

# Factors Associated with Job Stress among Employees in Food Service Department at Selected Private Hospitals in Malaysia

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## Abstract

The institutional food services industry is one of the most important sectors in Malaysia. In conjunction with institutional food services industry roles that provide services either in the government or public institutional operations, this industry has rapidly expanded in the coming years. Hence, the numbers of employees requested in this industry are getting high in demand in supplying services throughout the institutional operations. Despite the high demand in this industry, the exposure of job stress to the employee can cause turnover. Therefore, the purpose of this study is to examine the factors that contribute towards to job stress among food service employees at the private hospitals and identify the most influential factor that associated with the stress. This study also designed to examine the relationship between demographic characteristics of employees and job stress. The factors that used to conduct this study are workload, salary and working environment. This study used a quantitative approach through a self-administered survey questionnaire. 180 sets of questionnaires distributed to employees who were currently working in food service department at private hospitals. There were only 126 questionnaires returned and valid for further analysis. Data obtained were analyzed by using Statistic Packages for Social Science (SPSS) latest version. Based on the analysis, workload is the most influential factor of job stress and followed by the working environment as a second influential factor. Meanwhile, the salary factor did not significantly influence job stress among employees in this industry. Findings of study hopes will help the managers or owners in the institutional food service industry particularly the private hospitals to highlight these factors that lead to employee job stress. Additionally, the importance of this study is to encourage managers in focusing on these three factors in order to implement strategies to minimize stress at workplace.

**Keywords:** Institutional Food Services Industry, Job Stress, Workload, Salary, Working Environment

## Introduction

Institutional food services providers are one of the contributors in the food service sectors. Institutional food outlets are primarily located in public institutions such as hospitals,

long-term care facilities, and the educational sector such as universities and colleges and these public institutions increasingly require revenue streams (Martin & Andree, 2012). Aminuddin et al (2018) mentioned that food service has become an important concern in hospital settings, and in addition to medical equipment and medications, patients need a nutritious diet to heal. Institutional food service has a great responsibility to provide good-quality food and satisfy the nutritional needs and demands of its customers in order to minimize both prolonged stays in institutions and the high cost of malnutrition-related medical care (Hartwell et al., 2007; Englund et al., 2007; Evensen and Hansen, 2016).

Generally, in order to fully fill all the necessities in delivering excellent services in the institutional food services industry, a large amount of workforce is needed. According to Taspinar and Turkmen (2019), workforce is important in all industries; however, this importance is more for the service industry due to the fact that the achievements of the organizations significantly depend on the existence of the workforce. Foodservice department at the private hospitals in Malaysia no exception for this. Therefore, private hospitals need to ensure a continuous satisfaction among their employees (AlBattat & Som, 2013).

Additionally, workplace stress is a major factor in employee dissatisfaction and work stress is a major cause of anxiety (Yazicioglu & Kizanlikli, 2019). Employees' high levels of work stress influence the job performance and productivity and the employers would bear a large amount of health care costs (Krone et al., 1989; Lau et al., 2018). There are many job stressor among the workforce that can cause burnout and lead to turnover. Ramamurthi et al (2016) highlighted that the factors affecting the employee's intentions to leave include job stress, job dissatisfaction, low pay and lack of compensation packages, difficult work environments, poor task matching, bad working conditions, lack of organizational engagement and other aspects of disposition such as self-esteem, managerial support and influence of the personification.

Ramamurthi et al (2016) added, there are other indirect factors influencing employee satisfaction, such as lack of contact between workers and managers, lack of adequate training for rookies and a non-conducting work climate, economy, organizational efficiency, organizationally adjusted culture, job characteristics, unrealistic higher management standards, demographics and the person itself. Therefore, the previous statements show that there are so many factors in the workplace that can be predictors to the job stress among the workforce.

This study is conducted to examine the potential factors that can be associated with job stress among the food service employees in the institutional food service industry such as salary, workload and working environment. Among these job stressors might affect the employees and cause the low productivity and performances. It can have negative effects not only for the company but also industry. Thus, it is important to identify the most influential factor that causes job stress in order to overcome this problem.

### **Problem Statement**

Previous study highlighted that employee in Malaysia faced excessive workload and deprived of sleep with 51% experiencing from at least one dimension of work-related stress and 53% having less than seven hours of sleep over a period of 24 hours (Suresh, 2019). Lee (2011) clarified that in institutional food service operations, dietitians and head chefs as front-line employees, who typically take on management positions, are more prone to become overburdened and quickly exhausted since they must simultaneously satisfy competing needs

from businesses and consumers. Therefore, burnout and turnover can often be high within the hospital food service sector (Murphy et al., 2009; Deringer, 2019). Hafiz et al (2018) agreed that employees who work in the public health sector are among those with the highest stress level compared with people who work in other sectors. Working in institutional workplace, job stress can come from various sources such as the workplace itself, people around them and work-life balance (long working hours, working during holiday and split shift). Based on the study conducted by Azman (2015), stress in jobs is highly likely to occur among workers whose jobs require them to be on call or jobs that require them to spend more time at work than their normal working hours.

Furthermore, long-term stress has shown to be harmful to the well-being of both workers such as anxiety, depression, and health issues and organizations for instance increased turnover and sick leave, decreased productivity and morale, poor quality of service, and poor reputation (de Croon et al., 2004; Chiang et al., 2010). Labor turnover has become a critical problem for the hospitality industry in particular because of its "human factor" reliance (AlBattat & Som, 2013). Despite many previous researches has been conducted studies focusing on the job stress experienced by the employees in the food service sectors, there are limited of studies focusing on the institutional food service organization in Malaysia such as hospital, military, college, etc. As an overview, current study is conducted to examine the potential factors that contribute towards the job stress among the food service employees in the institutional food service industry in Malaysia in the area of private hospitals and to identify the major factor that lead to this problem. Furthermore, this study also examines the relationship between demographic characteristics and factors that contribute to job stress. In addition, this study will focus only the institutional food service industry that is private hospital, as there is a limited number of past studies that focus on this organization yet.

