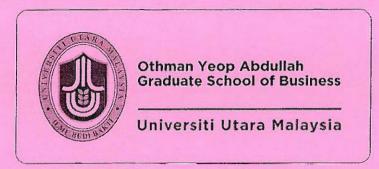
# EVALUATING THE IMPACT OF WORKLOAD, INTERPERSONAL AND PHYSICAL FACTORS TOWARD JOB STRESS

**NUR SABARINA ISHAK** 

MASTER OF SCIENCE MANAGEMENT AUGUST 2013



#### PERAKUAN KERJA KERTAS PROJEK

(Certification of Project Paper)

Saya, mengaku bertandatangan, memperakukan bahawa (I, the undersigned, certified that)
NUR SABARINA BINTI ISHAK (809459)

Calon untuk Ijazah Sarjana (Candidate for the degree of)
MASTER OF SCIENCE (MANAGEMENT)

telah mengemukakan kertas projek yang bertajuk (has presented his/her project paper of the following title)

# EVALUATING THE IMPACT OF WORKLOAD, INTERPERSONAL AND PHYSICAL FACTOR TOWARD JOBSTRESS

Seperti yang tercatat di muka surat tajuk dan kulit kertas projek (as it appears on the title page and front cover of the project paper)

Bahawa kertas projek tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan.

(that the project paper acceptable in the form and content and that a satisfactory knowledge of the field is covered by the project paper).

Nama Penyelia (Name of Supervisor)

DR. AMLUS IBRAHIM

Tandatangan (Signature)

**04 AUGUST 2013** 

Tarikh (Date)

#### PERMISSION TO USE

In presenting this project paper in partial fulfilment of the requirements for a postgraduate degree from Universiti Utara Malaysia, I agree that the university library may make it freely available for inspection. I further agree that permission for copying of this project paper in any manner, in whole or in part, for scholarly purpose may be granted by my supervisor(s) or, in their absence by the Dean of Othman Yeop Abdullah Graduate School Of Business. It is understood that any copying or publication or use of this project paper or parts thereof for financial gain shall not be given to me and to Universiti Utara Malaysia for any scholarly use which may be made of any material from my project paper.

Request for permission to copy or make other use of materials in this project paper, in whole or in part should be addressed to:

Dean of Othman Yeop Abdullah Graduate School of Business

Universiti Utara Malaysia

0601 0 UUM Sintok

Kedah Darul Aman

#### ABSTRACT

Job stress appraisal and coping were depending on the individual perceptions and acceptance. Generally, the level of stress is diverse within the individual depending on the individual self-perceived and the way of stress being handled. The consequences of job stress were due to various factors regardless profession and occupation. Therefore, this study is to evaluate the contribution of interpersonal, relationship, workload and physical factors toward job stress among the government employees. The survey was conducted in Putrajaya area and the populations were the government employees working in the Putrajaya government department. Number of samples was selected within the government department in Putrajaya according to the population size. Data was collected via survey and using questionnaires as the survey instrument. 200 sets of questionnaires have been distributed to the government employees in Putrajaya Federal Territory and 167 were obtained from the respondents. Respondents were asked to answer 5 pages questionnaires that divided into 4 sections consisting 39 items. Five-point Likert Scale was use in the questionnaire to represent the respondents' view for each item. Data was processed and analyzed using the IBM SPSS Statistic Data Version 20 software. The descriptive analysis was conducted to analyze the frequencies of the respondents' demographic profile and the range of mean and standard deviation. Correlation analyses were conducted to test the hypothesis between levels of job stress with all the factors to observe positive relationship between the variables. Ultimately, the results of the analysis indicate the positive correlation within all factors that have been evaluated (interpersonal, relationship; workload and physical) towards job stress level and all hypotheses tested were supported.

Keywords: job stress, relationship, workload, interpersonal, physical

#### **ABSTRAK**

Penilaian terhadap tekanan kerja dan kaedah mengatasi adalah bergantung kepada persepsi dan penerimaan individu. Secara umumnya, tahap tekanan adalah pelbagai dan ianya bergantung kepada bagaimana individu menghadapi dan mengendalikan tekanan tersebut. Tekanan kerja adalah disebabkan oleh pelbagai faktor dan ianya berlaku tanpa mengira jawatan dan profesyen. Oleh itu, kajian ini dijalankan untuk menilai sumbangan beberapa faktor seperti interpersonal, perhubungan, bebanan kerja dan fizikal terhadap tekanan kerja di kalangan kakitangan kerajaan. Kaji selidik telah dijalankan di Putrajaya dan populasinya terdiri daipada kakitangan kerajaan yang bekerja di jabatan kerajaan di Putrajaya. Bilangan sampel telah dipilih di kalangan kakitangan jabatan kerajaan di Putrajaya di mana bilangan ditentukan adalah bergantung kepada saiz populasi. Data dikumpulkan melalui kaji selidik dan menggunakan soal selidik sebagai instrumen kajian. Sejumlah 200 set soalan kaji selidik telah diedarkan kepada kakitangan kerajaan di Wilayah Persekutuan Putrajaya dan hanya 167 set diterima daripada responden. Responden telah diminta untuk menjawab soal selidik yang terdiri dari 5 halaman dan dibahagikan kepada 4 bahagian yang terdiri 39 item. Five Point Likert-Scale digunakan di dalam soal selidik bagi mewakili pandangan responden terhadap setiap item yg disertakan. Data telah diproses dan dianalisis dengan menggunakan perisian SPSS IBM Data Statistik Versi 20. Analisis deskriptif telah dijalankan untuk menganalisis frekuensi profail demografi responden serta julat min dan sisihan piawai. Analisis korelasi juga dijalankan untuk menguji hipotesis antara tahap tekanan kerja dengan semua faktorfaktor untuk melihat korelasi positif antara kesemua pembolehubah. Konklusinya, keputusan analisis telah menunjukkan korelasi positif dalam setiap faktor yang dinilai iaitu (interpersonal, perhubungan, bebanan kerja dan fizikal) terhadap tahap tekanan kerja dan hasil analisa yang dijalankan telah menyokong kesemua hipotesis.

Kata Kunci: tekanan kerja, interpersonal, bebanan kerja, perhubungan dan fizikal

#### **ACKNOWLEDGEMENT**

Alhamdullilah, praise and great gratitude to Allah SWT, the Most Merciful and the Most Compassionate in the first place for granting me an opportunity to undergone and complete my studies; without His blessing and consent indeed, I unable to gone through everything smoothly. Special thanks and gratitude to my supervisor, Dr Amlus bin Ibrahim for his encouragement, and who had been so tolerant and persistent on the meetings and deadlines in order to ensure the completion of this research. It is a pleasure to thank those who made this research possible; the head of department, government employees and the representatives who had participating and willing to assist in answering my questionnaire.

I would like to express my innermost gratitude to my beloved husband, Wan Mohd Said Bin Othman for his tremendous commitment, encouragement, sacrifice and being so considerate during my study. Special thank to my parent; Ishak Bin Mohamad and Zaliah binti Yusoh; and mother in law Raja Fatimah Raja Alang for their continuous prayer and support. To my siblings Nur Syuhadah and partner Umar Zakir, Nur Suhana, Amernurashid and Lukmanul Hakim for their kind assistance whenever needed and also I dedicate my gratitude to my superior; Mr Mansor Bin Berahim, for being so considerate during my study.

Deepest appreciation to all the lecturers in the faculty, thanks for the knowledge input and sharing. Last but not least to my dear friends; Zahuren, Azilah, Suhaimi, Hanie Bohlender and also to those who I never mention their name here, my deep and warm appreciation for the kindness, assistance and knowledge sharing during the journey of the study from the beginning till the end. May Allah SWT bless all of you, Aamiin.

Thank you.

# TABLE OF CONTENTS

CERTIFICATION OF WORK	ii
PERMISION TO USE	iii
ABSTRACT	iv
ABSTRAK	v
ACKNOWLEDGEMENT	vi
TABLE OF CONTENT	vii
LIST OF FIGURES	x
LIST OF TABLES	xi
ABBREAVIATION	xii
CHAPTER ONE - INTRODUCTION	
1.0 INTRODUCTION	1
1.1 BACKGROUND OF THE STUDY	1
1.2 PROBLEM STATEMENT	3
1.3 OPERATIONAL DEFINITION	4
1.4 RESEARCH OBJECTIVES	5
1.5 RESEARCH QUESTIONS	5
1.6 SIGNIFICANCE OF THE STUDY	6
1.7 SCOPE OF THE STUDY	6
1.8 ORGANIZATION OF THE CHAPTER	7
CHAPTER TWO – LITERATURE REVIEW	
2.0 INTRODUCTION	8
2.1 DEFINITION OF STRESS AND JOB STRESS	8
2.1.1 Cause and Effect of Job Stress	11
2.2 REVIEW OF RESEARCHES ON JOB STRESS OF THE	13
GOVERNMENT EMPLOYEES	
2.3 FACTOR OF STRESS	14
2.4 ORGANIZATIONAL FACTORS	15

2.4.1 Relationship	16
2.4.2 Workload	17
2.5 PERSONAL FACTORS	18
2.5.1 Interpersonal	19
2.5.1.1 Type A & Type B Theory	20
2.5.2 Physical	21
2.6 THE COGNITIVE-MOTIVATIONAL-RELATIONAL THEORY	22
2.7 RESEARCH FRAMEWORK	24
2.8 HYPOTHESES	25
CHAPTER THREE – RESEARCH METHODOLOGY	
3.0 INTRODUCTION	26
3.1 RESEARCH DESIGN	26
3.2 POPULATION AND SAMPLING	27
3.3 QUESTIONNAIRE DESIGN	27
3.4 DATA COLLECTION PROCEDURE	28
3.5 RESEARCH INSTRUMENT & MEASUREMENT	29
3.5.1 Demographic Profile	30
3.5.2 Employees' Job Stress Level	30
3.5.3 Organizational Factor	31
3.5.4 Personal Factor	32
3.6 DATA ANALYSIS	33
3.6.1 Descriptive Analysis	33
3.6.2 Correlation	34
CHAPTER FOUR – FINDINGS AND DATA ANALYSIS	
4.0 INTRODUCTION	35
4.1 RESPONSE RATE	35
4.2 DESCRIPTIVE STATISTICS OF DATA COLLECTION	36
4.2.1 Frequencies	36
4.2.2 Mean and Standard Deviation	39
4.3 CORRELATION ANALYSIS	45

