

# Prevalence and Factors Affecting Job Strain Among The Managers in Primary Health Care Services in Turkey

Yücel Demiral<sup>1</sup> , Bülent Kılıç<sup>1</sup> , İbrahim Padır<sup>2</sup>

<sup>1</sup>Dokuz Eylül University Medical Faculty, Public Health, Izmir, Turkey

<sup>2</sup>Dokuz Eylül University Medical Faculty, Public Health, Izmir, Turkey

<sup>3</sup>Konak Health District, Izmir, Turkey

**Address for Correspondence:** Yücel Demiral. **E-mail:** yucel.demiral@gmail.com

**Received:** 26.12.2017; **Accepted:** Jan 05.01.2018; **Available Online Date:** 09.02.2018

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## Cite this article as:

Demiral Y, Kılıç B, Padır İ. Prevalence and Factors Affecting Job Strain Among The Managers in Primary Health Care Services in Turkey. J Basic Clin Health Sci 2018;2:25-28. <https://doi.org/10.30621/jbachs.2018.200>

## Abstract

**Purpose:** Stress at work is one of the risk factors of occupational health and safety in industrialized and developing countries. Working in the health care services has been accepted as one of the most stressful jobs. The aim of this study is to define stress and contributing factors of job strain in managers in the primary health care services.

**Methods:** A cross-sectional study was conducted to determine prevalence and factors affecting job strain in primary health care managers. A standardized self-administered questionnaire was used for stress assessment with a second questionnaire for socio-demographic factors and working life features. Turkish version of the Swedish Demand Control Questionnaire was used. A total of 55 managers were recruited from Health District in Izmir. A second questionnaire was used to obtain information on socio-demographic and working life features.

**Results:** Among the total of 55 managers, 54 (98%) responded the questionnaire. The mean age was 40±8 years; 21 (39%) were insecure or partly secure managers. The job strain was found in 71% of the insecure group compared to 36% more secure managers (p=0.026). The job insecurity was a significant risk factor for job strain (OR=4.8, CI=1.4-16.5).

**Conclusion:** The job insecurity was strongly associated with job strain. The study provides an insight on the prevalence and important factors affecting the job strain among the primary health care managers in Turkey.

**Keywords:** Job stress, psychosocial risks, management

## INTRODUCTION

Stress at work is one of the risk factors of occupational health and safety in industrialized and developing countries. There are several models to assess job stress including demand-control-support model that is described as the combined effects of high workload demands with low decision latitude (1). In this regard, stress has been considered as a risk arising from working environment, and as a relationship between working demands and personal abilities to cope with these demands (2).

There has been a transition in the employment structure in developing countries for the last three decades. During this period, increasing part of the workforce were employed in services sectors. Currently, more than 50% of Turkish employees are working in the services sector. Among the service jobs, working in the health

care services has been documented as one of the most stressful. There have been many stress factors described in the workplace of health care workers including administrative workload, contact with suffering patients, verbal and physical abuse by patients and peers, bullying by colleagues, the need to hide negative emotional responses, role conflicts between professions, and organizational changes (3).

Public health care managers are the actors among decision makers, employees and consumers. Most of the managers face several stressful events during their daily work. Some of these include; time pressure, frequent interruptions, poor support from higher management and peers, work at home, and constant demand for attention. Managers have been reported to experience higher demands, higher level of

conflicts, and lower degree of social support from peers than the employees (4). Therefore, managers might experience unacceptable levels of work-related stress, and be unable to cope with their work. However, there are only a few studies concerning the managers in health care services. In the present study, it was aimed to define the prevalence of stress and factors affecting job strain among the primary health care service managers in Turkey.

## METHODS

A cross-sectional study was conducted to determine prevalence and factors affecting job strain in primary health care managers. The dependent variable of the study is job strain. A standardized self-administered questionnaire was used for strain assessment with a second questionnaire for socio-demographic factors and working life features. Turkish version of the Swedish Demand Control Questionnaire (DCQ) was used. DCQ has 17 items on four domains; there were five items for demand, four items for skill discretion, two items for authority over decision, and six items for social support. Response choices for an item were “often, sometimes, seldom, and never/almost never” in demand and decision latitude domains. Response categories for social support items’ corresponded to four graded Likert scale, ranging from ‘strongly agree to strongly disagree’. Responses to each item were scored between 1 and 4. Total score for a domain equals the total sum of the item scores in that scale. Summation of scores in skill discretion and authority over decision corresponds to control or decision latitude. The items or domains were not weighted. The higher scores indicate higher demands, higher decision latitude, and social support. Job strain defined as the ratio between demands and decision latitude (5). Excess strain was defined as a value higher than the median value of this ratio. Chronbach’s alpha values were 0.73 for the psychological demands, and 0.71 for the decision latitude. Full validation information of the Turkish version of DCQ has been published elsewhere (6).