### **Research Objective**

This study aimed to identify possible factors that associate with employees' job stress within Food Service Department at selected Private Hospital in Malaysia. The objectives are:

- i. To examine the potential factors that contribute towards the job stress among the food service employees at the private hospitals.
- ii. To identify the most influential factor that causes job stress among the food service employees at the private hospitals.
- iii. To examine the relationship between employees' demographic characteristics and job stress.

### **Research Question**

- i. What are the influencing factors that cause job stress among the food service employees at the private hospitals?
- ii. What is the most influencing factor of job stress among the food service employees at the private hospitals?
- iii. How does socio-demographics influence stress among employees in food service department at the private hospitals?

**Literature Review***Definition of Job Stress*

Job stress is the negative physical and emotional responses that arise when the task expectations do not correlate with the worker's abilities, resources or needs. According to Deng et al (2019), employment stress can be characterized as a response of an individual's external environmental stimuli. Job stress is an extension of overall stress, primarily due to work activities, workplace, job requirements, role conflict or skills of the worker (Jou et al., 2013; Sorana & Balkanb, 2014). Job stress is such a serious factor worldwide that affects the physical and mental health of the employee and the well-being of the organisation (Mukosolu et al., 2015; Hamizi, 2017). Stressful organizational factors such as workplace discrimination, lack of job security, over-sensitivity to getting things done properly excessive workload, lack of feedback, frequent relocation and misguided aspirations, economic challenges and issues, long hours of work are stressful factors within the organization (Amiri et al., 2019). Job stress typically arises when physical, mental and emotional needs did not easily achieve. Job stress among the employees can be found almost in every workplace. Job stress arise from many sources at the workplace and influence the employee's performances which can contribute to job leave intention. According to Sohail and Abdul Rahman (2015), it is generally believed that stress at the workplace has adverse effects on employee health and on organizational health in all employment sectors. Based on the study conducted by Ahsan et al (2009), usually people that are facing job stress in high percentages will not feel satisfied with their job therefore; they feel unhappy working in the company. Thus, this condition will clearly bring negative effects to the organization as well.

While facing the job stress, employees have two views either positive or negative. By controlling their job stress in a positive way, employees might get benefits and become more motivated to do their job. However, if they think in a negative way, they will become low in self-esteem and reduce their job productivity. These negative signs include anger, fear, anxiety, depression and other work-related problems (Ramamurthi et al., 2016). A study in the United Kingdom indicated that the most staff were dissatisfied with the new system, where they had to work longer hours and deal with excessive workload while meeting production goals and deadlines simultaneously (Ahsan et al., 2009).

Job stress also can contribute to health problems that can cause job dissatisfaction. Based on the previous researches, psychological conditions such as emotional and cognitive difficulties, depression, anxiety, inadequate awareness, loneliness and mental disorder are classified into three major categories (Amran et al., 2019; Magnavita, 2000; Hadadian & Zarei, 2016). Physical signs such as elevated heart rate, high blood pressure, respiratory disease, digestive disorders, fatigue and immune system deficiency (Hadadian & Zarei, 2016) and behavioral symptoms such as absenteeism (Bongers et al., 2002; Hadadian & Zarei, 2016), alcohol, drug and tobacco use (Hurrell & McLaney, 1988; Hadadian & Zarei, 2016).

**Institutional Food Service**

Historically, institutional food service was viewed as a non-profit supplementary operation to a 'captive market' within broad entities with other primary functions (Khan, 1991; Bright et al., 2009). Institutional food services are businesses that deliver meals to places like schools, hospitals, correctional facilities, public and private cafeterias, nursing homes, daycare centers, and colleges and universities. Additionally, institutional food services are one of the food service providers that delivers food to their client groups in facilities that

can be located in schools, hospitals, jails, children's and senior care centers and also catering services.

In addition, the objective of food service institutions is maintaining appropriate food preparation standards which will result in a high-quality product, served in the best possible condition and manner (Kumar et al., 2013). Westray (2012) clarified that institutions are large food demanders which are institutional foodservice operations including schools, universities, hospitals, prisons, childcare, and long-term care facilities. The hospital foodservice services handle the dry and night rations supplied to the employees working the night shift, give meals to all in-patients through outsourcing, and keep an eye on the meal services provided to patients, paramedics, and on-call doctors. The catering officers will keep an eye on these services. The central portering service will administer the meal distribution while on the other hand, the kitchen will be used for cleaning the trolleys and washing dishes.

### **Perceived Stress Scale (PSS)**

The perceived stress scale (PSS) is one of the most widely implemented strategies of psychological stress assessment (Cohen et al., 1983). Vallejo et al (2018) added that study respondents were asked to assess tension based on previous month before self-report time. As reported by Siang et al. (2016) Perceived Stress Scale (PSS) was translated into over 25 languages and validated among various populations all over the world. Perceived Stress Scale (PSS) is a simple and functional questionnaire that has been developed with proper psychometric properties (Khaili et al., 2017). Reis et al (2019) explained that Perceived stress scale (PSS) is a common instrument for measuring the degree to which people perceive conditions in their lives as being extremely uncontrollable and overloaded. The objective of PSS was created to determine stress from an emotional perspective, diverging from the widely used measures of life events at the time (Ribeiro et al., 2020). Lee (2012) mentioned that the initial measuring tool was a 14-item scale (PSS-14) created in English version (Cohen et al., 1983), with seven positive items and seven negative items classified on a 5-point Likert scale; after five years the implementation of the PSS-14 Lee added that it was shortened to 10 items (PSS-10) using data-based factor analysis from 2,387 United State of America citizens.