4.5. Hypotheses Testing	45
4.4. Results and Conclusion	49
CHAPTER FIVE – CONCLUSION AND RECOMMENDATION	
5.0 INTRODUCTION	50
5.1 RECOMMENDATION FOR FUTURE RESEARCH	50
5.2 CONCLUSION	51
REFERENCES	53-58
APPENDIX A	
APPENDIX B	
APPENDIX C	
APPENDIX D	

# **List of Figures**

Figure 2.1: Stress Psychological U-Model	10
Figure 2.2: General Adaptation Syndrome (GAS)	13
Figure 2.3: Causes, reactions and consequences.	15
Figure 2.4: Impact of worker health on safety and business performance	21
Figure 2.5: Cognitive Motivational Relational Theory	23
Figure 2.6: Research Framework.	24
Figure 3.1: Five point Likert Scale for Job Stress.	29

# **List of Tables**

Table 3.1: Questionnaire Structure.	28
Table 3.2: Table 4.1: Response Rate	30
Table 3.3: Organizational Instrumentation and Measurement	31
Table 3.4: Personal Factor Instrumentation and Measurement	33
Table 4.1: Response Rate	35
Table 4.2: Gender of Respondent.	37
Table 4.3: Marital Status of Respondent	37
Table 4.4: Education Level of Respondent	37
Table 4.5: Position Group of Respondent	38
Table 4.6: Employment Status of Respondent	38
Table 4.7: Length of Service of Respondent	40
Table 4.8: Level of Perceptions	40
Table 4.9: Summary of Mean and Standard Deviation	41
Table 4.10: Mean and Standard Deviation of Interpersonal Factor	41
Table 4.11: Mean and Standard Deviation of Physical Factor	42
Table 4.12: Mean and Standard Deviation of Negative Relation Factor	43
Table 4.13: Mean and Standard Deviation of Workload Factor	44
Table 4.14: Davis's Scale Model	45
Table 4.15: Pearson Correlation Negative Relation Factor	46
Table 4.16: Pearson Correlation Workload Factor	47
Table 4.16: Pearson Correlation Interpersonal Factor	48
Table 4.18: Pearson Correlation Physical Factor	49
Table 4.19: Results of the Hypotheses Test.	49

## **ABBREVIATIONS**

APA American Psychological Association

GAS General Adaptation Syndrome

HSE Health and Safety Executive

MFRI Maryland Fire & Rescue Institute

TUC Trade Union Congress

#### CHAPTER 1

#### INTRODUCTION

#### 1.0 INTRODUCTION

This chapter will clarify the explanation of the background of the study. The problem statement, research questions, objectives of the study, the significance of the study will also being illustrated in this chapter. Finally, concise explanation on the organizations of the study will provide the idea on how the research being conducted.

#### 1.1 BACKGROUND OF THE STUDY

Job stress issue has been discussed by most of the scholar throughout the years. According to Zafir and Fazilah (2006), the increasing stress at the workplace is caused by the advancement towards globalization era comprising of the change phenomenon in society, technology advances, the availability of resources; and the social structure in order to achieve optimum profitability and resilient competitive advantage.

Practically, everyone consents that job stress is the effect of the interaction of the employees and the conditions of work. "Layoffs" and "budget cuts" have become adage in the workplace and as the consequences, higher levels of stress, fear and uncertainty increased. A study among tens of thousands of government employees in Northern Ireland undertaken by researchers at the University of Nottingham and University of Ulster found that one in four workers experienced work-related stress in times of recession. The study, published in the scientific journal, Occupational Medicine, revealed that work-related stress increased by 40% during an economic

downturn (http://www.belfasttelegraph.co.uk/.) Meanwhile, a research accomplished by APA New York (2012), pointed out that job pressure is the top grounds of job stress in United States followed by financial crisis (money) and health.

Many organizational researchers consider job stress to be an important work related factor Dewe (1992), (2003); Dormann et al, (2002); Fox et al, (2006); Ganster et al, (1991); Glazer et al, (2005); Jamal et al, (1992); Judge et al, (2004); Karasek, (1979); Lazarus, (1991); Scheck et al, (1995); Viswesvaran et al, (1999). According to Donovan et al, (1994), individuals experience job stress when they have little or no control over their jobs or when work demands exceed their abilities. Nevertheless, higher levels of stress are able to hold up the ability to execute task, rarely pleasurable and lead to emotional and physical problems.

Stress is capable to punch anyone at any level of the organization and recent research shows that work related stress is widespread and is not confined to particular sectors, jobs or industries including the public sectors. Fletcher (1988) has made the point that many occupations, including teaching, nursing, air traffic controllers and transportation personnel, have now been studied and have revealed high levels of work stress among many members, manifested in both physical and psychological symptoms. Whereas, Johnson et al (2005); Borritz et al (2006) also commented that occupations such as ambulance workers, teachers, prison officers, police and customers service employees in call centres are identified as being most stressful at work resulting depleting physical and psychological well-being and having the lowest level of job satisfaction

It was reported also that two out of five teachers in the United Kingdom experienced stress, compared to one in five workers from other occupations Abdul Hadi et al, (2009). Data collected during the year 2005 study by MFRI (2006),

indicate that firemen fitness level and pre-participation hydration status were the primary determinants of the cardiovascular stress experienced by firemen. A survey by Unison in February 2013 stated that of more than 14,000 local government workers showed that a massive 87% were struggling to cope with increased pressure in their jobs. According to the survey, as many as 72% said stress were affecting how well they can do their jobs and 70% claimed that stress was affecting their personal life (http://www.managers.org.uk/)

#### 1.2 PROBLEM STATEMENT

Employees are one of your company's greatest assets. How pleasing they are and how they perform in the workplace, giving an impact on to the organizational image and ultimately the levels of service. Thus, Spector (1988) has made the point that personality variables play an important role in the understanding of a range of behaviours in the workplace. Sauter & et al, (1996) define job stress as the harmful physical and emotional responses that arise when the demands of a job do not match the worker's abilities, resources, or needs. According to Siegrist (1996), there must be a balance between what employees "invest" in the job and what they get back. Less motivation and comprehension of the job scopes directing them to react ineffectively and stress more easily.

Different studies have classified job stress in terms of physical environment; role stressors, organizational structure, job characteristics, professional relationships, career development, and work-versus-family conflict Burke, (1993). Cooper and Marshall's (1976) five sources of stress, with examples of the components of these sources given for each, are: (1) intrinsic to the job, including factors such as poor physical working conditions, work overload or time pressures, (2) role in the

organization, including role ambiguity and role conflict, (3) career development, including lack of job security and under/over promotion, (4) relationships at work, including poor relationships with your boss or colleagues, an extreme component of which is bullying in the workplace Rayner and Hoel, (1997) and (5) organizational structure and climate, including little involvement in decision-making and office politics.

For that reason, this study is conducted to identify and examine which factor giving the impact to the job stress within the government employees considering organizational factor (relationship and workload) and personal factor (interpersonal and physical) as the fraction of independent variable.

## 1.3 OPERATIONAL DEFINITION

Government are the largest single employer in every country around the world, and the quality of services they deliver determines the country's level of democracy in general and citizen satisfaction in particular, Pratchett (1999). Performance of government employee is very important which concerns the government image and the efficiency of government management. Better performance will lead to greater citizen trust in government, Kaifeng & Marc (2006).

It has been estimated that illnesses and accidents related to stress account for three-quarters of all time lost from work, Peter (1986). The many challenges in the work environment, characterized by heightened competition, increased work targets, threats of job loss, organizational change, lack of time, lack of space, continuous technological development, conflicting demand from organizational stakeholders McHugh, (1997), increased use of participationary management and computerization (Myers (2000), greater uncertainty and others have resulted in higher work stress.

#### 1.4 RESEARCH OBJECTIVES

The main objective of this research is basically to look over factors contributing to the job stress within the government employees in Malaysia. Apart from the independent variables, various substances in descriptive factor (the demographic profile) will be used in this research as follows:

- To evaluate the relationship between negative relation and job stress among the government employees.
- 2. To evaluate the relationship between workload and job stress among the government employees.
- 3. To evaluate the relationship between interpersonal and job stress among the government employees.
- 4. To evaluate the relationship between physical factors and job stress among the government employees.

#### 1.5 RESEARCH QUESTIONS

Based on the problem statements that have been discuss above, this study intends to discover the answer of the questions as follow:

- Does the relationship factor contribute to job stress among the government employees?
- 2. Does the workload factor contribute to job stress among the government employees?
- 3. Does the interpersonal factor contribute to job stress among the government employees?

4. Does the physical factor contribute to job stress among the government employees?

#### 1.6 SIGNIFICANCE OF THE STUDY

Significantly; in terms of the academicals contribution, this research may provide the data and knowledge on the factors contributing to the job stress among the government employees (relationship, workload, interpersonal and psychology). This research will also specify which demographic profile related to the factor that consistent to the job stress.

As for the organizations especially the public sectors, the significance of the study is by knowing the factors that may contribute the job stress among the government employees. Optimistically, via the conducted research, it will facilitate the public sectors to identify and improve the weak point within the employees in government department. Besides; it will assist the organization, particularly the internal department in handling the employee's behaviour to recognize the employee's needs and setback to facilitate the employee's work life circulate efficiently.

#### 1.7 SCOPE OF THE STUDY

The major focus of this study is to evaluate the factors contributing to the job stress among the government employees. In particular, the researcher aim to examine and identify the strongest factor influences the government employees' job stress. The study was conducted throughout the government department in Putrajaya Federal Territory; involving the government employees' comprise of various profession and occupation, ranging from the support group to the management group.

#### 1.8 ORGANIZATION OF THE CHAPTER

This research consists of five chapters. The first chapter explaining the overview of the research, problem statement, research objective, research question and finally the significance of the study in order to simplify the basic view of the research. The literature reviews, definitions, theories and concepts of the independent and dependent variable will be examined intensely in Chapter 2 to provide better comprehension of the crucial point in the research is all about. The hypothesis and research framework will also be discussed in this chapter.

The theoretical framework, research sampling design, data collection and the variables measure will be included in Chapter 3. The results and findings of the research are generalized in the Chapter 4. Tables will be used to display the results and findings in this chapter. Finally, the research implication and limitation will be in the Chapter 5. Chapter 5 will conclude the overall research and come out with suggestion.

#### **CHAPTER 2**

#### LITERATURE REVIEW

#### 2.0 INTRODUCTION

The overview of the job stress has been explained and generalized in the previous chapter. In this chapter, the literatures review of the independent and dependent variables will be discussed intensely. The definition, past studies, concepts and theories will be explained to provide the comprehension of the research.