The primary health care managers who worked in the Health District were included. All the managers working in the Health District were targeted to include in the study. The response rate was 54 (98%) out of 55 managers in the Health District. There are 39 Health Centers, 7 Mother and Child Health Care Centers, and 3 Tuberculosis Control Dispensary in the District. A standardized self-administered questionnaire was delivered to each participant. Chi-square statistics with Yates correction was used to evaluate the group differences. Logistic regression analyses were used to explain possible associations between stress and affecting factors. Alpha error of 0.05 is used as the cutoff for significance level. Ethical approval was obtained from the Dokuz Eylul University non-interventional Ethical Committee.

## RESULTS

There were 55 managers in the District and of those, 54 (98%) responded the questionnaire. The mean age of the primary health care managers was 40±8, and mean duration of managing

experience was 5±4 years (median: 4 years). Fifty-two percent of the managers were female. Twenty-eight percent of the managers had postgraduate education. Mean daily working time was 8±1 hours (median: 8 hours). Thirty percent of the study group declared over-time work. Four (7%) managers did not have any duties other than administration. The duties of the managers other than administrative tasks at health centers were data analysis of the center (70%), patient care (65%), health education for personnel and community (61%), environmental health (33%), mother and child health (32%), immunization (28%), and communicable diseases (24%). The manager was responsible for the supervision of about one to fifty-six of primary health care workers, with a median of 15 workers. The descriptive characteristics of primary health care managers are summarized in Table 1.

**Table 1.** Descriptive characteristics of the primary health care managers

Variables	n	%
<b>Age</b>		
≤35	12	22.2
36-45	33	61.1
≥46	9	16.7
Female	28	51.9
Married	47	87.0
Postgraduate education (yes)	15	27.8
Having private office	11	20.4
Overtime working (daily)	16	30.2
Weekend working	20	37.0
<b>Duties</b>		
Health data analysis	38	70.4
Examination of patients	35	64.8
Continuous or community education	33	61.1
Environmental health	18	33.3
Mother & child health	17	31.5
Immunization	15	27.8
Communicable diseases	13	24.1

Managers have been working 8.4 hours per day, and supervised 16.4 people in their institutions. The job demand score was 13.4±2.6, the skill discretion score was 11.2±2.4, and authority over decision score was 6.9±1.3 as shown in Table 2. Forty-five percent of the study group had the highest possible score for authority over decision. The percentages of maximum scores for job demand and skill utilization were 6.0% and 9.0% respectively.

**Table 2.** Means and medians of stress assessment indicators

Variables	Mean score	SD
Duration of work (year)	8.2	4.9
Duration of managing (year)	5.2	4.1
Employee under supervision	16.4	9.8
Daily working time (hour)	8.4	1.0
Job demand	13.4	2.6
Skill discretion	11.2	2.4
Authority decision	6.9	1.3
Strain	0.8	0.2

The association of independent variables and job strain is shown in Table 3. All the variables failed to be associated with job strain

( $p>0.05$ ), except the job insecurity which is found as an important factor ( $p=0.03$ ); twenty-one (39%) managers rated their jobs as insecure or partly secure. Job strain was found significantly higher in this group (71%) compared to the group rating as more secure (36%). Age and gender adjusted job insecurity was found as a risk factor for job strain (OR=4.8, CI=1.4–16.5).

**Table 3.** Factors affecting job strain among primary health care managers

	High strain (%)	P
<b>Gender</b>		
Men (n=26)	54	0.79
Women (n=28)	46	
<b>Age</b>		
≤40 (n=31)	52	0.73
≥41 (n=23)	48	
<b>No of supervision</b>		
≤10 (n=37)	51	0.83
≥11 (n=16)	50	
<b>Working years</b>		
<15 (n=24)	46	0.78
≥15 (n=30)	53	
<b>Job insecurity</b>		
Secure (n=33)	36	0.03
Insecure/partly secure (n=21)	71	
<b>Management years</b>		
≤10 (n=49)	51	0.55
≥11 (n=5)	50	
<b>Number of duties</b>		
≤3 (n=32)	56	0.40
≥4 (n=22)	41	
<b>Another job</b>		
Yes (n=11)	46	0.74
No (n=43)	51	

## DISCUSSION

In the present study, it is shown that job insecurity is associated with job strain. It has been reported that job insecurity reduces psychosocial well-being and job satisfaction. Job insecurity has been described as a situation that a person has fear of loss of his/her job. It has been emphasized that job insecurity is a subjective experience or perception in some extent, therefore the same situation might be perceived differently by different employee groups (7). In this regard, managerial works are expected to be more secure and less stressful jobs compared to others. On the other hand, job insecurity may also imply uncertainty and ambiguity about their position in the future. Uncertainty implies not only discontinuity of the job but also the content or specific aspects of the job. Therefore, the workers and managers might be expected to experience more stress as the uncertainty raise. There have been considerable changes in health care delivery system in Turkey during the last two decades. Downsizing and privatization policies have been implemented into the public health care system. New concepts such as profit, competition, and performance based wage systems have been introduced to all public sectors including health care. Moreover, primary health care was one the most influenced institutions among the health care delivery because it is the most widespread and comprehensive institution in Turkey. These transformations have

had a great impact on working condition of health care workers including health care managers.

