

## Health Hazard of Work Related Stress

Muhammad Bilal Azmi,<sup>1</sup> Shamim Akhtar Qureshi,<sup>2</sup> Tooba Lateef<sup>3</sup> and Hafiz Muhammad Arshad<sup>1</sup>

### ABSTRACT

The objective of this survey is to enlighten the health hazard of extra working hours in different national and multinational organizations at different employment levels and development of stress. It confirms that though majority of employees were satisfied with the nature of their job but their job environment was less friendly and more stressful. In addition, work related stress in both high and low paid employees not only make them to ignore daily needs but also to create imbalance in their social life equilibrium. The mean blood glucose levels  $\geq 140$  mg/dL was observed in employees during working hours. The results showed that the persistent job related stress, either psychological or environmental, have an adverse impact on employee health which gradually and silently influence physiological condition and may leads to some acute and chronic diseases like hypertension, diabetes, and depression.

**Key words:** Work related stress, Health hazard, Hypertension, Diabetes.

### INTRODUCTION

Working practice of an organization varies due to the influence of global recession and therefore many organizations are inclined towards the trend of cost effectiveness. Job life is one of the major factors of one's daily life that causes great stress because of highly competitive environment of the organization. People throughout the world are spending their time for job related work by ignoring the job stressors, which influence their work and life both.<sup>1</sup> Stress also results from a divergence between the demands and pressures on the person, as well as their knowledge and abilities.<sup>2</sup> The professional people like engineers, architects, bankers and even health care workers including medical and para-medical staff often work far longer than their actual working hours.<sup>3</sup> Previous researches have shown that job stressors, such as long working hours adversely affect physical and psychological health of an individual.<sup>4</sup> Occupational stress therefore is becoming the single greatest cause of occupational diseases<sup>5</sup> and may have far-reaching consequences for the worker as well as the workplace.<sup>6</sup>

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1. Dow College of Pharmacy, Dow University of Health Sciences, Karachi, Pakistan.

2. Department of Biochemistry, University of Karachi, Karachi, Pakistan.

3. Department of Biochemistry, Jinnah University of Women, Karachi, Pakistan.

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Correspondence: Muhammad Bilal Azmi, Dow College of Pharmacy, Dow University of Health Sciences, Karachi, Pakistan.

E-mail: azmibilal@gmail.com

The impact of overwork on health either imposed by organization or due to an urge for higher earning has been of major concern since late 19<sup>th</sup> century.<sup>7</sup> Stressful working conditions can also have an indirect impact on employee well-being by limiting an individual's ability to make positive changes in lifestyle or by directly contributing to negative health behaviours.<sup>8</sup> A number of studies have identified stressors including family losses and workplace stress trigger the onset of different diseases, such as diabetes (both type I and II)<sup>9</sup> and high blood pressure.<sup>10</sup> Stress actually, through its effect on sympathetic nervous system, can have profound effects on glucoregulatory system, potentially leading to the development of diabetes and poor glycemic control.<sup>11</sup> Beside this, work related stress can also be associated with a range of debilitating health outcome including cardiovascular diseases,<sup>12-13</sup> depression and anxiety,<sup>14-15</sup> musculoskeletal problems,<sup>16-17</sup> or alcohol dependence.<sup>18-19</sup>

### OBJECTIVE OF THE STUDY

The objective of this survey was to enlighten the health hazard of extra working hours in different organization at different employment levels and development of stress which may decreases the working productivity and performance of employees.

### METHODOLOGY

This survey is based on a questionnaire developed to get information relating to the organizational working practice. A total of 50 male healthy employees were selected aged between 25-50 years, working at different

employment levels, including Top, Middle management and at Operational levels, in different national and multinational organizations of Karachi. Employees with known chronic diseases like diabetes, hypertension, migraine and asthma etc were excluded from the study.

Verbal consent was taken from study subjects before handing over the questionnaire, with an assurance for confidentiality of information.