#### 2.1 DEFINITION OF STRESS AND JOB STRESS

Commonly, there are numerous perceptions on stress definitions. The work or job related stressors most often cited in the literature include: role related issues (ambiguity, conflict, overload and underload); interpersonal conflict; organizational constraints; and perceived control (Jex, 2002). The term stress evolved from the Latin verb meaning to injure, molest, or constrain Kahn *et al*, (1992). The first theory on stress belongs to Freud (1978), who considered stress as the result of reduced discharge of libidinal energy, either due to external obstacles or due to internal ones. While Selye (1956) recognized stress as "the nonspecific response of the body to any demand made upon it." Cooper *et al*, (1988) suggested that the experience of stress is the result of an interaction between various sources of pressure and the individual. The level of stress is diverse within the individual depending on the individual self-perceived and acceptance. Chemers *et al*, (1985) explained how individuals react to stressful situations is often determined by their individual subjective perceptions and

the capabilities they bring when coping with various situations, not solely by the seriousness of the situation.

Negative effects can produce strain, which in turn produces psychological, behavioural and physical impacts ranging from anxiety and irritability through to coronary heart disease (Ferrie, 2004). Brief et al, (1981) explained not all job stress is bad because a certain amount of job stress has been shown to improve both effectiveness and performance. According to Quick and Quick, (1984), "Stress is necessary for a person's growth, change, development, and performance both at work and at home". There is an obvious difference between pressure which can be a motivating factor that gives the positive impact at times, enhancing energy that provides the drive to get through situations and stress, which take place when the pressure becomes extreme. In several cases, moderate stress can be pleasant and boosts the productivity for some people. Eustress or "good stress" is a term first used and defined by Selye (1964, 1987) for the moderate stress. While Harris (1970) equated eustress with pleasure and Edwards and Cooper (1988) defined eustress as a positive discrepancy between perceptions and desires (provided that the discrepancy is salient to the individual). Eustress is beneficial and it is a level of stress that motivates or makes you creative.

According to this model by Cox and MacKay, demands placed on an individual result in an increase in performance. In this case the demand is referring to the burden lay on a person. There is a point however where optimal performance is reached, and further demands will act to decrease an individual's performance. The human performance curve is the indicator on how the stress reflected to demand when boredom and exhaustion take place. Attention in this model is how these demands perceive and the ability to cope with them, not totally the significance of the demand.

A person who perceives s their ability to cope as weak will experience more stress & vice-versa.

Conversely, stress may harm your health, mood, productivity, relationships, and quality of life when the stress becomes overwhelming. Thus, responding with negative emotions (e.g. hatred, hopelessness, anger, and the urge to revenge) are regarded as largely accounting for the experience of distress Selye, (1987). Distress is the detrimental stress; the one which makes you irritable, dampens your spirit, and shortens your life. According to Cox & MacKay, (1976), stress is "a perceptual phenomenon arising from a comparison between the demand on the person and his ability to cope. An imbalance...gives rise to the experience of stress and to the stress response". Figure 2.1 illustrates the stress psychological U-Model indicates how eustress and distress affect the job performance.

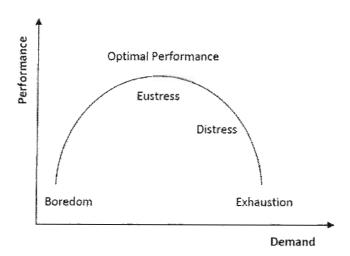


Figure 2.1: Stress Psychological U-Model

(Adapted from Cox and MacKay)

Although the term has no universally agreed definition, it is said to be characterized by depersonalization, emotional exhaustion and a reduced sense of personal accomplishment Leiter *et al.* (1988).

#### 2.1.1 Cause and Effect of Job Stress

By definition, stressor means the situation that tends to cause stress. Stress could appear in various ways. Changes to the way professions are managed and conducted are happening continually. Baum, A. (1990) stated stress as any uncomfortable emotional experience accompanied by predictable biochemical, physiological and behavioural changes. According to (TUC, 2008) the main causes of stress as "Overwork, bullying, low job control and satisfaction, job insecurity, new ways of working, poor work organization and pace of work can all cause stress". Takeovers, mergers, downsizing, and reorganizations have become major stressors for employees. Additional demands create pressures on everyone, from top-level management to the down line.

Research done by the Integra Survey reported that, 65 percent of workers said that workplace stress had caused difficulties and more than 10 percent described these as having major effects, 10 percent said they work in an atmosphere where physical violence has occurred because of job stress and in this group, 42 percent report that yelling and other verbal abuse is common, 29 percent had yelled at co-workers because of workplace stress, 14 percent said they work where machinery or equipment has been damaged because of workplace rage and 2 percent admitted that they had actually personally struck someone, 19 percent or almost one in five respondents had quit a previous position because of job stress and nearly one in four have been driven to tears because of workplace stress, 62 percent routinely find that

they end the day with work-related neck pain, 44 percent reported stressed-out eyes, 38 percent complained of hurting hands and 34 percent reported difficulty in sleeping because they were too stressed-out, 12 percent had called in sick because of job stress and over half said they often spend 12-hour days on work related duties and an equal number frequently skip lunch because of the stress of job demands (http://www.stress.org/workplace-stress/).

Any number of other symptoms such as headache sleep disturbances, muscle tension, difficulty concentrating, lack of interest in food and binge eating derived from poorly-managed stress. Williams *et al*, (2001) stated that short-term outcomes of job stress have both physiological and behavioural effects leading to poor job performance. Besides, it may cause the person more prone to anxiety and depression over the long term. Stress also impairs the immune system, leading to an increased susceptibility to colds and other infections. Studies have shown that psychological stress worsens the intensity of symptoms of many conditions, such as cardiovascular disease. In addition, stress raises blood pressure levels, and increases the risk of heart attacks and stroke.

However, Montgomery *et al.* (1996) see severe job stress as dysfunctional and decreasing commitment and productivity. Stress may affect organizations in the form of violence, absenteeism, accidents, employee turnover and diminished productivity. Figure 2.2 illustrated the General Adaptation Syndrom (GAS) model developed by Hans Selye to describe the effect of chronic stressors on the body.

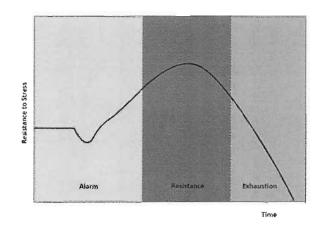


Figure 2.2: General Adaptation Syndrome (GAS)

(Adapted from Hans Selve)

Hans Selye GAS theory consist of three phase. The first phase of the model is the alarm phase. This is where the fight or flight response is activated. At this stage, the ability to resist the stressor is increasing. In the resistance phase, the body starts to adapt to the existence of a chronic stressor in the second phase, specifically the resistance phase. Ultimately; in the exhaustion phase the body's resources become depleted and body systems start to abate. Selye saw stress as a generic response which occurred in reaction to any stressor (1974).

# 2.2 REVIEW OF RESEARCHES ON JOB STRESS OF THE GOVERNMENT EMPLOYEES

Internationally, numerous researchers had done their study and research on job stress involving the public sector in this case the government employees. Lewig and Dollard (2001) find that public sector employees are subject to greater work-related stress than private sector employees. Dollard and Walsh (1999), however, report that private

sector workers in Queensland, Australia, had made twice as many stress claims as public sector workers. Macklin *et al.* (2006) survey 84 public and 143 private sector employees to assess any significant difference in their stress levels. Whilst, D'Aleo *et al,* (2007) examine a sample of 559 public and 105 private sector employees to assess their respective risk profiles. They find that public sector employees face more stress than private sector employees.

Research in the public sector has reported issues with high volumes of work and tight deadlines; unclear or changing expectations of superiors, and low job control Cartwright *et al*, (2000); Dewe and Brook, (2000); Ferrie, (2004); Troup and Dewe, (2002); Widerszal-Bazyl *et al*, (2000); job insecurity, constant change and poor communication Cartwright *et al*, (2000); Dewe and Brook, (2000); McHugh and Brennan, (1994); Sargent, (1995). Thus stressors were largely concerned with the context of work, and only minimally with content (workload and pace). Due to their findings, this research is attempted to evaluate the factor contributing to the job stress among the government employees in Malaysia.

#### 2.3 FACTORS OF STRESS

Subsequent to the explanation of cause and effect of the job stress, at this point we will further discussed on the factors of stress (organizational and personal factors). Jackson *et al,* (1983) summarizes the major causes, reactions, and consequences. Causes, reactions and consequences of stress are shown in Figure 2.3 to briefly overview how the organizational and personal stress giving the impact to the individual.

CAUSES, REACTIONS AND CONSEQUENCES OF STRESS

Causes	Psychological Reaction	Consequenses
Organizational  Lack of Rewards  Lack of Clarity  Lack of Support	Emotional exhaustion Depersonalization	Withdraw Interpersonal friction Declining performance
Personal Idealistic expectations Personal responsibility	Low personal accomplishment	Family Problems Poor Health

Figure 2.3: Causes, reactions and consequences

(Adapted by Jackson et al.)

#### 2.4 ORGANIZATIONAL FACTOR

Threats to career development and achievement, including threat of redundancy, being undervalued and unclear promotion prospects are stressful Nelson and Burke, (2000). Yet, in *A Survival Guide to the Stress of Organizational Change*, the authors state, "resisting change is one of the most common causes of stress on the job" Pritchett and Pound (1995). For instance, supervisors will undergo stress when there is a change in an organization and the workers are unwilling to accept the changes. In addition, tasks that are routine or unpleasant and a workload that is either too heavy or too light can cause stress in workers. In a study of the utility of the organizational context for investigating rates of worker participation in worksite wellness activities, Crump *et al*, (1996) reported a positive association between higher levels of management support for activities, promotional marketing of the health benefits of wellness activities, and ease of accessibility to employees and noted that

understanding the reasons for limited participation in such initiatives will likely lead to more effective programming and increase their cost—benefit ratios.

#### 2.4.1 Relationship

Hans Selye suggested that learning to live with other people is one of the most stressful aspects of life: "good relationships between members of a group are a key factor in individual and organisational health" Selye, (1974). Inadequate leadership, a breakdown in the interpersonal climate and the resultant conflict can be very stressful within the confines of a capsule environment. Suedfeld and Steel, (2000). Misunderstand in communication and action could convey stress. Communication and teamwork suffer, the exchange of information is minimized and the employees may become defensive of their duties, knowledge, and even their workspace.