### **Working Environment**

Impoverished working conditions such as packed with people working environments, noise, heat, strong smells and hazardous situations are considered potential resources of stress at the hospital (Cavalheiro et al., 2008; Moustaka & Constantinidis, 2010). According to a previous study conducted by Smith (2019), initial univariate analyses showed that people who indicated more regular exposure to noise had more injuries / cognitive failures, more stress at work, poor general health, and more anxiety and depression. Bokotic and Babic (2013) mentioned that just those employees which fulfill requirements in the terms of age, sex, credentials, fitness, physical and mental fitness and psycho-physiological and psychological capabilities that perform jobs with difficult working conditions. Amran et al (2019) indicated that employees who are more satisfied with the work environment will significantly improve their performance, thus reducing job stress.

Moreover, the workers must be relaxed with their working atmosphere so that they can be successful (Al-Anzi, 2009; Rahim et al., 2014). At team level, as time pressure rises, it allows participants to focus on the most important tasks and emphasizes completing the task as quickly as possible, as it affects both their engagement and job efficiency, while reducing work

quality at the same time (Murali et al., 2018). The work environment problems found with respect to stress and well-being threats can be categorized as job-related and social and hierarchical work-related problems. Others intrinsic to the job comprise extended periods of time, heavy workload, time pressure, complicated or challenging undertakings, lack of breaks, restricted mobility and poor physical working conditions (Nordin et al., 2020).

### **Salary**

In general, employees must be satisfied with their overall salary, as this can affect their attitudes and behaviors. Amiri et al (2019) stated that his perception of providing for equal pay and benefits also works well in terms of job satisfaction. Zhao and Ghiselli (2015) explain that labor costs seem to be the biggest expense hotels, restaurants and other related industries have to manage. Zhao and Ghiselli added that their pay fluctuates with the seasonal market for those paying on an hourly basis and is less consistent. bonuses they earn are insufficient, which in effect poses a challenge to their self- esteem or socio-economic status. Many benefits such as bonuses and appreciation are also assumed by employees to improve morale and job satisfaction of the employees. The recompense is a tool for inspiring employees to work harder and better (Asaari et al., 2019). Some research in the hospitality industry have shown that payment dissatisfaction is one of the key causes of turnover (Pavesic & Brymer, 1990; Pizam & Ellis, 1999; Yazicioglu & Kizanlikli, 2019).

### **Workload**

Workload or overwork is defined as: long hours of work, unreasonable job requirements, various job duties, pushing for working more than usual time, less leisure opportunities, pressure on chasing work datelines, track efficiency, more demands and no replacement of employees on their off days (Sohail & Abdul Rehman, 2015). Besides, it is understood that the problems of huge workload and job-related stress seemed to increase on a regular basis and virtually each of the employee seemed to be subjected to this question of workload without exception of their history or industry (Murali et al., 2018). Has heavy responsibilities, excessive workload and timelines which seem incredibly difficult to meet can harm job satisfaction even for the most devoted and committed employees (Munjial et al., 2019). Sampson and Akyeampong (2014) reported that various researches have shown that individuals working in the hospitality industry are showing signs of stress and work overload because of the requirements placed by organizations that will cause pressure to the employees. Having stress in the workplace can be described as unwillingness to work and continuous strain (that is, no effort is enough) with the overarching symptoms of physiological, emotional and behavioral stress (Ahsan et al., 2009).

### **Conceptual Framework**

The study variables are indicated in the conceptual framework in Figure 1. The conceptual framework of possible factors that associated with job stress among employees in food service department of private hospital within Klang valley, Malaysia.

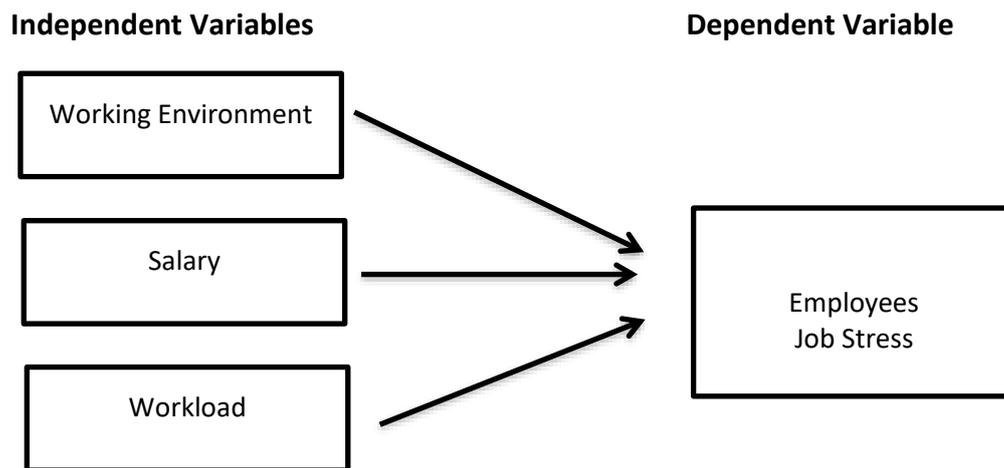


Figure 1: Conceptual Framework

### Methodology

This study employed quantitative approach and sample of this study obtained by applying convenience sampling design. The primary goal of convenience sampling is to collect data from respondents who are readily accessible to the researchers (Etikan, 2016). Quantitative research also designed to effectively ensure objectivity, generalizability, and reliability added that this should select from the population of interest a broad and representative sample, assess the behavior and characteristics of that sample, and attempt to build generalizability (Noordin and Masrek, 2016).

