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The sources and the impacts of occupational stress among manufacturing workers

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A B S T R A C T

Occupational stress is the most common and most important type of stress in people in the modern society. The study was explored the definitions, sources and impacts of occupational stress. The objectives of the research was (1) to determine the sources of occupational stress, (2) to identify the impacts of occupational stress, (3) to determine the relation to individual differences (gender, age, marital status, working experience, and working hours). Occupational stress affects the performance of workers by reducing efficiency and productivity, industrial. The research will raw data collected from the questionnaire were analyzed accordingly to research objectives.

Introduction

Occupational stress is a global issue in modern life (Smith, 2000; Lu *et al.*, 2003; Chang and Lu, 2007). It can be defined that as unpleasant or negative experience (Spector, 2008) and it referred to work stress and job stress (Geving, 2007; Spector, 2008). Therefore, many organizations are increasing concern on employee stress. According to Williams and Cooper (2002), work stress is one of the main issues in the occupational safety health and organizational welfare.

As an individual felt themselves experiences the work stress, it will make them weak physiologically, behaviourally and psychologically (Beehr and Newman, 1978). Hence, stress leading healthy problems such

as depression and burnout, musculoskeletal disorders, cardiovascular diseases, and gastrointestinal are the common problems (Minter, 1999). However, some stress may be positive to individuals regard to challenge and motivation (Selye, 1976) and may be negative psychological impact felt stress or distress (Luthans, 2010) a significant level of adverse affects individuals over time.

Definition of occupational stress

Occupational stress may be stated as the harmful emotional and physical reactions that occur when the worker cannot qualify the requirements (National Institutes for Occupational Safety and Health, 1999, p. 6). Cox (1992) described stress as when unable

to cope with the demands of one's environment, and realisation concern to the person, both are related a negative responses. Erkutlu and Chafra (2006) conceptualized that the meaning of stress similar with Cox (1992), which is the response of individual to demands forced them, which is individual fail to cope the demands of the environment.

Stress is the result of an action against with a reaction, an emotional and physical response (Hellriegel *et al.*, 1983). In particular, occupational stress is that inability to deal with pressures in workplace (Ree, 1997), because of the person without the ability to fulfill working requirements and working conditions (Holmlund-Rytkönen and Strandvik, 2005).

Sources of occupational stress

Stress, which originated from causes negative psychological, behavioural and physical outcomes on an individual, and causes with lack of performance, late coming, absence, increasing work power transfer, job insecurity, and workplace accidents (Melendez and de Guzman, 1983; Seldin, 1987; Dua, 1994; Boyd and Wiley, 1994; Mackay *et al.*, 2004; Stacciarini and Troccoli, 2004; Mansor *et al.*, 2003; Fairbrother and Warn, 2003; Yilmaz and Ekici 2003; Antoniou *et al.*, 2003, Sharpley *et al.*, 1996; Brown *et al.*, 1986; Ugoji and Isele 2009).

According to Cooper and Marshall (1976) found that there are 5 major causes of occupational stress which is inherent profession items, roles of individual in the organization, career development, in-working relationships and organizational structure and organizational climate. Besides that, Murphy (1995) categories that the sources of occupational stress in Table 1.

On the other hand, Lu *et al.* (2003) defined that job stressors into 6 categories: role stressors, career development, relationship with each others, physical environment, work-family conflict, and organizational structure and job characteristics, while Antoniou *et al.* (2006) identified that sources of occupational stress can be divided to 2 groups, which is exogenous (working condition, workload, lack of teamwork) or endogenous stress (individual's personality traits). Table 1 shows that the sources of occupational stress divided: job-related stressors and individual-related stressors.

Impacts of occupational stress

Stress affects the employees in an organization probably because shortage of time, heavy workload, conflict of roles, working condition, job and relationships between individuals (David and Newstrom, 1988). Menon and Akhliesh (1994) conceptualized that stress affects the individual's adjustment which is their performance and the productivity.

Besides that, the occupational stress can negatively affect employee absence (Cooper and Cartwright, 1994), turnover and health problems (Cooper, 1986; Kalimo and Vuori, 1991; Guppy and Gutteridge, 1991; Farrington, 1995), low performance (Kohler and Kamp, 1992; Pitariu *et al.*, 2009; Pitariu and Chraif, 2009; Chaif, 2008), individual workers highlighting counterproductive work behaviour (Chraif, 2010) and it described as a main managerial and economic issue.

A study conducted by Grimshaw (1999) showed that long-term exposure to stress and disease, including coronary heart disease, hypertension, some forms of cancer, depression, anxiety, stomach and strokes.