Bijlsma and Koopman (2003) refer to studies which have found that trust between organizational members can promote voluntary cooperation, extra role behaviours and performance as well as individual and team satisfaction and both organizational and decision commitment. Research into work relationships has concluded that many stress-related symptoms and illnesses derive particularly when the relationship between a subordinate and a boss is psychologically unhealthy for one reason or another Cooper and Payne, (1991). According to Anderson & Pulich, (2001) managers must assist and guide employees to best prepare them for career advancement. Parnell and Hatem (1999) also confirmed the importance of relationships over the task and the importance of loyalty to the group.

#### 2.4.2 Workload

Several studies have been done highlighted that workloads or work overload is the results of the stress. Objective work overload, defined as having too much work and too little time, is a psychological stressor according to Claessens *et al.*, (2004); Roberts *et al.*, (1997). While Bacharach *et al.*, (1990); Barrett *et al.*(1991); Cox *et al.*(2010); Houdmont *et al.*, (2010) had mentioned that workplace stress is associated with work overload, role conflicts, pressure, and job insecurity. Heavy workloads for a short period of time cause extra stress to the individual. Conversely, prolonged heavy workloads pose a serious threat to the wellbeing of a company's employees and even to the company's own long-term sustainability. According to Donovan and Kleiner, (1994) individuals experience job stress when they have little or no control over their jobs or when work demands exceed their abilities. Employees tend to be hassled when they get work overload. They become worried about meeting deadlines and schedules. Work overload stimulates the GAS response.

According to The Keil Centre (2002) on the Management Standards for Preventing and Resolving Workload Problems Causing Stress, workloads can become excessive and therefore harmful in a number of ways. Exactly how this happens is likely to vary from job to job. However, there are some general processes such as; working very hard within normal hours can cause tiredness, working very long hours for prolonged periods can lead to fatigue and further problems outside work, repeatedly trying to complete tasks that are impossible within time limits or available resources may cause anxiety and frustration, regularly failing to meet deadlines may lead to a sense of helplessness or depression, not being given clear guidance about what a particular task involves can lead to frustration and confusion, accidents and mistakes are more likely to occur when people are tired and/or working very quickly

to meet deadlines (http://www.keilcentre.co.uk/). In short, greater conflict in policy analysis increases workload, a clear contributor to increased stress, Widerszal-Bazyl *et al.*, (2000).

Workload is excessive if employees repeatedly report the following kinds of problems such as fatigue and tiredness, excessive overtime working, working longer than contracted hours for extended periods, a sense of being overwhelmed, constant about meeting deadlines and failing meet deadlines worry (http://www.keilcentre.co.uk/). Overloading employees with unreasonable work expectations (e.g. undue pressure, impossible deadlines, and unnecessary disruptions) is a form of workplace bullying or abusive supervision, Rayner et al, (1997); Tepper, (2007). For instance, overloaded employees are more likely to make mistakes, feel anger or resentment toward their employers or coworkers, experience high levels of stress, have poorer health and work-family balance, and seek employment elsewhere Galinsky et al, (2001); Kalleberg, (2008).

#### 2.5 PERSONAL FACTORS

Stress symptoms may be affecting the health unconsciously. Indeed, stress symptoms can affect body, thoughts and feelings, and behaviour. Unrestrained stress may contribute to health nuisance such as high blood pressure, heart disease, obesity and diabetes. According to Sparks and Cooper, (1999), the conflict between home and work and the work impact on personal relationships is stressful. Besides, stress may also affect emotional and behaviour. Fox *et al.* (2002) reported that emotion work and the experience of emotional exhaustion are related and emotional dissonance is negatively correlated with job satisfaction, which is derived from the job stress.

#### 2.5.1 Interpersonal

Negative interaction between two or more person could bring to stress existence. Conflicts may take place with partners, parents, siblings, children, friends, coworkers, employees, bosses, even total strangers. Ivancevich and Matteson (1978) suggest that individuals suffering from "career stress" often show high job dissatisfaction, job mobility, burn-out, poor work performance, less effective interpersonal relations at work. According to Israel *et al.*, (1989), the employee also may experience significant anxiety, anger, and irritability, which may affect his or her capacity to maintain interpersonal relationships outside of the organization.

Several studies have documented the spill-over of work stress to the family Repetti, (1989). In several models work stress is proposed as an antecedent of work-family conflict. Higgins *et al*, (1992) found that work conflict is the most important predictor of family conflict and work family conflict. Mayer *et al*. (1995) argued that trust in interpersonal relations implies a willingness to be vulnerable; to place you at risk, and this is based in convictions that the other party is competent, concerned and reliable. Threats to career development and achievement, including threat of redundancy, being undervalued and unclear promotion prospects are stressful Nelson and Burke, (2000). Inadequate leadership, a breakdown in the interpersonal climate and the resultant conflict can be very stressful within the confines of a capsule environment Suedfeld and Steel, (2000).

### 2.5.1.1 Type A & Type B Theory

There is a relationship between interpersonal factors and Type A & Type B theory that affect stress. In his 1996 book, 'Type A Behavior: Its Diagnosis and Treatment',

Friedman (1996) suggests that Type A behaviour is expressed in three major symptoms: free-floating hostility, which can be triggered by even minor incidents; time urgency and impatience, which causes irritation and exasperation; and a competitive drive, which causes stress and an achievement-driven mentality. According to Friedman (1996) also, the first of these symptoms is believed to be covert and therefore less observable, while the other two are more overt. While the theory describes Type B individuals as perfect contrast to those with Type A personalities. People with Type B personalities are generally patient, relaxed, easygoing, and at times lacking an overriding sense of urgency.

#### 2.5.2 Physical

Health has the positive link to the personality features such as self-efficacy expectancies, psychological hardiness, optimism and a sense of humour. According to Anderson, N.B. (1998), an extreme amount of stress can have health consequences and adversely affect the immune, cardiovascular, neuro endocrine and central nervous systems. The more frequently the person is in a stress-response mode, the more susceptible that individual is to fatigue, disease, disability, aging, and death Matteson and Ivancevich, (1987). The common headache is the muscle-tension headache, which is often stressed related. The impact of worker health on safety and business performance is shown in Figure 2.4 as follows:

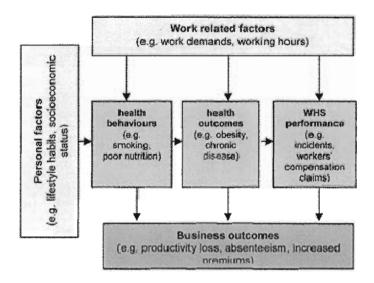


Figure 2.4: Impact of worker health on safety and business performance

Adapted from http://www.deir.gld.gov.au/

The model above summarized the way personal and work related factors influence employee's health and wellbeing and the performance of the business. Work design, workplace culture and the physical environment can contribute to the development of chronic diseases, musculoskeletal disorders and psychological illness. Employees that are regularly exposed to hazardous working conditions, physically demanding tasks, high levels of stress and long working hours are more likely to smoke, have low levels of physical activity and poor nutrition and consume too much alcohol. HSE (2001) describes how ill health can result if stress is prolonged or intense, with the negative effects including heart disease, back pain, gastrointestinal disturbances, anxiety and depression. For instance, risk factors in cardiovascular disorders include age, gender, family history, socioeconomic status, obesity, hypertension, blood cholesterol, patterns of consumption, 'Type A' behaviour, anger, phobic anxiety, stress, and an inactive lifestyle. Besides, physical conditions such as high noise levels,

overcrowding in the workplace or a lack of privacy have been associated with stress Burke, (1988).

#### 2.6 THE COGNITIVE-MOTIVATIONAL-RELATIONAL THEORY

In explaining the factors contributing to stress, the Cognitive-Motivational-Relational Theory by Lazarus portrayed the mechanism on how a person perceiving and respond to stress. Ever since stress appeared in various manner such as physical, interpersonal, relationship and workload, however it depends on the person perceptions and acceptance of threats; and the way to overcome stress. According to Lazarus *et al.* (1984), "psychological stress is a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being". Lazarus (1991) used the term cognitive-motivational-relational theory to describe a way of understanding stress as an outcome, subject to the balance of power which exists between environmental demands, constraints, and resources, and the ability of the person to manage them.

Cognitive appraisal is the "process of categorizing an encounter, and its various facets, with respect to its significance for well-being" as stated by Lazarus *et al.*, (1984). Figure 2.5 exemplifies the Cognitive-Motivational-Relational Theory. According to the Cognitive Motivational Relational Theory, three important things were highlighted; first, it highlights the complexity of the stress process, second, it locates the process within the individual rather than in the environment and third, it explicitly incorporates mental activity as a driving force in the stress process.

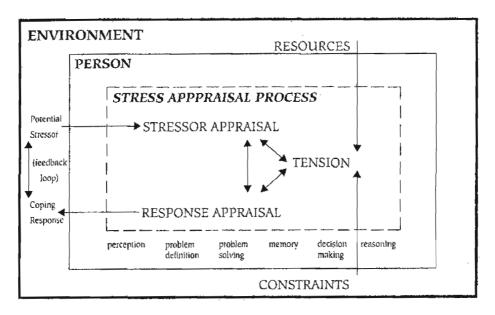


Figure 2.5: Cognitive Motivational Relational Theory

(Adapted from Lazarus)

Again, Lazarus, (1999) stated that cognitive appraisal is the process by which a person evaluates the relevance of a demand and decides whether it is likely to have a positive or negative effect. As stated by Lazarus *et al.*, (1984), threat and challenge appraisals are not two ends of a single continuum but threat and challenge appraisals are related to the ways in which people attempt to cope with stressful demands. Although they are negatively correlated Skinner *et al.*, (2002); Berjot *et al.*, (2009), threat and challenge appraisals can occur simultaneously. For instance, Folkman *et al.*, (1985) showed that students waiting for an exam appraised the upcoming event as particularly threatening and challenging. After a primary appraisal of threat or challenge is made, a secondary appraisal process of identifying and selecting available coping options is made Lazarus *et al.*, (1984).

#### 2.7 RESEARCH FRAMEWORK

The research framework proposed for this research is illustrated in Figure 2.6. Two variables were designed to describe the situation; which is the employee's job stress (dependent variable) and the job stressors: interpersonal, physical, relationship and workload (independent variable).

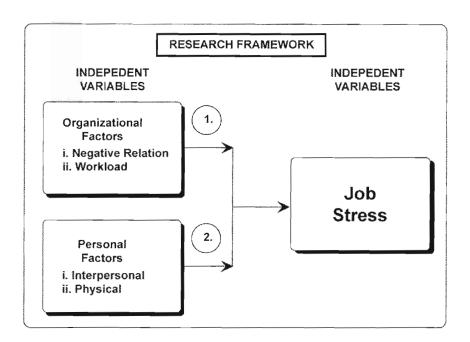


Figure 2.6: Research Framework

Therefore, this research will observe the relationship between personal stressor (interpersonal and physical) and organizational stressor (workload and relationship) with employee's job stress.