The data collection process was done successfully with the help from the staff at the food service department at the private hospitals. The staff who acted as the person in charge for the food service department, was responsible for connecting researcher with the respondents at his department and arranged suitable time for the employees involved to answer the questionnaire. This is because respondents for this study were mostly busy with their work and suitable time to answer the questionnaire was a very important aspect in order to get an accurate and reliable answer. Face-to-face sessions were also not recommended by the person in charge because it will disturb the respondent's job duty and task. Initially, permission has been granted from the hospital management prior to data collection. Finally, a total of 180 self-administered questionnaires able to be distributed to the employees who were currently working in the food service department at private hospitals in Klang Valley, Malaysia. After the screening process there were only 126 questionnaires returned and valid for further analysis.

### Questionnaire Design

In this study, a self-administered questionnaire was devised. The social survey instrument was used to collect the data from a large group of respondents where the same information and procedure were used. The purpose of the questionnaire designed to examine the possible factors that influence job stress among employees in the institutional food industry. Hence, the questionnaire was adapted and modified based on previous study done by (Hamizi, 2017). The questionnaire was in English and it has been translated to Malay language to further assist respondents for clarification in answering the questionnaire. There are four parts in this questionnaire and respondents need to answer all questions.

## Results

### Demographic Profiles

Demographic analysis for demographic profile of the respondents consists of several category such as gender, age, race, marital status, etc. Based on the table 2 below, number of female respondents was 69 (54.8%) which higher than number of male respondents which was 57 respondents (45.2%). Majority of respondents age group for this research was between 20-29 years old (77.8%) followed by age group of 30-39 years old (15.1%). In term of race group, a large number of respondents were Malay 109 (86.5%) followed by Indian with 12 respondents (9.5%), Chinese 3 respondents (2.4%) and other race with 2 respondents (1.6%). For the marital status, most of the respondent's status was single with the number of respondents of 89 (70.6%) followed by respondents with married status is 34 (27.0%).

For the highest educational level category, 50 respondents (39.7%) held diploma, and 27 respondents (21.4%), with Malaysian Certificate of Education (SPM) and followed by 26 respondents with certificate (20.6%). Majority of respondents that participated in this research were a full-time staff with the number of the respondents 113 (89.7%). There were only 8 respondents (6.3%) were part time staff and the least respondents were contract staff with 8 respondents (4.0%). In term of working experience, 11 respondents (8.7%) with less than 6 month of working experience, 7 respondents (5.6%) with 5-7 years of working experience and 5 respondents (4.0%) with more than 7 years of working experience. As for the working experience in current department, 38 respondents (30.2%) have 1-2 years and 2-4 years of working experience, 25 respondents (19.8%) with 6-12 month of working experience, 18 respondents (14.3%) with less than 6 month of working experience and 7 respondents (5.6%) with 5-7 years of working experience in current department. Lastly, majority of respondents 111 (88.1%) worked about 8 hours in a day.

Table 1

#### *Demographic profile of the respondents*

Variables	Category	Frequency	Percentages (%)
Gender	Female	57	45.2
	Male	69	54.8
Age	Below 20 years	7	5.6
	21-30 years	98	77.8
	31-40 years	19	15.1
	41-50 years	2	1.6
	51-60 years	0	0.0
Race	Malay	109	86.5
	Chinese	3	2.4
	Indian	12	9.5
	Others	2	1.6
Educational level	SPM	27	21.4
	Certificate	26	20.6
	Diploma	50	39.7
	Bachelor degree	21	16.7
	Master Degree	1	0.8
	Others	1	0.8
Marital status	Single	89	89.7
	Married	34	6.3

	Others	3	4.0
Employment status	Full-time	113	66.8
	Part-time	8	33.2
	Contract	5	
Working experience in current department	Less than 6 months	18	14,3
	6-12 months	25	19.8
	1-2 years	38	30.2
	2-4 years	38	30.2
	5 – 7 years	7	5.6
	Others	0	0
Average working hours	Less than 8 hours	2	1.6
	8 hours	111	88.1
	10 hours	9	7.1
	More than 10 hours	4	3.2

Note: N= 126

### Identification of Factors that Associated with Employees' job Stress

Table 2 presented the mean score and standard deviation for the independent variables (working environment, salary and workload and dependent variable (employee's job stress). From the table below showed that salary has the highest mean score with 4.23 followed by working environment with 4.10 and workload with 2.93.

Table 2  
Descriptive Statistics for the variables

	N	Mean	Std. Deviation
Working environment	126	4.10	.59
Salary	126	4.23	.60
Workload	126	2.93	.60

Scale: 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

### Relationship between Factors and Employees' Job Stress

With regards to the relationship between factors and employees' job stress, the Pearson Correlation analysis was conducted. Based on results in table 3, the correlation of each independent variable involved in this study which are the working environment, salary and workload were significant at 0.01 levels (2-tailed). As the result shows that the values for all independent variables are 0.025, 0.009 and 0.000. This value indicates that there was a statistically significant correlation between the working environment, salary and workload towards employees' job stress since the value of significance (2-tailed) are less than .05.

