Number of Working Hours and Male Employees’ Psychological Work-stress Levels

Zainab F. Zadeh & Kiran Bashir Ahmad
Bahria University,
Karachi, Pakistan.

The present study aimed at exploring the difference in male employees’ psychological work-stress levels. A total of 70 participants from Karachi participated in the study. Their aged ranged from 24 to 34 years. A self-constructed Psychological Work-Stress Questionnaire along with a Demographic Information Questionnaire was administered. It was hypothesized that the level of psychological work stress will be higher in male employees working more than 40 hours per week as compared to those working less than or equal to 40 hours per week. The questionnaire was found to be reliable (Cronbach’s Alpha = .70). The research findings show a significant difference between psychological stress of male employees working for more than 40 hours per week and those working for less than or equal to 40 hours per week (p<.01).

Keywords: working hours; psychological work stress; adult employees; nature of job.

Countless events create stress. According to Holmes and Rahe (1967), any life changes, including work related life events requiring readjustments can be perceived as stressful. Stress is a condition of strain on one’s emotions, thought processes, and physical conditions. Generally, a certain level of stress is positive and leads to high levels of motivation and performance. When it is excessive, it can impede effective life functioning. It usually manifests itself through physical symptoms (like insomnia or headaches) and behavioral symptoms (such as irritability). That can lead to more serious medical ailments, social problems, and marital and family problems (Cooper, Dewe, & O’ Driscoll, 2001; Dahlgren, 2006).

Job related stress can result from several factors at the psychological level like jobs with substantial overload (Margolis,
Kroes, & Quinn, 1974) or high degree of role conflict and ambiguity (Kahn, Wolfe, Quinn, Snock, & Rosenthal, 1964). Workers having simplified, fragmented, and repetitive jobs with a rigid work schedule have a higher level of anxiety, depression, and irritability than workers doing the same jobs with a flexible schedule (Stagner, 1975). Current perspectives on burnout suggest a risk when people perceive a chronic disturbance between their input (effort, time) and the output (material and immaterial rewards) in their work (Siegrist, 1996). Hence, physical and intellectual exertion in terms of long working hours is experienced as stressful because it challenges individual limits and can serve as a major contributor to elicit stress responses such as burnout or depression.

Employees suffering from stress or other illnesses tend to have lower performance levels along with a decline in commitment towards their work and organization. Families have been reported to be affected by long work hours, as it prevents employees from giving adequate time and attention to their children and spouses (Major, Klein, & Ehrhart, 2002).

Arnold, Robertson, and Cooper (1995) have identified five workplace stressors including factors intrinsic to the job such as noise, lighting, temperature, long hours, work overloads, and work under load. Freid, Melamed, and Ben-David (2002) found that the joint effect of noise and job complexity was a strong predictor of sickness absence (controlling for somatic complaints) in their sample of 802 white collar workers in Israel.

Recent work on stress, spawned largely by theoretical developments (Lazarus, 1999) is looking at the role played by emotion in stress and its appraisal (Dormann & Zapf, 2002; Harris, Daniels, & Briner 2003). Dormann and Zapf (2002) found that irritation substantially accounted for the impact of social stressors and caused an increase in anxiety and decrease in self-esteem.

Most European countries implemented a standard 40-hour workweek by the 1970s. By the mid-1970's many factories, offices, and government agencies had changed to a 4-day workweek schedule. This usually involves either 4 days at 10 hours a day (thus maintaining the 40-hour week or 4 days at 9 hours a day (a 36-hour week with no reduction in pay). Reports from companies that have adopted the 4-day workweek are generally full of praise for it, citing improved job satisfaction and productivity, reduced absenteeism, and easier scheduling of work. The major complaint is greater fatigue, but the employees themselves were almost unanimous in approving this type of work schedule (Levine, 1987). Therefore, 40-hours per week were
and are still considered to be standard working hours with an excess amounting to a violation of human rights.

A study conducted at Dunedin report that work place factors like long hours, tight deadlines, or pressure from supervisors have been found to be associated with clinical depression in both men and women in their thirties. With men reporting higher psychological and physical work demands and lower social support as compared to women (Melchior et al., 2007).

The purpose of the present research was to study the difference in male employees’ psychological work-stress levels. They were later divided into two groups based on the number of their working hours per week being either greater or less than/equal to 40 hours per week. This figure which was taken as the standard for optimum level. Pakistani society is primarily male dominated. As males carry the burden of providing for the family, the stress perceived by males and females may differ. Therefore, only male participants were considered, to control individual and cultural factors. The study aims to reflect the full range of working hours experienced by male desk job employees, providing a rich diversity of individual differences, allowing further discussion. Thus, it was hypothesized that the level of psychological work stress will be higher in male employees working more than 40 hours per week as compared to those who work less than or equal to 40 hours per week.

Method

Sample

The sample size of 70 desk job male employees aged between 24-34 years were selected from different multinationals, NGOs (non-governmental organizations), architecture and engineering firms, and publication departments of Karachi. These 70 participants were later divided into two groups, based on the total number of working hours per week placing employees with more than 40 working hours per week in the first group and those with less than or equal to 40 hours per week in the second group. Matched sampling technique was used and the groups were matched considering following variables:

1) Age range was limited between 24 – 34 years.
2) Gender wise the sampler consisted of male employees only.
3) All respondents held desk jobs involving mental work.
4) The income did not exceed Rs. 30,000 per month.
**Instruments**

**Demographic Information Questionnaire.** This questionnaire was used to measure the total number of working hours. Additional information tapped by this questionnaire included age, gender, educational status, marital status, designation/ job description, salary per month, total number of working hours per day excluding the working hours on Friday, total number of working hours on Friday, and total time period of lunch break.