## 2.8 HYPOTHESIS

Based on the research objective, the hypotheses developed for this research are as follows:-

- H<sub>1</sub> There is a positive relationship between negative relation factor among the government employees and job stress.
- H<sub>2</sub> There is a positive relationship between workload factor among the government employees and job stress.
- H<sub>3</sub> There is a positive relationship between interpersonal factor among the government employees and job stress.
- H<sub>4</sub> There is a positive relationship between physical factor among the government employees and job stress.

## **CHAPTER 3**

## RESEARCH METHODOLOGY

## 3.0 INTRODUCTION

The methodology of the research will be discussed in this chapter. Research design, population and sampling, questionnaire design, measurement and instrumentation and data collection will be elaborated in this chapter. Discussion on technique of data analysis will be elaborate briefly to the end.

#### 3.1 RESEARCH DESIGN

Quantitative research design was used to evaluate the relationship between interpersonal, personal, physical and workload and job stress. Survey method was applied to collect the primary data in this quantitative research to gather information on the relationship of level of employee's job stress with interpersonal, personal, physical and workload factors. Also, research descriptive statistic is to examine the frequency and respondent profile percentage such as gender, service group and length of service. According to Sekaran (2003), descriptive study is undertaken in order to examine and determine certain variable and their relationship in the problem. Besides, the stress percentage and frequency will be discovered and to be presented in the researcher's finding in Chapter 4.

## 3.2 POPULATION AND SAMPLING

The population for this study was the government employees in Putrajaya Federal Territory. According to Sekaran (2003) population can be defined as the entire group of people, the events and things that the researcher wishes to investigate. Sekaran (2003) highlighted that the researcher must ensure that the population consisted of those entities which are actually the information sought by the survey. According to Sekarang (2003), a sample is subset of the population. It includes some member selected or participation in the study Malhotra, (2004). Sekaran (2003) have proposed two types of sampling design. The probability sampling is the sampling design in which the elements of the population have known chance or probability of being selected as sample subjects. Non-probability is the sampling in which the elements of the population do not have a known or predetermined chance of as sample subject. As the actual population frame could not be obtained, hence random sampling would be utilized for this research. Therefore, the total of 200 questionnaires was distributed to the government employees in Putrajaya area and only 167 questionnaires were obtained. For the reference purpose, Appendix A illustrates the percentage of the government employees for the year 2012 in Putrajaya Federal Territory.

## 3.3 QUESTIONNAIRE DESIGN

All the survey materials were prepared in English. Each participant in this study received a five page questionnaire with 39 items. The survey materials used in this study are shown in page 59. In this study, questionnaire was divided into four sections as shown in Table 3.1 as follows:

Table 3.1: Questionnaire Structure

Section	Variables	Number of Item	Total
A	Demographic Profile	1-6	6
В	Employees Job Stress (Dependent Variable)		
	(a) Physical	JSP1-JSP5	5
	(b) Psychological	JSS6-JSS9	4
С	Personal Factor (Independent Variable) (a) Interpersonal (b) Physical	PFI1-PFI5 PFP6-PFP10	5 5
D	Organizational Factor (Independent Variable) (a) Relationship (b) Workload	OFR1-OFR7 OFW8-OFW14	7 7
	TOTAL		39

## 3.4 DATA COLLECTION PROCEDURE

The data is collected via survey questionnaires which are distributed in various departments' regardless profession and occupation randomly. Each and every participant is required to answer 5 pages questionnaire, consisting of 4 sections. Several questionnaires were given directly to the respondents and a few were mailed. The contacts were made with representatives in several departments in order to distribute the questionnaires. Explanations regarding the questionnaire were given to the representatives orally to attain the participants' co-operation and to give the general idea of the research. The survey materials utilized in this study are shown in page 59.

## 3.5 RESEARCH INSTRUMENT & MEASUREMENT

In this research, the researcher used the questionnaire for instrumentation that based on several earlier studies. The questionnaire consists of 5 sections and 39 questions were constructed. Section A is created for demographic profile of the respondents; section B is to measure the job stress level experienced by the government employee; section C is used to verify the personal factors that cause the job stress among the government employee and the finally section D is used to determine the organizational factors that caused job stress among the government employee.

Likert (1932) developed the principle of measuring attitudes by asking people to respond to a series of statements about a topic, in terms of the extent to which they agree with them, and so tapping into the cognitive and affective components of attitudes. Five point Likert Scale has been used in this questionnaire to find out the best answer that represents the respondent. According to Bowling (1997) and Burns et al (1997), Likert-type or frequency scales use fixed choice response formats and are designed to measure attitudes or opinions. These ordinal scales measure levels of agreement/disagreement. In this study, the respondent is asked to rate from 1 to 5 point (1 = strongly disagree and 5 = strongly agree) for Section B, C and D. The 5 point Likert Scale is shown in Figure 3.1 as follows:

Scale	1	2	3	4	5
Perception	Strongly	Disagree	No	Agree	Strongly
	Disagree		Opinion		Agree

Figure 3.1: Five point Likert Scale for Job Stress

Whilst, the respondents were request to circle the best answer to describe their profile in Section A.

# 3.5.1 Demographic Profile

The demographic profile in Section A has been divided into personal characteristics and professional characteristics variable. The personal characteristics include such variables like gender and marital status. While, the professional characteristics were include the highest education level, service group (management or support group) length of service with the public sector.

# 3.5.2 Employee's Job Stress Level

Job stress derived from various factors. Therefore, to determine the level of the job stress among the government employees, the researcher has adapted the question from based on the following authors as illustrated in Table 3.2.

Table 3.2: Level of Job Stress Question

Dependent Variable	Item	Operational Definition	Author
Job Stress	<ol> <li>I always feel exhausted after a day's of work.</li> <li>I always experience a neck pain.</li> <li>I always have a headache.</li> <li>I always have a slow recovery from a stressful event.</li> <li>I always experience backache.</li> <li>I always experience emotional ups and downs.</li> <li>Lately, I always become more impatient than usual.</li> <li>I always feel very tense in the office.</li> <li>I have no enthusiasm to 'face another day'.</li> </ol>	Referring to the physiological and psychological question	Gmelch (1982) and Walt (1987)

# 3.5.3 Organizational Factor

Section D is constructed to determine organizational factors that could be the potential cause of work stress as perceived by the government employees. In this section the instrument was adapted from Naemah (2007), Wan Mohamad Nasir (2002) and Baskaran (2004). In the organizational factor, two elements will be evaluate, which are workload and relationship with all together 14 items used in this instrument. Also, the respondents have to choose the 5 response options in the Likert Scale as shown in Figure 3.1 in page 29 for this item. Table 3.3 illustrates the reference, author and question for the instrumentation.

Table 3.3: Organizational Instrumentation and Measurement

Independent Variable (Organizational Factor)	Item	Operational Definition	Author
Relationship	<ol> <li>I always thinking work matters although at home.</li> <li>I work under tight time deadline.</li> <li>I always do overtime to complete work.</li> <li>I am expected to do more work than is reasonable.</li> <li>I wish that I had more assistance to deal with the burden placed upon me at work.</li> <li>I frequently dispute with individual from other units/department.</li> <li>Not enough cooperation from supervisor /subordinates.</li> </ol>	These researchers have found that relationship is a factor of work stress	Vishal et. al (2011), Houkes et. Al (2003), Siga & Hoel (2003), Mei & Gin (2008), Jaramillo et al (2006), Schneider, B., Bowen, D. E. (1985), Montgomery et al (1996), Khattak et al (2011).
Workload	<ol> <li>My supervisor is not helpful enough.</li> <li>My colleagues are</li> </ol>	These researchers found that	Vishal et. al (2011), Houkes et. Al

0: 11		(2000) 7.6:0
unfriendly.	workload	(2003), Mei &
3. I feel unpleasant with the	he recorded	Gin (2008),
way of my colleague tr	eated under	Khattak et al
me when do the work.	moderate to	(2011).
4. I feel that I have too m	uch high level	
responsibility.	stress.	
5. I find difficulty in findi enough time to relax.	ing	
6. I am so depressed when	n I	
think about all task that	t need	
my attention.		
7. There is constant pressor work every minute with limited opportunity to r	h	

## 3.5.4 Personal Factor

To evaluate the potential cause of work stress as perceived by the government employees from the personal factors dimension, the researchers adapted the questionnaire from Naemah (2007). The reference, author and question meant for the instrumentation are as illustrated in Table 3.4. In favour of this part, this instrument used the Occupational Stress Inventory – Recised (OSI-R) questionnaires Osipow, (1998). Researcher has categorized the personal factor question in Section C. Two elements, which are interpersonal strain and physical strain, were asked in this section. For each items, the respondents have to choose the 5 response options in the Likert Scale as shown in Figure 3.1 in page 29.

Table 3.4: Personal Factor Instrumentation and Measurement

Independent Variable (Personal Factor)	Item	Operational Definition	Author
Interpersonal	<ol> <li>I often argue with friends.</li> <li>Lately, I do things by myself instead of with other people.</li> <li>I often quarrel with members of the family.</li> <li>Lately, I am worried about how other at work views me.</li> <li>Lately, I avoid meeting other people.</li> </ol>	These researchers found that personal factors have relationship with the work stress	Vishal et. al (2011), Khattak et. al (2011)
Physical	<ol> <li>I have unplanned weight gain.</li> <li>My eating habits are erratic (inconsistence).</li> <li>I have been feeling tense.</li> <li>Lately, I have been tired.</li> <li>I have serious aches and pains.</li> </ol>		

# 3.6 DATA ANALYSIS

The data collected from the respondents were coded and compiled using the IBM Statistical Package for Social Sciences (SPSS) version 20.0 software. While for the purpose for data analysis and hypotheses testing, several statistical tests such as mean, standard deviation, correlation and frequencies were used to describe the data.

# 3.6.1 Descriptive Analysis

The purpose of this analysis was to attain the results of frequency distribution, measures of central tendency and measures of dispersion of variability. In this research, descriptive statistics is used to describe and analyse the basic features of the

data in a study; gender, marital status, position grouping and length of service. The descriptive statistics was conducted used for computing the mean scores and standard deviation of each dimension of the variables. The mean is calculated to measure the importance of each of them respectively (Sekaran, 2010).