The prepared questionnaire contained different variables relating to the organizational working practices like nature of job and job satisfaction, official timing of organization, daily working hours spent by employees (self or imposed by organizational management), nature of working environment, balance between social and job environment, physical conditions of employees after working hours, having meal on proper time, blood glucose level maintained during working, family history of employees related to diabetes.

The blood glucose level of all study subjects (during working) was measured by glucometer (*Optium Xceed*, Diabetes Monitoring system by Abbott). It was made sure that study subjects had last meal before two hours of measuring glucose level. The standard blood glucose level was set according to the American Diabetes Association, which describes the guidelines for blood glucose level and in combination with normal ranges continual elevated blood glucose level might become a health hazard.<sup>20</sup> The data of this survey is mentioned as percentage (%) of employees.

## RESULTS

### 1. Employees Perspective and Organizational Trends

Majority of employees (88%) were satisfied with their occupations. The total time paid by 82% employees to their organization was greater than 8 hours and 62% claimed that working environment as stressful because of extra-working hours (Figure 1).

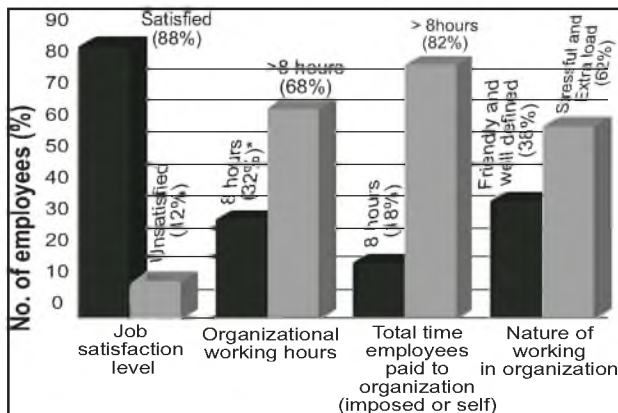


Figure 1: Employees Perspective and Organizational Trends

### 2. Trend of Employees Physical Condition

The majority of employees (94%) become tired and lazy at the end of their routine practice, 82% confirmed that they could not make balance among social life equilibrium. The development of stress was notice in both high and low paid employees (Figure 2).

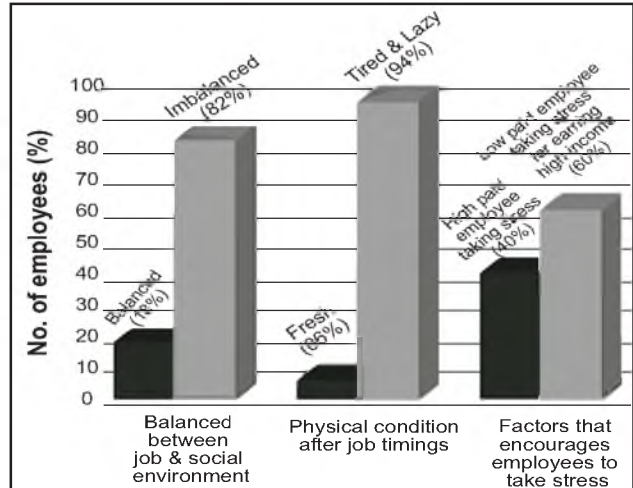


Figure 2: Trend of Employees Physical Condition

### 3. On Job Assessment of Meal Habit, Blood Glucose level and Family History of Diabetes

It describes that development of stress to complete work on time also affects the daily needs of employee as 68% confirmed the irregular practice of having meal during working timings while only 32% of employees took their meals on regular daily timings. Similarly, 74% employees have showed mean blood glucose levels  $\geq 140$ mg/dL during working hours even they have had lunch 2 hours before its estimation. Presence of diabetes in family histories of all participants was also recorded (Figure 3).