Meanwhile, the Pearson's Correlation  $r$  value between the job stress and the independent variables were stated in the table 3. Firstly, the Pearson's  $r$  value between the job stress and the working environment shows that there is negative correlation since the value of Pearson's  $r$  is  $-0.200$ . Secondly, the Pearson's  $r$  value between the job stress and the salary is  $0.231$ . This value emphasizes that there is a positive correlation between the dependent variable and independent variable. However, since the value of Pearson's  $r$  is closed to 0, there is a weak positive correlation between the job stress and the salary. Lastly,

the Pearson's  $r$  value between the job stress and the workload is 0.873. Since the value of Pearson's  $r$  is close to 1, it is shown that there is a strong relationship between the variables. This highlight that between the job stress and the workload there is a strong positive correlation.

Table 3  
*Correlation between Factors and Employees' Job Stress*

	Variable	Job Stress	Environment	Salary	Workload
<b>Job Stress</b>	Pearson	1	-.200*	.231**	.873**
	Correlation				
	Sig. (2-tailed)		.025	.009	.000
	N	126	126	126	126
<b>Environment</b>	Pearson	-.200*	1	.268**	-.108
	Correlation				
	Sig. (2-tailed)	.025		.002	.228
	N	126	126	126	126
<b>Salary</b>	Pearson			1	.222*
	Correlation	.231**	.268**		
	Sig. (2-tailed)				.013
	N	126	126	126	126
<b>Workload</b>	Pearson	.873**	-.108	.222*	1
	Correlation				
	Sig. (2-tailed)	.000	.228	.013	
	N	126	126	126	126

\*Correlation is significant at the 0.01 level (2-tailed).

Furthermore, in order to predict factors associated with employees' job stress, the Multiple Linear Regression analysis was used. Multiple Regression analysis used in this study to examine the most influential factors that influence employees' job stress. Table 4 below shows the summary of regression done in this study. Referring to the analysed data, the R Square ( $R^2$ ) was 0.779. The result shows that 77.9% of variance in job stress was explained by the independent variables used in this study which are workload, working environment and salary. Since the value of  $R^2$  is more than 0.7, this value is generally considered to have a strong relationship between the dependent variable and independent variables in this study.

Table 4  
*Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.883 <sup>a</sup>	0.779	0.773	0.33505

a. Predictors: (Constant) Working environment, Salary, Workload

Based on table 5 below, there were 3 independent variables highlighted in determining the job stress of employees in the food service department at the private hospitals. According to the result, the variable of the workload and working environment had a significant p value of .000 and .004 which are the values were less than the acceptable significant p value of 0.005. Knowing that the p value obtained are .000 and .004 < .005, the result indicated that the workload and environment were significant predictors that influence the job stress of employees in the institutional. The result also showed that workload has stronger effect (Beta = 0.8) on job stress compared to salary (Beta = 0.8) and working environment (Beta = -2.903).

*Table 5*  
*Coefficients*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	0.016	0.293		0.056	0.955
WE	-0.155	0.053	-0.13	-2.903	0.004
S	0.093	0.053	0.8	1.737	0.085
W	0.991	0.052	0.841	18.958	0.000

*Dependent Variable: Employee Job Stress*

### Discussion and Conclusion

Overall, findings obtained from this study indicated that respondents agreed that the predicted variables that are workload, salary and working environment have significant relationship with employees' job stress. Prediction on these three variables were reasonable and accurate because the Multiple regression analysis result revealed about 77.9% of variance in foodservice department were explained by these three variables – working environment, salary, workload and thus can be highlighted to minimize job stress.

To answer research question one, a Pearson's Correlation Analysis was done to determine the factors that influence job stress among employees in the institutional food service industry. Based on the results, findings of the correlation for the variables found that all variables that are working environment, salary and workload were statistically significant at 0.01 levels (2-tailed). This could be explained by the fact that workers in food service department at the private hospital did not receive favorable salary from companies, worked in unattractive working environment and were assigned a lot of work duties. Additionally, result of Pearson's r value between the job stress and the workload stated the relationship was strong and positive (0.873). The outcome of this study's component was discovered to be comparable to the outcome of (Karatepe's Earlier Investigation, 2011). He claimed that there was a statistically significant association between employee job stress and the job stressor, which is workload. In addition, another similar finding from a prior study by Hsieh et al (2013) found a strong association between workload and occupational stress in foodservice companies with high work-load requirements.

On the other hand, to achieve research question two, Multiple Linear Regression Analysis was done to determine the most influential factors that influence job stress among employees in the institutional food service industry. Results obtained from the analysis indicate that workload is the most influential factor of job stress. Finding of this study similar with previous studies. A number of researchers have supported a positive relationship

between workload, stress and turnover intention (Brannon et al., 2007; Qureshi et al., 2013; Amran et al., 2019; Ghazali et al., 2020). Employees worked in the food service department at the private hospitals have higher expectation on tasks and carried heavy workload (Nordin et al., 2020) Employees expected to supply healthy food that satisfies the normal and unique nutritional requirements of each hospital patient in accordance with their disease-related conditions.

Finally, to answer research question three, Independent T-test, One-way ANOVA and Perceived Stress Scale (PSS) analysis was employed to determine how did gender, employee's department and marital status influenced the employee to have job stress in the food service department at a private hospital. For Independent T-test analysis, male respondents mean score was 2.7632 while female respondents achieved 2.6268. Additionally, results obtained from the Independent T-test and Perceived Stress Scale (PSS) analysis shows that male respondents perceived "rarely" to "sometimes" stress based on the Likert scale and obtained the highest mean score of job stress.