Söderfeldt et al. suggested that service sectors including health care differs from the other sectors in terms of demand-control model (8). According to Söderfeldt, service sectors and health care delivery organizations are founded on a basis of welfare ideology. There may also be a conflict between official goals and practice (9). Besides, working with other human beings is more complex than working in industry and agriculture. Regarding these assumptions, health care managers would also be influenced from conflicts among workers and organizational demands. In the present study, however, there were no differences in job strain related to different tasks and working conditions. This suggested that job demand-control model may have been moderated by some other variables. Marshall et al. have suggested that the service workers considering the rewarding aspects of services jobs was an important modifier (10).

Authority over decision seems to play a buffer role in our sample. Almost half of the study group have had the highest possible score for authority over decision. Skill utilization was not as high as authority over decision. It has been reported that workload of the health care workers have been an increasing trend with relatively limited influence over decision making process (11). Regarding the managers, however, authority over decision was reasonably higher than the other workers. Skill utilization should be considered as a meaningful intervention tool for reducing strain level of managers.

The literature shows that job insecurity generates stress reactions, and is associated with poor health. It has been indicated that job insecurity reduces psychological health, and increases psychosomatic complaints and job satisfaction (7–12).

Our findings, which revealed that negative effects of job insecurity on job strain, would provide a useful instrument for reducing job strain of the managers in the health care sector. Moreover, managers may play important role on the other workers' job strain and satisfaction. Implementation of secure job policies in health care system should be vital issue for organizationally healthy environment.

Several studies reported that men have higher control over their jobs than women. However, in our study there was not a significant difference according to gender. It could be interpreted that gender inequalities in health care managers is not as large as in industry or other services.

**Ethics Committee Approval:** Ethical approval was obtained from the Dokuz Eylül University non-interventional Ethical Committee.

**Informed Consent:** Informed consent was obtained by telephone call before the questionnaire was delivered to participants

**Peer-review:** Externally peer-reviewed.

**Author Contributions:** Concept - YD; Design - YD, BK, IP; Supervision - YD, BK; Resource - ; Materials - ; Data Collection and/ or Processing - YD, BK, IP; Analysis and/or Interpretation - YD, BK; Literature Search - YD, BK; Writing - YD, BK, IP; Critical Reviews - YD

**Conflict of Interest:** The authors declare that there are no conflicts of interest.

**Financial Disclosure:** This study has received no financial support.

## REFERENCES

1. Levi L, Bartley M, Marmot M, et al. Stressors at the workplace: theoretical models. *Occup Med* 2000;15:69-106.
2. Vanagas G, Bihari-Axelsson S. Interaction among general practitioners age and patient load in the prediction of job strain, decision latitude and perception of job demands. A cross-sectional study. *BMC Public Health* 2004;4:59. [\[CrossRef\]](#)
3. Ruotsalainen J, Serra C, Marine A, Verbeek J. Systematic review of interventions for reducing occupational stress in health care workers. *Scand J Work Environ Health* 2008;34:169-178.
4. Skakon J, Kristensen TS, Christensen KB, et al. Do managers experience more stress than employees? Results from the Intervention Project on Absence and Well-being (IPAW) study among Danish managers and their employees. *Work* 2011;38:103-109. [\[CrossRef\]](#)
5. Theorell T, Perski A, Akerstedt T, et al. Changes in job strain in relation to changes in physiological state. A longitudinal study. *Scand J Work Environ Health* 1988;14:189-196.
6. Demiral Y, Ünal B, Kılıç B, et al. İş Stresi Ölçeğinin İzmir Konak Belediyesi'nde çalışan erkek işçilerde geçerlik ve güvenilirliğinin incelenmesi. *Toplum Hekimliği Bülteni* 2007;26:111-118.
7. Witte HD. Job insecurity and psychological well-being: review of the literature and exploration of some unresolved issues. *European Journal of Work and Organizational Psychology* 1999;8:155-177. [\[CrossRef\]](#)
8. Söderfeldt B, Söderfeldt M, Muntaner C, et al. Psychosocial work environment in human service organizations: a conceptual analysis and development of the demand-control model. *Soc Sci Med* 1996;42:1217-1226.
9. Ahlberg-Hultén G. Psychological demands and decision latitude within health care work: Relation to health and significance. Stockholm: Stockholm University; 1999. 60 p.
10. Marshall NL, Barnett RC, Sayer A. The changing workforce, job stress, and psychological distress. *J Occup Health Psychol* 1997;2:99-107.
11. Arnetz BB. Psychosocial aspects of health care work. In: Hasselhorn H-M, Toomingas A, Lagerström M, editors. *Occupational Health for Health Care Workers: A Practical Guide*. Amsterdam: Elsevier Science Health Science Division; 1999. p.158-167.
12. D'Souza RM, Strazdins L, Lim LL, et al. Work and health in a contemporary society: demands, control, and insecurity. *J Epidemiol Community Health* 2003;57:849-854.