A lot of the researchers have found that occupational stress affecting individuals and organizations. In organizational settings, stress nowadays becomes a major contributor to an individual's health and performance issues, and unnecessary events

and organizational costs. Hence, a lot of researchers divided occupational stress into 2 groups which is individual level and organizational level. There are 3 subgroups on the individual level:

Individual Level ¹	Organizational Level ²
Physiological diseases - headaches, injuries and fatigue, increase pulse rate and blood pressure, cardiovascular disease, high blood sugar and high cholesterol, insomnia, skin problems, infections, and immune system suppression.	Organizational costs - reduced productivity and performance, high replacement costs (labour turnover), increased disability payments, health care costs and sick pay, , higher cost of equipment damage, complaints and compensation costs.
Psychological diseases - depression, psychological distress, boredom, anxiety, loss of concentration, self-esteem and self-confidence, impulsive feelings and social norms, dissatisfied with the work and life, divorced from reality, and emotional fatigue.	Organizations symptoms - productivity loss, poor communicate and relationships with customers, suppliers, and partners, lost customers, negative publicity, damage reputation and image, interruption of production, high accident rates and error rates, high labour turnover, loss of valuable employees, increased sick leave.
Unwanted feelings and behaviours - low motivation, job dissatisfaction , less organizational commitment, reducing the overall quality of working life, turnover, absenteeism, plans to leave the job, reduced efficiency, work quantity and quality, inability to make the right decisions, burnout, alienation, smoking and alcohol intake increases.	

¹Compiled using: Chusmir and Franks (1988), Comish and Swindle (1994), Dua (1994), Lind and Otte (1994), Ben-Bakr *et al.* (1995), Johnson and Indvik (1996), Earnshaw and Morrison (2001), and Antoniou *et al.* (2006).

²Compiled using: McHugh (1993), Schabracq and Cooper (2000), Hoel *et al.* (2001), and Ross (2005).

Table.1 Sources of occupational stress

Categories of Job Stressors	Examples
Factors unique to the job	<ul style="list-style-type: none"> -Workload (overload and underload) -Pace/variety/meaningfulness of work. -Autonomy (e.g., the ability to make your own decisions about your own job or about specific tasks) -Shift-work / hours of work -Physical environment (noise, air quality, etc.) -Isolation at the workplace (emotional or working alone)
Role in the organization	<ul style="list-style-type: none"> -Role conflict (conflicting job demands, multiple supervisors / managers) -Role ambiguity (lack of clarity about responsibilities, expectations, etc.) -Level of responsibility
Career development	<ul style="list-style-type: none"> -Under / over-promotion -Job security (fear of redundancy either from economy, or a lack of tasks or work to do) -Career development opportunities -Overall job satisfaction
Relationships at work (interpersonal)	<ul style="list-style-type: none"> -Supervisors -Co-workers -Subordinates -Threat of violence, harassment, etc. (threats to personal safety)
Organizational structure / climate	<ul style="list-style-type: none"> -Participation (or nonparticipation) in decision-making -Management style -Communication patterns

Source: Murphy, L. R. (1995). *Occupational Stress Management: Current Status and Future Direction in Trends in Organizational Behaviour* (pp. 114), Vol. 2.

Table.2 Sources of occupational stress

Environment specific	Organization specific	Job specific
Economic conditions	Changes within organization	Poor fit between abilities and skills needed to perform job effectively
Increased levels of competition	Reorganizations	Work overload
Technological development	Leadership	Work pace
Changes in production and products	Layoffs	Pressure to work longer hours
New forms of organization and product development	Organizational culture climate	Job characteristics
Drive for greater cost-effectiveness	Mergers, acquisitions and similar	Conflicting job demands
Networks	Changes of company ownership	Unclear job expectations
Multinationals	Workforce diversity	Pressures of responsibility
General public concern for the environment, etc.	Promotion policies	Time pressures
	Job security	Lack of information
	More training needed, etc	Working conditions
	.	Physical danger, etc.

Individual-related stressors

Individual characteristics	Individual life circumstances
Personality traits	Work life conflict
Demographic characteristics	Family problems
Coping skill, etc.	Personal problems
	Social problems
	Financial problems

Source: Cooper and Marshall (1976); Chusmir and Franks (1988); McHugh (1993); Dua (1994); Hurrell *et al.* (1988) Murphy (1995); Fulcheri *et al.* (1995); Jamal (1990) in Montgomery *et al.* (1996); Blake *et al.* (1996); Montgomery *et al.* (1996); Rees (1997); Schabracq and Cooper (2000); Burke (1988) in Lu *et al.* (2003); Antoniou *et al.* (2006)

Conclusion

This study used conceptual framework to identify the definitions, sources and impacts of occupational stress and determine the relation to individual differences based on the demography (gender, age, marital status, working experience and working hours) among industrial worker in Pekan Nanas, Johor. Method will be using in this study is questionnaire as primary data and secondary data is adequate from books, journals, online articles and previous study.

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