For the department they worked, Independent T-test and Perceived Stress Scale (PSS) analysis results showed that non-managerial department respondents obtained higher mean score than managerial department respondents. For Independent T-test analysis non-managerial department respondents acquired 2.7852 mean score and managerial department respondents acquired 2.6268 mean score. For Perceived Stress Scale (PSS) analysis, non-managerial department respondents acquired 3.1689 while managerial department respondents acquired 2.8696. Therefore, results showed that non-managerial department respondents not only have the highest job stress mean score but also perceived "sometimes" to "fairly often" stress. Hence, there was a significant difference in the job stress and perceived stress scale for managerial and non-managerial departments since the p-value for both analyses were less than .05. One-way ANOVA analysis was conducted in order to analyze the difference on marital status groups. Results stated the highest mean score was dominated by the single group with mean score of 2.7879 and as for the married respondents, the mean score was 2.4926. Thus, results showed that single respondents not only perceived "sometimes" to "fairly often" stress for the previous months but also indicated high job stress compared to married respondents.

### **Limitations and Recommendations**

The researcher is aware that this study has some limitations. Although efforts were made throughout this study, there are few limitations that have been encountered. The major limitation that encountered in conducting this study was the Covid-19 pandemic. This pandemic had caused the Malaysian movement control order (MCO) started from 18th March 2020 which this study planned also affected. Therefore, the planning to distribute questionnaires by hand need to be cancelled and changed to offline method. Finally, the online survey was conducted, but the cooperation given by the respondents were very low. On the other hand, despite the fact that the study's scope was broad and included all private hospitals in the Klang Valley, the company's strict policies made it difficult for respondents to participate. Respondents subjected to shift working hours and very busy with their workload. Due to this constraint, some of the incomplete questionnaires were returned to the researcher.

Recommendations are needed for this research in order to improve the weaknesses that occurred to ensure better research is developed in the future. One of the

recommendations of this research is to generalize the target population of the study to other sectors. Considering current study only focusing on private institutional food service establishments and the research area is within Klang Valley. Hence, it would be possible to develop better research by expanding the research area and include the target population within the public institutional food service establishments. This study also suggests using bigger sample sizes in future research. This is due to the fact that a larger sample size will increase the accuracy of the result. By applying a large sample size more reliable results with greater precision will be obtained and more closely approximate the population of the institutional food service industry. Last but not least, another suggestion is an application of mix method approach for future research. By applying a mix method approach, researchers may be able to gather more rich data and gain deeper understanding. Lastly, other possible variables could be further explored to represent different views, attitude and thoughts on employees' job stress.

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**References**

- Ahsan, N., Abdullah, Z., Fie, D. Y. G., & Alam, S. S. (2009). A study of job stress on job satisfaction among university staff in Malaysia: Empirical study. *European journal of social sciences*, 8(1), 121-131.
- Amiri, M., Singh, M. M., and Sabbarwal, S. (2019). Role of Job Stress on Job Satisfaction. *International Journal of Management Studies VI* (4):57-60
- AlBattat, A. R. S., & Som, A. P. M. (2013). Employee dissatisfaction and turnover crises in the Malaysian hospitality industry. *International Journal of Business and Management*, 8(5), 62.
- Aminuddin, N. F., Vijayakumaran, K. R., & Abdul Razak, S. (2018). Patient Satisfaction With Hospital Food service and its Impact on Plate Waste in Public Hospitals in East Malaysia. *Hospital Practices and Research*, 3(3), 90–97. <https://doi.org/10.15171/hpr.2018.20>
- Amran, F. W., Ghazali, H., & Mohamad, S. F. (2018). Perceived Level of Stress Among Casual Dining Restaurant Employees in Klang Valley, Malaysia. *International Journal of Modern Trends in Social Sciences*, 1(2), 09-14.
- Basias, N., & Pollalis, Y. (2018). Quantitative and qualitative research in business & technology: Justifying a suitable research methodology. *Review of Integrative Business and Economics Research*, 7, 91-105.
- Birdir, K., Tepeci, M., & Saldamli, A. (2003). *Job Stress in Hospitality and Tourism Organizations: Sources, Consequences and Management*.
- Bonett, D. G., & Wright, T. A. (2015). Cronbach's alpha reliability: Interval estimation, hypothesis testing, and sample size planning. *Journal of Organizational Behavior*, 36(1), 3-15.
- Bokotic, D., and Babic, T. (2013). Relationship between working conditions and job satisfaction: The case of creation Shipbuilding Company. *International Journal of business and social science*, 4(2), 206-214.

