Institute.
- Mahardhika, T. S. (2017) *Hubungan Antara Masa Kerja Dengan Stres Kerja Pada Tenaga Kerja Bagian Winding Di PT. Iskandar Indah*

- Printing Textile Surakarta*. Undergraduate Thesis. Surakarta: Faculty of Health Sciences. Muhammadiyah University of Surakarta.
- Manabung, A. R., Suoth, L. F. and Warouw, F. (2018) 'Hubungan Antara Masa Kerja dan Beban Kerja dengan Stres Kerja pada Tenaga Kerja di PT. Pertamina TBBM Bitung', *Jurnal KESMAS*, 7(5), pp. 1–10.
- Marchelia, V. (2014) 'Stres Kerja Ditinjau Dari Shift Kerja Pada Karyawan', *Jurnal Ilmiah Psikologi Terapan*, 7(01), pp. 219–232.
- Mariyam, S. and Pertiwi, R. (2015) 'Faktor Determinan Tingkat Stres Dan Kelelahan Kerja Karyawan Universitas Negeri Yogyakarta Factors Influencing Job Fatigue and Stress Among Employees of Yogyakarta State University Ion Column Technic', *Jurnal Sains Dasar*, 4(2), pp. 114–121.
- Maydinar, D. D., Fernalia and Robiansyah, V. A. (2020) 'Hubungan Shift Kerja Dan Masa Kerja Dengan Stres Kerja Perawat Kamar Bedah RSUD Dr. M. Yunus Bengkulu Tahun 2019', *CHMK Nursing Scientific Journal*, 4(2), pp. 1–9.
- Moorhead, G. and Griffin, R. W. (2013) *Perilaku Organisasi: Manajemen Sumber Daya Manusia dan Organisasi*. Jakarta: Salemba Empat.
- Munandar, A. S. (2014) *Psikologi Industri dan Organisasi*. Depok: Universitas Indonesia Press.
- National Consumer Protection Agency (2020) *Consumers Need Transparency in Internet Data Usage*, National Consumer Protection Agency. Jakarta.
- Prasetya, D. I., Ma'rufi, I. and Indrayani, R. (2019) 'Determinan Stres Kerja Pada Penjaga Palang Pintu Rel Kereta Api Resmi Resort 9.6 Daerah Operasi IX Di Kabupaten Jember', *Jurnal Kesehatan*, 6(2), pp. 76–82.
- Puspasari, C. D. (2019) *The Relationship Between Mental Workload and Work Shift to Job Stress at Call Center Agent in PDAM Kota Surabaya*. Undergraduate Thesis. Surabaya: Universitas Airlangga.
- Ramadhania, N. and Parwati, N. (2015) 'Pengukuran Beban Kerja Psikologis Karyawan Call Center Menggunakan Metode NASA-TLX (Task Load Index) Pada PT. XYZ', in *Prosiding Seminar Nasional Sains dan Teknologi*. Jakarta, pp. 2–8.
- Reynolds, P. (2015) *Exploring Call Center Turnover Number*. Nashville: QATC.
- Rhamdani, I. and Wartono, M. (2019) 'Hubungan antara shift kerja, kelelahan kerja dengan stres kerja pada perawat', *Jurnal Biomedika dan Kesehatan*, 2(3), pp. 104–110.
- Robbins, S. P. and Coulter, M. (2018) *Manajemen*. Edisi Tiga Belas Jilid 1. Jakarta : Erlangga.
- Saridewi, H. (2019) *Pengaruh Kepribadian Dan Safety Management Practices Terhadap Safety Performance Pada Perawat Instalasi Gawat Darurat RSUD DR. Soetomo Surabaya*. Program Studi Kesehatan dan Keselamatan Kerja Fakultas Kesehatan Masyarakat Universitas Airlangga.
- Sudirman, R. (2019) *The Effect of Work Overload and Job Stress on Turn Over Intention in Call Center Employees (Study at Halo BCA Call Center Employees)*. Undergraduate Thesis. Jakarta: Bakrie University.
- Tarwaka (2014) *Ergonomi Industri – Dasar dasar Pengetahuan Ergonomi dan Aplikasi di Tempat Kerja Ergonomi Industri – Dasar dasar Pengetahuan Ergonomi dan Aplikasi di Tempat Kerja*. Surakarta : Harapan Press.
- Untari, D. and Faizal, M. (2019) 'Kinerja Call Center 108 Dalam Memberikan Informasi di PT Infomedia Bandung', *Jurnal Sekretari dan Manajemen*, 3(2), pp. 179–185.
- Wakhid, A., Budiati, E. and Rahmadani, F. (2020) 'Faktor Faktor Yang Berhubungan Dengan Stres Kerja Customer Service Di PT Telekomunikasi Indonesia , Tbk Lampung Tahun 2019', *Jurnal Ilmu Kesehatan Indonesia (JIKMI)*, 1(1), pp. 1–10.
- Zulkifli, Z., Rahayu, S. T. and Akbar, S. A. (2020) 'Hubungan Usia, Masa Kerja dan Beban Kerja Dengan Stres Kerja Pada Karyawan Service Well Company PT. ELNUSA TBK Wilayah Muara Badak', *KESMAS UWIGAMA: Jurnal Kesehatan Masyarakat*, 5(1), p. 46.
- Zuraida, L., Novitasari, D. and Sudarman, A. (2013) 'Pengaruh Kepemimpinan , Tuntutan Tugas , Beban Kerja Dan Kepuasan Kerja Terhadap Komitmen Organisasional Pada Pegawai PDAM Kota Magelang', *Jurnal Ekonomi dan Bisnis Islam*, VII(2), pp. 245–261.