## 3.6.2 Correlation

The Pearson Correlation coefficient was used to understand the direction of the relationship and amount of correlation between the dimensions of independent variables (interpersonal, workload, relationship and physical factor). According to Bryman, (2007) Pearson's r is a method for examining relationships between interval or ratio variables. According to Sekaran (2010), this to examine the independent variables is correlation with the dependent variable. Positive relationship indicates strong correlation, while the weak correlation will show the negative relationship.

## **CHAPTER 4**

## FINDINGS AND DATA ANALYSIS

## 4.0 INTRODUCTION

The findings and analysis of the study will be discussed in this chapter. Also; in this chapter, the results of the respondents' descriptive analysis and mean of each variable will be examined. The hypothesis will be tested using the 2-tailed Pearson correlation analysis to perceive the correlation between dependent and independent variables.

## 4.1 RESPONSE RATE

The totals of 200 questionnaires have been distributed to the government employees in Putrajaya Federal Territory. Merely 167 respondents returned the questionnaires out of 200 questionnaires, which constituted 83.5% of the response rate. The response rates were shown in Table 4.1 below:

Table 4.1: Response Rate

	Total	%
Questionnaires distributed	200	100 %
Questionnaires collected	167	83.5 %
Uncollected questionnaires	33	16.5 %

## 4.2 DESCRIPTIVE STATISTICS OF DATA COLLECTION

Descriptive statistics particularly useful to make some general observations about the data collected; for example, demographics profile questions. Descriptive statistics consist of univariate (for single data); which involves the examination across cases of one variable at a time. There are three major characteristics of a single variable that we tend to look at: the distribution, the central tendency and the dispersion (http://www.socialresearchmethods.net/).

.

## 4.2.1 Frequencies

Frequencies generally summarized by the distribution. The simplest distribution would list every value of a variable and the number of persons who had each value; for instance the demographic profile. Essentially, descriptive statistics for a single variable are provided by frequencies, measures of central tendency and dispersion. The frequencies are referred to the number of times various subcategories of a certain phenomenon occur, from which the percentage and cumulative percentage of their occurrence can be easily calculated. To measure the respondents' demographics profile, researcher have used some tools such as gender, marital status, the education level, position group, employment status and length of service.

The result of the gender is illustrated in Table 4.2 as shown below. 33.5% (56 respondents) were male and the rest of 66.5% (111 respondents) were female. Therefore, the respondents were mostly female.

Table 4.2: Gender of Respondent

Gender	Frequency	Percentage (100%)
Male	53	31.7
Female	114	68.3
Total	167	100.00

From all the 167 respondents, 34.7% (58 respondents) were single and 65.3% (109 respondents) were married. Table 4.3 indicates the respondents' marital status.

Table 4.3: Marital Status of Respondent

Marital Status	Frequency	Percentage (100%)
Single	61	36.5
Married	106	63.5
Total	167	100.00

Based on Table 4.4, most of the respondents were from the secondary school 36.5% (61 respondents) and only slight numbers were holding the Master that is 4.8% (respondents). 26.9% (45 respondents) were the Certificate and Diploma holder. While, the table indicates 31.7% (respondents) were the Degree holder. None of the respondent was the PHD holder.

Table 4.4: Education Level of Respondent

Education Level	Frequency	Percentage (100%)
SRP/PMR/SPM	55	32.9
Certificate/Diploma	45	26.9
Degree	59	35.3
Master	8	4.8
Total	167	100.00

Almost 2/3 of the respondents were from the support group as shown in Table 4.5. The support group consist of 65.9% (110 respondents) and the rest of 34.1% (57 respondents) were from the management group.

Table 4.5: Position Group of Respondent

Position Level	Frequency	Percentage (100%)
Management	62	37.1
Support	105	62.9
Total	167	100.00

Table 4.6 indicates the respondents' employment status. The respondents were mostly permanent employees indicates 78.4% (131 respondents) which showed the massive frequency. Only 12.6% (21 respondents) were under contract and the rest of 9% (15 respondents) were the temporary staff.

Table 4.6: Employment Status of Respondent

<b>Employment Status</b>	Frequency	Percentage (100%)
Permanent	132	79.0
Contract	20	12.0
Temporary	15	9.0
Total	167	100.00

The results of respondents' length of service were illustrated in Table 4.7. Most of the employees have been working for 3 years to 10 years; showing 48% (81 respondents)

and 22.2% (37 respondents) have been working less than 2 years. There were 17.4% (29 respondents) of the total respondent worked for 11 years to 20 years and the rest of 12% (20 respondents) were the senior staff.

Table 4.7: Length of Service of Respondent

Length of Service	Frequency	Percentage (100%)
Less than 2 year	37	22.2
3 years - 10 years	83	49.7
11 years - 20 years	28	16.8
21 years and above	19	11.4
Total	167	100.00

## 4.2.2 Mean and Standard Deviation

According to Coakes and Steed (2007), descriptive statistics are used to describe, examine and summarize the main features of a collected data quantitatively. Hence, the descriptive statistics summarizes the results of the data set. Basically, this is the method used to organize, display, describe and explain a set of data with use of tables, graph and summary measures Norusis, (1999), Johnson and Christense, (2000). According to Sekaran, (2000) mean measures the central tendency that offers an overall picture of the data without unnecessarily inundating one with each of the observations in a data set. The mean or average score is use to identify the central location of the data (http://www.gastro.org/). Mean and standard deviation were used to describe the statistics in this

All variables were measured using the five Point Likert-Scale answers. Respondents were asked to indicate their perceptions and agreement towards the statement in the questionnaires using the scale. The scale were ranged between 1 (strongly disagree) to 5 (strongly agree). The average score (mean) for each variables based on their score or each statement. This value was then categorized to the following categories to indicate their level of perceptions towards all variables as shown in Table 4.8.

Table 4.8: Level of Perceptions

Range	Category
1.00 to 2.25	Low
2.26 to 3.75	Moderate
3.76 to 5.00	High

Table 4.9 summarized the mean scores, standard deviation and the level of perceptions for the entire variables. In general, the job stress of the respondents signifies the moderate level perception. While the mean scores for physical, relationship and workload factors were in the moderate level category, however it indicates low perceptions from the respondents for interpersonal factor.

Table 4.9: Summary of Mean and Standard Deviation

Variables	N	Mean	Std Deviation	Level
Job Stress Level	167	2.72	1.109	Moderate
Interpersonal	167	2.14	0.945	Low
Physical	167	2.53	1.105	Moderate
Relationship	167	2.69	1.047	Moderate
Workload	167	2.51	0.877	Moderate

# **Interpersonal Factor**

Table 4.10 shows the mean and standard deviation scores for interpersonal factor variable. The means for this factor ranging from the lowest score 1.79 represents item (PFI13) "I often quarrel with members of the family) and the highest score 2.47 which signifies item (PFI4) "Lately, I am worried about how other at work views me". Therefore; only a few respondents have low stress attachment relating to family members, however in contrary, most respondents were bothered of other people perceptions at the workplace.

Table 4.10: Mean and Standard Deviation of Interpersonal Factor

Item	Questions	Mean	Std Deviation	Level
PFI1	I often argue with friends.	1.96	.821	Low
PFI2	Lately, I do things by myself instead of with other people.	2.35	.921	Moderate
PFI3	I often quarrel with members of the family.	1.79	.904	Low
PFI4	Lately, I am worried about how other at work views me.	2.47	1.034	Moderate
PFI5	Lately, I avoid meeting other people.	2.14	.987	Low

# **Physical Factor**

The mean scores for physical factors variables are shown in Table 4.11. The lowest mean is 1.82 (PFP10) "I have serious aches and pains", while the highest score is 3.04, referring to item (PFP9) "Lately, I have been tired". The findings pointed out, serious illnesses is not a major factor that might cause stress but mostly undergone exhaustion and fatigue throughout the day that tend to cause stress.

Table 4.11: Mean and Standard Deviation of Physical Factor

Item	Questions	Mean	Std Deviation	Level
PFP6	I have unplanned weight gain.	2.60	1.182	Moderate
PFP7	My eating habits are erratic (inconsistence).	2.80	1.183	Moderate
PFP8	I have been feeling tense.	2.35	1.012	Moderate
PFP9	Lately, I have been tired.	3.04	1.232	Moderate
PFP10	I have serious aches and pains.	1.84	.914	Low

# **Relationship Factor**

Based on the mean score shown in table 4.12, the entire items have shown the moderate perception level towards stress for relationship factor variables. According to the mean analysis results; the lowest score is 2.09 which represents item **OFR6** "I am so depressed when I think about all tasks that need my attention' and the highest mean score is item **OFR5** "I find difficulty in finding enough time to relax", scored 3.13. Generally, most respondents' have insufficient rest and have the high tendency to get stress.

Table 4.12: Mean and Standard Deviation of Negative Relation Factor

Item	Questions	Mean	Std Deviation	Level
OFR1	My supervisor is not helpful enough.	2.80	1.163	Moderate
OFR2	My colleagues are unfriendly.	2.72	.961	Moderate
OFR3	I feel unpleasant with the way of my colleague treated me when do the work.	2.83	1.192	Moderate
OFR4	I feel that I have too much responsibility.	2.93	1.062	Moderate
OFR5	I find difficulty in finding enough time to relax.	3.13	1.198	Moderate
OFR6	I am so depressed when I think about all tasks that need my attention.	2.07	.868	Moderate
OFR7	There is constant pressure to work every minute with limited opportunity to relax.	2.34	.883	Moderate
	Total	100.00		

## **Workload Factor**

Table 4.13 illustrates the workload factors mean scores and standard deviation. The findings revealed two items with low perception; with the lowest mean score = 1.97 for item **OFW9** "I work under tight time deadline". In addition, the other five items have shown the moderate perception with the highest mean score = 3.04; **OFW11** "I am expected to do more work than is reasonable". From the findings researcher could conclude, the respondents in majority were encumbered with workload and perhaps the multitasking.

Table 4.13: Mean and Standard Deviation of Workload Factor

Item	Questions	Mean	Std Deviation	Level
OFW8	I always thinking work matters although at home.	2.43	.928	Moderate
OFW9	I work under tight time deadline.	1.93	.851	Low
OFW10	I always do overtime to complete work.	2.05	.880	Low
OFW11	I am expected to do more work than is reasonable.	3.04	1.205	Moderate
OFW12	I wish that I had more assistance to deal with the burden placed upon me at work.	2.77	1.124	Moderate
OFW13	I always thinking work matters although at home.	2.77	1.108	Moderate
OFW14	I work under tight time deadline.	2.62	1.133	Moderate

## 4.3 CORRELATION ANALYSIS

The Pearson's correlation is used to determine a relationship between at least two continuous variables. The value for a Pearson's be able to fall are between 0.00 (no correlation) and 1.00 (perfect correlation). Correlations above 0.80 are considered high commonly. Hypothetically, there could be a perfect positive correlation between two variables, which is represented by 1.0 (plus 1), or perfect negative correlation which would -1.0 (minus 1). Table 4.14 exemplifies the indicator of r value to demonstrate strength or weakness of the relationship. Davis (1997) was proposed the rules of thumb that need to be used in interpreting the R value obtained from this analysis.