- Brannon, L., and Feist, J. (2007) Health Psychology. An Introduction to Behaviour and Health. 6th Edition, Wadsworth, UK.
- Bright, S. N., Kwon, J., Bednar, C., & Newcomer, J. (2009). Institutional foodservice benchmarking: survey of administrators' attitudes and practices in the USA. *Journal of foodservice*, 20(3), 123-132.
- Brooks, J., Reed, D. M., & Savage, B. (2016). Taking off with a pilot: The importance of testing research instruments. In *ECRM2016-Proceedings of the 15th European Conference on Research Methodology for Business Management": ECRM2016. Academic Conferences and publishing limited* (pp. 51-59).
- Castellan, C. M. (2010). Quantitative and qualitative research: A view for clarity. *International journal of education*, 2(2), 1.
- Cavalheiro, A. M., Moura, D. F., and Carlos, J. A. (2008). Stress in nurses working in intensive care units *Revista Latino-Americana de Enfermagem* 16(1):29-35
- Cardello, A. V., Bell, R., & Kramer, M. (1996). Attitudes of consumers toward military and other institutional foods. *Food Quality and Preference*, 7(1), 7–20.
- Chiang, F. F. T., Birtch, T. A., and Kwan, H. K. (2010) The Moderating Roles of Job Control and Work-Life Balance Practices on Employee Stress in the Hotel and Catering Industry. *International Journal of Hospitality Management*, 29, 25-32.  
<https://doi.org/10.1016/j.ijhm.2009.04.005>
- Cheng, J. C., & Yi, O. (2018). Hotel employee job crafting, burnout, and satisfaction: The moderating role of perceived organizational support. *International Journal of Hospitality Management*, 72, 78-85.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 385–396.
- De Croon, E. M., Sluiter, J. K., Blonk, R. W. B., Broersen, J. P. J., & Frings Dresen, M. H. W. (2004). Stressful Work, Psychological Job Strain, and Turnover: A 2-Year Prospective Cohort Study of Truck Drivers. *Journal of Applied Psychology*, 89, 442-454.
- DeSantis, V. S., & Durst, S. L. (1996). Comparing job satisfaction among public- and private-sector employees. *The American Review of Public Administration*, 26(3), 327-343.
- Deringer, T. D. (2019). A Correlational Study of Hospital Food Service Employee Engagement and Quality Outcomes in United States Acute Care Hospitals (Doctoral dissertation, The Chicago School of Professional Psychology).
- Etikan, I. (2016). Comparison of Convenience Sampling and Purposive. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4.
- Engelund, E. H., Lassen, A., & Mikkelsen, B. E. (2007). The modernization of hospital food service—findings from a longitudinal study of technology trends in Danish hospitals. *Nutrition & Food Science*, 37(2), 90–99.
- Edwin, V. T., & Hundley, V. (2002). The importance of pilot studies. *Nursing Standard* (through 2013), 16(40), 33-6. Retrieved from  
<https://search.proquest.com/docview/219814873?accountid=27932>
- Evensen, K. B., & Hansen, H. (2016). Cooperation and information sharing in institutional food chains. *British Food Journal*, 118(10), 2388–2403. <https://doi.org/10.1108/BFJ-01-2016-0011>
- Ghazali, H., Amran, F. W., & Mohamad, S. F. (2020). Determinants of Job stress among Non-Managerial Restaurant Employees in Klang Valley, Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 10(3), 811–822.

- Hadadian, J., and Zarei, J. (2016). Relationship between Toxic Leadership and Job Stress of Knowledge Workers. *Studies in Business and Economics* 11(3)
- Hamizi, N. H. (201). The Effect of Stress towards the Employees' Performance: A case of Institutional Food Service Industry. Unpublished thesis
- Hartwell, H., Edwards, J. S. A., & Beavis, J. (2007). Plate versus bulk trolley food service in a hospital: comparison of patients' satisfaction. *Nutrition*, 23, 211– 218.
- Hsieh, Y., Apostolopoulos, Y., and Sonmez, S. (2013): World at Work: Hotel Cleaners, *Occupational and Environmental Medicine*, 70(5), 360-364.
- Hoogendoorn, W. E., Bongers, P. M., and De Vet, H. C. (2002) High Physical Work Load and Low Job Satisfaction Increase the Risk of Sickness Absence Due to Low Back Pain: Results of a Prospective Cohort Study. *Occupational & Environmental Medicine*, 59, 323-328. <https://doi.org/10.1136/oem.59.5.323>
- Jou, R., Kuo, C., and Tang, M. (2013). A study of job stress and turnover tendency among air traffic controllers: The mediating effects of job satisfaction. *Transportation Research Part E: Logistics and Transportation Review*, 57, 95–104.10.1016/j.tre.2013.01.009
- Karatepe, O. S., and Tizabi, L. Z. (2011). Work-Related Depression in the Hotel Industry: A Study in the United Arab Emirates. *International Journal of Contemporary Hospitality Management*, 23(5):608-623.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of management journal*, 33(4), 692-724
- Kumar, R., Kathiravan, T., Rajamanickam, R. & Nadasabapathi, S. (2013). Institutional Foods Development Perspectives Review. *Food and Nutrition Sciences*, 2013, 4, 873-878
- Krone C, Tabacchi M, Farber B. (1989). Manager Burnout. *Cornell Hotel and Restaurant Administration Quarterly*. 30(3):58-63. doi:10.1177/001088048903000317
- Lau, S. Y., Chua, C. Y., Yap, P., Tay, L. P., & Ma, K. L. (2018). Job stress, work- life balance and life satisfaction among hotel employees: Proactive coping as a moderator (Doctoral dissertation, UTAR).
- Lee, E. H. (2012). Review of the psychometric evidence of the perceived stress scale. *Asian nursing research*, 6(4), 121-127. <https://doi.org/10.1016/j.anr.2012.08.004>
- Lee, K. E. (2011). Moderating effects of leader-member exchange (LMX) on job burnout in dietitians and chefs of institutional foodservice. *Nutrition research and practice*, 5(1), 80-87.
- Martin, S. J., & Andrée, P. (2012). The " buy local" challenge to institutional foodservice corporations in historical context. *Journal of Agriculture, Food Systems, and Community Development*, 2(3), 161-175.
- Magnavita, J. J. (2000). *Relational therapy for personality disorders*. New York: John Wiley & Sons.
- Mukaka, M. M. (2012). A guide to appropriate use of correlation coefficient in medical research. *Malawi medical journal*, 24(3), 69-71.
- Moustaka, E., and Constantinidis, T.C. (2010) Sources and Effects of Work-Related Stress in Nursing. *Health Science Journal*, 4, 210-216.
- Mukosolu, O., Ibrahim, F., Rampal, L., & Ibrahim, N. (2015). Prevalence of job stress and its associated factors among Universiti Putra Malaysia staff. *Malaysian Journal of Medicine and Health Sciences*, 11(1), 27–38.