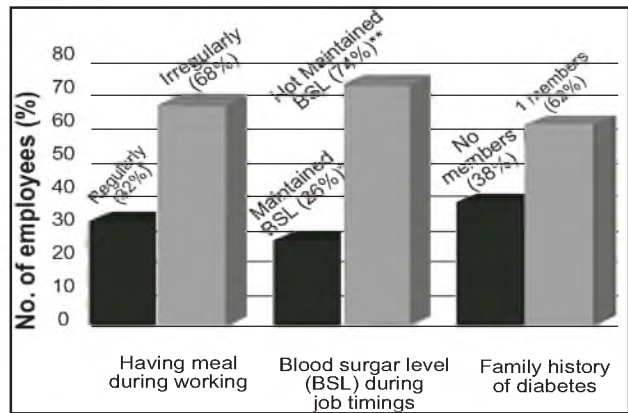


Figure 3: On Job Assessment of Meal Habit, Blood Glucose Level and Family History of Diabetes

## DISCUSSION

Top to lower operational levels of different national and international organizations related to academics, banking, engineering, healthcare sector etc were selected in the present survey. In which the majority of employees were satisfied with the nature of their job and professional responsibilities. The extra working hours exist in all selected organizations and majority of both the high and low paid employees were involved in extra working (i.e., >8 hours) either obligatory to fulfill professional responsibilities or self interest for earning high income respectively. However stress due to overworked has an adverse impact on health, which gradually and silently influences the physiological status of employee.<sup>4</sup> This finding indirectly supports the key objective of the survey that was the development of stress which might become a cause for decrement in work productivity and performance of employees in near future.

Majority of participants expressed that the organizational environment was less friendly and more stressful because of the high competitive culture. As a result of which majority of employees could not take their meals on proper time, even they showed mean blood glucose level  $\geq 140$ mg/dL, though they had lunch 2 hours before its estimation. Hence, it again strengthens the concept of overwork related stress.<sup>1</sup> Stress may be defined as a situation which forces a person to deviate from normal functioning due to the change (disrupt/enhance) in his psychological and/or physiological status.<sup>21</sup> Normally person has an ability to work for 6-8 hours and willing to takes lunch on time regularly. The present survey reveals that because of overwork employee deviates from the normal functioning and starts working for more than 8 hours, by completely ignoring the personal daily needs. As a result of which the majority of employees became tired and lazy in accomplishment of their professional responsibilities, which is another alarming factor for job related stress. The job related stress also has an impact on person's social life, a majority of employees (82%) could not keep balance between their social and professional life as they spend most of the time for the fulfillment of job related tasks.

Biochemically it has been suggested that stress and its consequences on individuals' body, may directly or indirectly disturb the human endocrinology and homeostasis. The persistent stressors (either physiological, psychological or environmental stress

inducing stimuli) alters the glucoregulatory systems of the body and may cause other important occupational hazards such as hypertension, diabetes, cardiovascular diseases etc.<sup>9-11</sup> Studies also suggested that an exaggerated hyperglycemic response to stress in a euglycemic individuals (non-diabetic) may cause a high propensity for diabetes and other clinical manifestation.<sup>11</sup>

## CONCLUSION

Extra working is now becomes an important feature of professional life not only to meet the demands of competition exist in professional world but also to fulfill financial needs of one's life in order to achieve luxuries or better life-style. On one hand, these extra-working hours no doubt makes the person's dreams come true and on the other hand these silently influence the mental and physical/physiological status of employees.

The result of present survey concluded that employees in different national and multinational organizations related to academics, banking, engineering, healthcare sector etc are engaged in extra-working hours either obligatory or due to personal interest. No doubt majority of employees are satisfied with the nature of their job but their working environment is stressful and they are spending more time in job related work which not only disturbs their social life but also make them to ignore their personal daily needs like taking meal on time regularly. This condition invisibly induces a persistent stress in employees' life which may leads to development of chronic diseases such as hypertension, diabetes, cardiac problems in near future. Therefore to combat the health hazard of work related stress, both employers and employees are responsible to minimize stressors in professional environment. Employers in this regard must adopt strategies and policies related to work load management keeping in view the employees health and provide what is best for their subordinates and employees must learn the concept of time management to overcome work related stressors.

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