Table 4.14: Davis's Scale Model

R-value	Pearson Indicator
Between $\pm 0.80$ to $\pm 1.00$	Very Strong Relationship
Between $\pm$ 0.60 to $\pm$ 0.79	Strong Relationship
Between $\pm$ 0.40 to $\pm$ 0.59	Moderate Relationship
Between $\pm$ 0.20 to $\pm$ 0.39	Low Relationship
Between $\pm 0.10$ to $\pm 0.19$	Very Low Relationship

## 4.3.1 Hypotheses Testing

The purpose to perform the hypothesis testing is to disclose whether there is positive relationship between dependent and independent variables. Table 4.15 to Table 4.18 below illustrate the relationship between the factors and the respondents' job stress level. Appendix D illustrates the complete Pearson Correlation results of all the

factors. Hence, from the above discussion, the relationship between dependent and independent variables and hypothesis were explained as below:

# Hypothesis 1

# H<sub>1</sub> There is a positive relationship between negative relation factor among the government employees and job stress.

Hypothesis 1 was assessed using the Pearson correlation. The results discover that the highest correlation value was r = 0.411 which is significant at 0.01 with moderate relationship between both variables as shown in Table 4.14. As the conclusion, the relationship factor with the highest r value is **OFR6** "I frequently dispute with individual from other units/department." that correlate with job stress level; **JSS9** "I have no enthusiasm to 'face another day'. Thus, the correlation is significant with p value < 0.01.

Table 4.15: Pearson Correlation Negative Relation Factor

-		Job Stress Level (JSSS9)
Relationship Factor OFR6)	Pearson Correlation	0.411**
,	Sig. (2 tailed)	0.00
	N	167

<sup>\*\*</sup>Correlation is significant at the 0.01 level (2-tailed).

<sup>\*</sup> Correlation is significant at the 0.05 level (2-tailed).

# Hypothesis 2

# H<sub>2</sub> There is a positive relationship between workload factor among of the government employees and job stress.

Hypothesis 2 was also analyzed using the Pearson correlation. **OFW10** "I always do overtime to complete work" indicates the strongest r value among the entire item, which is; r = 0.461. Workload factor additionally correlates with **JSS9** "I have no enthusiasm to 'face another day'. The researcher would conclude that, the correlation for hypothesis 2 is also significant with p value < 0.01 and with moderate relationship as shown in table 14.5.

Table 4.16: Pearson Correlation Workload Factor

		Job Stress Level (JSSS9)
Workload Factor (OFW10)	Pearson Correlation	0.461**
	Sig. (2 tailed)	0.00
	N	167

<sup>\*\*</sup>Correlation is significant at the 0.01 level (2-tailed).

# Hypothesis 3

# H<sub>3</sub> There is a positive relationship between interpersonal factor among of the government employees and job stress.

Based on Table 4.17, the r value for hypothesis 3 is r = 0.450. It indicates that; for interpersonal factor, the correlation between **PFI1** "I often argue with friends" and **JSS9** "I have no enthusiasm to 'face another day" indicates moderate relationship. The correlation is significant with p value < 0.01.

<sup>\*</sup> Correlation is significant at the 0.05 level (2-tailed).

Table 4.16: Pearson Correlation Interpersonal Factor

		Job Stress Level (JSSS9)
Interpersonal Factor (PFI1)	Pearson Correlation	0.450**
` '	Sig. (2 tailed)	0.00
	$\mathbf{N}$	167

<sup>\*\*</sup>Correlation is significant at the 0.01 level (2-tailed).

# Hypothesis 4

# H<sub>4</sub> There is a positive relationship between physical factor among of the government employees and job stress.

Hypothesis 4 observes the relationship between physical factor and the government employees' job stress level. **PFP8** "I have been feeling tense" showed moderate relationship with the r value (r = 0.534) that correlates with job stress level **JSS9** "I have no enthusiasm to 'face another day'". Hypothesis 4 indicates the highest r value among the other three factors; relationship, interpersonal and workload even it signifies the moderate relationship towards the job stress level. The correlation of hypothesis 4 is also significant with p value < 0.00. Table 4.18 illustrates the correlation for hypothesis 4.

<sup>\*</sup> Correlation is significant at the 0.05 level (2-tailed).

Table 4.18: Pearson Correlation Physical Factor

	-	Job Stress Level (JSSS9)
Physical Factor (PFP8)	Pearson Correlation	0.534**
()	Sig. (2 tailed)	0.00
	N	167

<sup>\*\*</sup>Correlation is significant at the 0.01 level (2-tailed).

## 4.4 RESULTS AND CONCLUSION

Throughout the hypothesis analysis; the researcher could evaluate, all of the factors (relationship, workload, interpersonal and physical) have positive relationship with the job stress and showed the moderate correlations. Hypothesis 4 has shown the highest r value among all; which means most of the respondents have the stress feeling at work. For all the hypothesis analysis; each and every factors correlates with the same stress level; which is no motivation to face another day. Ultimately, the results for all hypotheses are as shown in Table 4.19 as follow:

Table 4.19: Results of the Hypotheses Test

No.	Hypotheses	Results
$H_1$	There is a positive relationship between negative relation	Supported
	factor among of the government employees and job stress.	
H <sub>2</sub>	There is a positive relationship between workload factor	Supported
	among of the government employees and job stress.	
H <sub>3</sub>	There is a positive relationship between interpersonal	Supported
	factor among of the government employees and job stress.	
H <sub>4</sub>	There is a positive relationship between physical factor	Supported
	among of the government employees and job stress.	

<sup>\*</sup> Correlation is significant at the 0.05 level (2-tailed)

#### **CHAPTER 5**

#### CONCLUSION AND RECOMMENDATION

#### 5.0 INTRODUCTION

The conclusion of the study will be further discussed in this chapter. As the consequences of the finding and analysis, the recommendation for future research will be clarified in this chapter and ultimately the conclusion.

## 5.2 LIMITATION AND RECOMMENDATION FOR FUTURE RESEARCH

Basically, some limitations have been experienced in the design of this study that might influence the interpretations and generalizations of these findings. Firstly, typical constraint such as time, cost, lack of experience and difficulty in data gathering is anticipated in this research. The data were collected in the specific time and the analysis was very restrictive. In fact, the findings from this study were derived from a cross-sectional analysis of data. Secondly, this research only concentrated on Putrajaya region.

Future research may perform similar studies to evaluate the relationship between stress factors and working environment among the government employees in other region by observing any other factors that possibly contribute toward job stress. Perhaps; future research could also perform a research study on working culture or managing change of the organizational policy, guide line and nature of work towards stress, and by viewing from other dimension such as the environmental factor towards the level of the employees stress that have not been discussed in this research.

This study has been generalized into various position level and professions. Future research should focus either within the similar position level in different department or industry; or comparative study of two or more different profession such as police and firemen.

## 5.3 CONCLUSION

Overall, the results the analysis indicates that most of the government employees in Putrajaya perceived tense feeling towards job even at the moderate level. Briner *et al.* (2004) propose that every job is different because of the individual's ability to craft or shape the job. Moreover, job redesigning is appropriate to be implemented, where the work is given to the employees in accordance to their capabilities (CUPE, 2003). In this way, stress might be decrease as the employees have been doing the right tasks according to their skills and expertise.

Stress is a universal experience in the life of employee, company and organization. It is a naturally occurring experience that may give positive or negative consequences. The negative consequences of a stressful experience are not predictable. They only result from ineffective stress management and stressful events. This study has provided a principle that job stress prevailed within the government employees, albeit the effect is at the moderate level. More or less, it has affected the contentment and performance at the workplace. Due to some indefinite conditions, the employees are also expected to work in uncertain condition and it is hard for them to discover the expectation on their job. Hence, these have caused pressures to them.

Effective stress management is advised to every employee in order to overcome and preventing the stress. As for the organization and management; new programmes and guideline to overcome stress should be prepared to increase the

passion at work among the employees are essential to ensure the excellent performance.

## REFERENCES

- Aliah Roslan (2011). Analysis of Work Stress Among Bank Employees: A Case Study of Bank Rakyat. *Published Master's project paper*, University Utara Malaysia, Sintok
- Anderson, N.B. (1998). Levels of Analysis in Health Science: A Framework for Integrating Socio-behavioral and Biomedical Research. *Annals of the New York Academy of Sciences*, Vol. 840, pp. 563-576.
- Anwar Faiz (2011). Job Stress Among Secondary School Teacher: A Study in District of Perak Tengah, Perak Darul Ridzuan. *Published Master's project paper*, University Utara Malaysia, Sintok
- Bacharach, S.B., Bamberger, P. & Conley, S.C. (1990). Work processes, role conflict, and role overload: The case of nurses and engineers in the public sector. *Work and Occupations*, Vol. 17 No. 2, pp. 199-228.
- Barrett, K. C., & Campos, J. J. (1991). A diacritical function approach to emotions and coping, in E. M. Cummings, A. L. Greene, & K. H. Karraker (Eds.), *Life-span developmental psychology: Perspectives on stress and coping.* Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers. (pp. 21-41).
- Briner, R.B., Harris, C. and Daniels, K. (2004), "How do work stress and coping work? Toward a fundamental theoretical reappraisal", *British Journal of Guidance & Counselling*, Vol. 32 No. 2, pp. 223-34.
- Baum, A. (1990). Stress, Intrusive Imagery, and Chronic Distress. *Health Psychology*, Vol. 6, pp. 653-675.
- Berjot, S., Girault-Lidvan, N., Bétremont, L., & Gillet, N. (2009). "Stress and coping with identity threats", in 23rd Annual Conference of the European Health Psychological Society, September 2009, Pisa, Italy.
- Bogg, J. and Cooper, C. (1995), "Job Satisfaction, Mental Health and Occupational Stress among Senior Civil Servants", *Human Relations*, Vol. 48 No. 3, pp. 327-41.
- Borritz, M.; Rugulies, R.; Bjorner, J.B.; Villadsen, E.; Mikkelsen, O.A. and Kristensen, T.S (2006). Burnout among Employees in Human Service Work: Design and Baseline Findings of PUMA study. *Scandinavian Journal of Public Health* 2006; 34(1):49-58.
- Brief, A.P., Schuler, R.S. & Van Sell, M. (1981). Managing Job Stress. *Little Brown & Company*, Boston, MA.