- Murali, S., Basit, A., & Hassan, Z. (2018). Impact of Job Stress on Employee Performance. *International Journal of Accounting and Business Management*. Vol. 5 (No.2), DOI: 24924/ijabm/2017.11/v5.iss2/13.33
- Noordin, S. A., & Masrek, M. N. (2016). Adopting the quantitative and qualitative methods in the social science research: Justifying the underpinning philosophical orientation. In *Proceeding of the 28th International Business & Information Management Association (IBIMA) Conference Seville, Spain, 9-10 November 2016*.
- Nordin, N. M., Mohamed, M., Ariffin, N. A., Hashim, N., & Zulkifli, N. A. E. (2020). The Provenance of Stress among Employees in Government Hospital in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 10(1).
- Pavesic, D. V., and Brymer, R. A. (1990). Job Satisfaction: What's Happening to the Young Manager, *Cornell Hotel and Restaurant Administration Quarterly*, 30 (4): 90-96.
- Qureshi, M. I., Iftikhar, M., Abbas, S. G., Hassan, U., Khan, K., & Zaman, K. (2013). Relationship between job stress, workload, environment and employees' turnover intentions: What we know, what should we know. *World Applied Sciences Journal*, 23(6), 764-770.
- Rahim, N. A., Ng, H. K., Biggs, D. M., & Boots, K. (2014). Perception of safety, physical working conditions and stress between Malaysia and United Kingdom. *International Journal of Business and Society*, 15(2), 321-338.
- Ramamurthi, K., Vakilbashi, A., Rashid, S. Z. A., Mokhber, M., & Basiruddin, R. (2016). Impact of job stressors factors on employees' intention to leave mediated by job engagement and dispositional factors. *International Review of Management and Marketing*, 6(3), 528-531.
- Reis, D., Lehr, D., Heber, E., & Ebert, D. D. (2019). The German version of the Perceived Stress Scale (PSS-10): evaluation of dimensionality, validity, and measurement invariance with exploratory and confirmatory bifactor modeling. *Assessment*, 26(7), 1246-1259. <https://doi.org/10.1177/1073191117715731>
- Santiago, R. P. H., Nielsen, T., Smithers, L. G., Roberts, R., & Jamieson, L. (2020). Measuring stress in Australia: validation of the perceived stress scale (PSS-14) in a national sample. *Health and quality of life outcomes*, 18, 1-16.
- Sampson, W. G., and Akyeampong, O. (2014) Work-Related Stress in Hotels: An Analysis of the Causes and Effects among Frontline Hotel Employees in the Kumasi Metropolis, Ghana. *Journal of Tourism and Hospitality*, 3, 3-9. <https://doi.org/10.4172/2167-0269.1000127>
- Siang, L. C., Baharuddin, M. R., Abd Rahman, A., Shah, S. A., & Noor, S. B. M. (2016). A malay version of Perceived Stress screening scale (PSS-10): Psychometric evaluation among manufacturing industry workers.
- Singh, M. M., Amiri, M., & Sabbarwal, S. (2019). Role of Job Stress on Job Satisfaction. *International Journal of Management Studies*, 6(4), 57-60.
- Singh, P., & Loncar, N. (2010). Pay satisfaction, job satisfaction and turnover intent. *Relations industrielles/industrial relations*, 65(3), 470-490.
- Sohail, M. (2015). Stress and Health at the Workplace-A Review of the Literature. *Journal of Business Studies Quarterly*. Volume 6, Number 3
- Sorana, S., and Balkanb, M. O. (2014) Job Stress and Performance: The Mediating Effect of Emotional Intelligence. *Psychology, Business*
- Ram, S. B. (2019). Survey: Malaysian employees are overworked, sleep deprived, unhealthy. *New Straits Times*. Retrieved from

- <https://www.nst.com.my/news/nation/2019/11/539026/survey-malaysian-employees-are-overworked-sleep-deprived-unhealthy>
- Taşpınar, O., & Turkmen, E. (2019). The Effects of Job Satisfaction of Employees in Fast-Food Businesses on the Intention to Leave Job: The Case of Kırklareli. *Journal of Tourism and Gastronomy Studies*, 885, 897.
- Tzeng, G. H., & Chang, H. F. (2011). Applying importance-performance analysis as a service quality measure in food service industry. *Journal of Technology Management and Innovation*, 6(3), 106–115. <https://doi.org/10.4067/S0718-27242011000300008>
- Vallejo, M. A., Vallejo-Slocker, L., Fernandez-Abascal, E. G., & Mananes, G. (2018). Determining factors for stress perception assessed with the Perceived Stress Scale (PSS-4) in Spanish and other European samples. *Frontiers in psychology*, 9, 37.
- Westray, L. (2012). Serving as Suppliers to Institutional Foodservices: Supply Chain Considerations of Small and Medium Scale Specialty Crop Producers.
- Yazicioglu, I., & Kizanlikli, M. M. (2019). The effects of trait anxiety on the intention of leaving and burnout of restaurant employees. *Turizm Akademik Dergisi*, 5(1), 238-250.
- Zhao, X. R., & Ghiselli, R. (2016). Why do you feel stressed in a “smile factory”? *International Journal of Contemporary Hospitality Management*.