**Psychological Work-Stress Questionnaire.** This self constructed questionnaire was used to find out the corresponding stress level. The alpha reliability of the scale was calculated to be .70. The scale consists of 24 statements. The scoring categories were based on a four point rating scale: 1 for *Hardly Ever*, 2 for *Sometimes*, 3 for *Frequently*, and 4 for *Always*. A maximum score of 96 could be obtained, high scores on the questionnaire suggested high stress level. Item number 3, 9, 15, 18, 21, and 24 were reverse keyed items.

The questionnaire then evaluated stress levels falling in the category of 1-24 as *Low Stress Levels*; those falling in the category of 25-48 as *Steady State*; those falling the category of 49-72 as *High Stress Level*; those falling the category of 73-96 as *Stress Burnouts*.

Work stress levels were calculated via the following three factors, Negative Outlook, Job Satisfaction, and Organizational Commitment.

**Negative Outlook** measures the internal affective orientation or feelings and emotions that would explain the actions of a person such as irritation, anxiety, low self-esteem, or hostility. Negative feelings and emotions can be seen in an individual having a negative outlook such as being worried, upset, or being in a bad mood to even feeling angry, scornful, or openly bitter. A worker might experience a low level of job satisfaction or organizational commitment as a result of his negative outlook.

**Job Satisfaction** is the collection of feelings and beliefs that people have about their work. This includes their attitude towards their jobs as a whole and various aspects of their work such as the type of work they are required to perform, their relations with subordinates, colleagues and supervisors or their satisfaction regarding their pay scales.

**Organizational Commitment** is the collection of feelings and beliefs that people have about their organization as a whole such as promotional practices, quality of their organizations products, or organizational stance on ethical issues. The attitude towards the
organization is then reflected in varied aspects such as the willingness to stand up for the organization in dealing with workplace issues within the work environment, when confronted with rival organizations at a time of crisis and in promotion of the workplace at personal and professional levels. Eight questions were formulated for each factor.

Procedure

To collect data for the present study, purposive sampling technique was used. The questionnaires were administered to 70 participants. Both the demographic information questionnaire and psychological work stress questionnaire were administered individually. Purpose and intent of the study was explained to each respondent. The analysis was carried out to assess the levels of psychological stress amongst the participants.

Results

The reliability statistics for the self-constructed Psychological Work-Stress questionnaire show Cronbach’s Alpha to be reliable at .70 (See Table 1).

Table 1

| Mean, Variance, Standard Deviation, and Cronbach’s Alpha Computed for the Psychological Work-Stress Questionnaire (N=70) |
|---|---|---|---|
| Number of Items | $M$ | $SD$ | Cronbach’s Alpha |
| 24 | 51.09 | 9.411 | .70 |

Table 2 shows the $t$-test value and analysis of the sample data of 70 male desk job employees including the ranges of their psychological stress levels as given by the work-stress questionnaire used compared with the total number of working hours as being more than or less than and equal to 40 hours per week.
Table 2  
Mean, Standard Deviation, and t-scores of Male Employees' Psychological Work-Stress Levels (N = 70)

<table>
<thead>
<tr>
<th>Working Hours</th>
<th>M</th>
<th>SD</th>
<th>M</th>
<th>SD</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 40 (n=43)</td>
<td>53.84</td>
<td>9.436</td>
<td>46.70</td>
<td>7.66</td>
<td>3.30*</td>
</tr>
<tr>
<td>&lt; 40 (n=27)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ df = 68; * p < .01. \]

Discussion

This study was specifically concerned with comparing the psychological stress level of the male employees working more than 40 hours per week with the employees working less than or equal to 40 hours per week. It was hypothesized that the level of psychological work stress will be higher in male employees who work more 40 hours per week as compared to those who working less than or equal 40 hours per week. The results show Cronbach's Alpha as reliable at .70.

The results of the t-test reveal the significant difference between the psychological work-stress levels of the two groups (\( t = 3.31; df = 68; p < .01 \)) between male employees working for more than 40 hours per week and those working for less than or equal to 40 hours per week as regards their likelihood of being psychologically stressed.

Thus the findings ascertain that the demand of most countries for a shorter working day since the middle of the 19th century was quite justified. Nowadays as the mental work capability of desk job employees has been further enhanced by technological progress, it is in order that the standard 40-hour week is established in Pakistan as well, as has already been the case in various countries such as the United States, Australia, Canada, France, and others.

The costs organizations incur from job-related stress are high. One of the major concerns of long work hours is the incidence of stress, which has many negative direct consequences, as well as causing other illnesses. Long work hours also affect social cohesion, as employees do not have the time and energy to allocate to their
families, community and other personal interests and of allocating family time to work pursuits.

Managers may believe that their companies are benefiting when employees work long hours. The reality, however, is that once employees reach the point where they are experiencing stress due to overwork and long work hours, the implications for organizations are negative. High levels of work-related stress result in lower levels of performance and commitment from employees. Illnesses resulting from stress lead to increased rates of absenteeism. In some instances, employees in high stress situations must take a leave of absence from work to physically and mentally recover.

In a developing country like Pakistan, where the economic level is already low the study becomes even more relevant in the sense that it mentally prepares us for what the future holds if the current work hours trends persist. The fresh male graduates who are currently working for more than 40 hours per week show the incidence of high stress even in the prime of their youth. It remains to be seen if the consequences of this prolonged stress in time result in health concerns at a later age – a fact, which has a definite impact on the health sector in general and the country’s economy in particular.

References


Received April 07, 2007.
Revision received June 14, 2008.