- Burke, R.J. (1988). Sources of managerial and professional stress in large organisations, in Cooper, C.L. and Payne, R. (Eds), Causes, Coping and Consequences of Stress at Work, *John Wiley & Sons*, Chicester, pp. 77-112.
- Burke, R. J. (1993). Toward an understanding of psychological burnout among police officers. *Journal of Social Behavior and Personality*, 8(3), 425–438.
- Cartwright, S., Cooper, C.L. & Whatmore, W. (2000). Improving communications and health in a government department, in Murphy, L. and Cooper, C.L. (Eds), *Healthy and Productive Work*: An International Perspective, Taylor & Francis, Basingstoke.
- Chemers, M. M., Hayes, R. B., Rhodewalt, F. & Wysocki, J. (1985). A personenvironment analysis of job stress: A contingency model explanation. *Journal* of Personality and social Psychology, 49, 628-635.
- Coakes, S. J., & Steed, L. G. (2007). SPSS: Analysis without anguish: version 14.0 for Windows. Brisbane: John Wiley & Sons Australia Ltd
- Cooper, C.L. and Baglioni, A.J., (1988). A structural model approach towards the development of a theory of the link between stress and mental health. *British Journal of Medical Psychology*, Vol. 61 No. 2, pp. 87-102.
- Cooper, C.L. & Marshall, J. (1976). Occupational sources of stress: a review of the literature relating to coronary heart disease and mental ill health, *Journal of Occupational Psychology*, Vol. 49, pp. 11-28.
- Cooper, C.L. and Payne, R. (1991), Personal ity and Stress: Individual Differences in the Stress Process, *John Wiley & Sons*, Chichester.
- Cox, T., & Mackay, C. (1976). A Psychological model of occupational stress. A paper presented to The Medical Research Council. *Mental Health in Industry*, London, November.
- Cox, T., (1993). Stress Research and Stress Management: Putting Theory to Work, HSE Contract Research Report No. 61/1993, *Health and Safety Executive*, London.
- Cox, T. & Griffiths, A. (2010). Work-related stress: a theoretical perspective, in Leka, S. and Houdmont, J. (Eds), *Occupational Health Psychology*, Wiley-Blackwell, Oxford, pp. 31-56.
- Donovan, S.B. & Kleiner, B.H. (1994). Effective stress management. *Managerial Auditing Journal*, Vol. 9 No. 6, pp. 31-4.
- Edwards, J.R. & Cooper, C.L. (1988). The impacts of positive psychological states on physical health: a review and theoretical framework. *Social Science and Medicine*, Vol. 27, pp. 1447-59

- Ferrie, J.E. (Ed.) (2004), Work Stress and Health: The Whitehall II Study, Council of Civil Service Unions/Cabinet Office, London.
- Fletcher, B. (1988). The epidemiology of occupational stress, in Cooper, C.L. and Payne, R.(Eds), Causes, Coping and Consequences of Stress at Work, *John Wiley & Sons*, Chicester, pp. 3-43.
- Folkman, S., & Lazarus, R. S. (1985). If it changes it must be a process: study of emotion and coping during three stages of a college examination. *J. Pers. Soc. Psychol.* 48, 150–170.
- Friedman, M. (1996). Type A Behavior: Its Diagnosis and Treatment. New York, *Plenum Press (Kluwer Academic Press)*, pp. 31 ff.
- Freud, S. (1978), I and the defence mechanisms. Translation Paradellis Th., *Kastaniotis Publications*, Athens.
- Harris, D.V. (1970). On the brink of catastrophe. *Quest Monograph*, Vol. 13, pp. 33-40.
- Houdmont, J., Cox, T. & Griffiths, A. (2010). Work-related stress case definitions and prevalence rates in national surveys. *Occupational Medicine*, Vol. 60 No. 8, pp. 658-61.
- Ivancevich, J.M. & Matteson, M.T. (1978), Stress at Work, Scott, Foresman and Company, Chicago, IL. See also Blau, B. Understanding Mid-career Stress. *Management Review*, Vol. 67, pp. 57-62
- Ivancevich, J.M. & Matteson, M.T. (1980), Stress and Work: A Managerial Perspective, *Scott, Foresman and Company*. Glenview, IL.
- Jex, S.M. (2002), Organisational Psychology: A Scientist-Practitioner Approach, *Wiley*, New York, NY.
- Johnson, R.B., & Christensen, L.B. (2000). Educational research: Quantitative and qualitative approaches. *Allyn and Bacon*, Boston
- Johnson, S.; Cooper, C. L.; Cartwright, S.; Donald, I.; Taylor, P. & Millet, C. (2005). The experience of work-related stress across occupations. *Journal of Managerial Psychology*. 20(2). 178-187.
- Kahn, R. L., & Byosiere, M. (1992). Stress in organizations. In M. D. Dunnette & L.
  M. Hough (Eds.), *Handbook of Industrial & Organizational Psychology*, 2(3), 571-650. Palo Alto, CA: Consulting Psychologists Press.
- Kaifeng, Y., & Marc, H. (2006). The performance-trust link: Implications for performance measurement. *Public Administration Review*, 66(1):114-126.

- Kim, B.S.: 1994, 'Psychological burnout and job involvement for public officials', *Korean Public Administration Review* 28, pp. 1279-1299.
- Kirkcaldy, B.D. & Martin, T. (2000). Job Stress and Satisfaction among Nurses: Individual differences. *Stress Medicine*, Vol. 16, pp. 77-89.
- Lazarus, R. S., & Folkman, S. (1984). Stress, Appraisal and Coping. New York: Springer.
- Lazarus, R. S. (1991). Emotion and Adaptation. New York: Oxford University Press.
- Leiter, M.P. & Maslach, C. (1988). The impact of interpersonal environment on burnout and organizational commitment. *Journal of Organizational Behaviour*, Vol. 9 No. 4, 1988, pp. 297-308.
- Malhotra, N. K. (2004) Marketing research: an applied orientation, 4th edition, *Prentice-Hall International*, London.
- Matteson, M.T. and Ivancevich, J.M. (1987), Controlling Work Stress, *Jossey-Bass*, San Francisco, CA.
- McHugh, M. (1997). The stress factor: Another item for the change management agenda? *Journal of Organizational Change Management*, 10(4), 345-362.
- McLeod, S. A. (2008). Likert Scale Simply Psychology. Retrieved from http://www.simplypsychology.org/likert-scale.html
- Myers, M. (2000). Qualitative research and the generalizability question: Standing firm with Proteus. *The Qualitative Report*, 4(3/4). Retrieved from http://www.nova.edu/ssss/QR/QR4-3/myers.html
- Naemah Othman. (2007). A assessment of work stress level at Asian Composite Manufacturing (ACM) Sdn. Bhd. *Published master's project paper*, University Utara Malaysia, Sintok.
- Nelson, D.L. & Burke, R.J. (2000). Women executives: health, stress, and success. *Academy of Management Executive*, Vol. 14 No. 2, pp. 107-21.
- Peter G. Hanson, MD,(1986). The Joy of Stress. Kansas City: Andrews, McMeel and Parker, 11.
- Pratchett, Lawrence. (1999). New Technologies and the Modernization of Local Government: An Analysis of Biases and Contraints. *Public Administration* 77(4):731-50
- Sauter, S. L., Lim, S.-Y., & Murphy, L. R. (1996). Organizational health: A new paradigm for occupational stress research at NIOSH. *Japanese Journal of Occupational Mental Health*, 4, 248–254.

- Sekaran. U. (2003). Research Method For Business: A Skill-Building Approach, (4th ed.). New York: John Wiley & Sons, Inc.
- Selye, H. (1956) The stress of life, McGraw-Hill, New York, NY.
- Selye, H. (1964), From Dream to Discovery, McGraw-Hill, New York, NY.
- Selye, H. (1974), Stress without Distress, J.B. Lippincott, Philadelphia, PA
- Selye, H. (1987). Stress without Distress, Transworld, London, in Le Fevre, M., Matheny, J., Kolt, G. (2003). Eustress, Distress and Interpretation in Occupational Stress. *Journal of Managerial Psychology*, Vol. 18 No 7, pp.726-744.
- Siegrist, J. (1996), "Adverse health effects of high-effort low-reward conditions", Journal of Occupational Health Psychology, Vol. 1 No. 1, pp. 27-41.
- Skinner, C., and Brewer, N. (2002). The dynamics of threat and challenge appraisals prior to stressful achievement events. *J. Pers. Soc. Psychol.* 84, 60–70.
- Sparks, K. and Cooper, C.L. (1999), "Occupational differences in the work-strain relationship: towards the use of situation specific models", *Journal of Occupational and Organizational Psychology*, Vol. 72, pp. 219-29.
- Spector, P.E., (1988) "Development of a work locus of control scale", *Journal of Occupational Psychology*, Vol. 61, 1988, pp. 335-40.
- Spielberger, C. (1980). Preliminary manual for the state-trait anger scale. *Tampa*, FL: University of South Florida.
- Sulsky, L. and Smith, C. (2005). Work Stress. Thomson Wadsworth, Belmont, CA.
- Trades Union Congress (TUC) (2008), Stress, Trades Union Congress, London, available at: www.tuc.org.uk (accessed January 2, 2008).
- Waters, J. A., & Ussery, W. (2007). Police stress: History, contributing factors, symptoms, and interventions. Policing: *An International Journal of Police Strategies and Management*, 30 (2), 169–188.
- Workplace Health and Safety Queensland (2011) Cost of Workplace Incidents in Queensland: 2009-10 Update (Last Update 05 September 2012)
- Zafir and Fazilah (2006). Stres di tempat kerja dan kesannya terhadap keselamatan dan kesihatan pekerjaan. *Malaysian Journal of Community Health*. 12. 37-46.

## Website References

http://changingminds.org/explanations/stress/cognitive-relational.htm

http://definitions.uslegal.com/g/government-employee/

http://pmid.us/16449044.

http://rphrm.curtin.edu.au/1996/issue1/cognitive.html

http://wikieducator.org/Introduction\_to\_Stress\_Theory

http://www.frontiersin.org/educational\_psychology/10.3389/fpsyg.2011.00033/full

http://www.emotrics.com/people/milton/papers/presenceEmot/#ref13