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Job satisfaction level and its main determinants among Iranian emergency medical service personnel: A population-based survey

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Original Research

Job satisfaction level and its main determinants among Iranian emergency medical service personnel: A population-based survey

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Abstract

Introduction

Few research studies exist regarding the job satisfaction of Iranian emergency medical services personnel. This study aimed to explore job satisfaction levels of these personnel in the two western provinces of Iran.

Methods

Participants in this study were emergency medical personnel working (n=260) at medical emergency centres in the two western provinces of Iran (Kermanshah and Hamadan) in 2011. Job satisfaction was measured by a self-administered questionnaire consisting of questions about demographic characteristics and job components, as well as verbal or physical violence with other staff and the greater community. There were 10 experts who confirmed the questionnaire content and face validity. A Cronbach's alpha of 0.84 and a Pearson r for test-retest (r=0.88) showed a reasonable reliability. The gathered data was analysed using SPSS 16 software.

Results

Overall, job satisfaction was found to be at a moderate level (99.3% in Kermanshah and 98.2% in Hamadan). The majority of participants perceived some job components such as the quality and quantity of available equipment and supplies, coordination of emergency department personnel for the immediate admission of patients, participation in management decisions on the job and fairness of the annual performance appraisal system at a low level of satisfaction. The highest satisfaction score was in the autonomy to provide care to patients. There was verbal and physical violence between personnel and their supervisors, patients and patients' caregivers, which was perceived as a low to moderate level of satisfaction. Most participants experienced very low verbal and physical violence with their colleagues.

Conclusion

The majority of the Iranian emergency medical personnel in this study perceived their overall job satisfaction at a moderate level, the autonomy of patient care at the highest level and the fairness of the annual performance appraisal system at the lowest level of satisfaction. All experienced verbal and physical violence with other staff and the community.

Keywords

job satisfaction; emergency medical services; violence; Iran

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Introduction

Optimal job satisfaction among emergency medical services (EMS) personnel is a major concern in any healthcare setting because of its contribution to the quality of emergency services and healthcare (1). In government EMS centres and hospitals, job satisfaction among these personnel is a particularly important issue for the healthcare setting (2).

Previous surveys have reported that job satisfaction among EMS personnel, especially in developing countries, was considerably low, particularly regarding organisational and professional support (3-5). However, there are a few research studies existing in developing countries, such as Iran, regarding job satisfaction among EMS personnel regarding the different job satisfaction elements important to health professionals. These demographic and job characteristics include age, education level, shift work, job experiences, average monthly income (6-7), marital status (8), type of employment (9), history of smoking (10), regular physical activity (11), quantity and quality of available equipment and supplies, scheduling of the shift work, autonomy to provide care to patients, participation in management decisions on the job, supervision of the supervisor, coordination between staff (emergency department personnel for immediate admission of patients), opportunities for professional development and career advancement (6-7), and also fairness of the annual performance appraisal system (12).

EMS personnel are not satisfied with the level of appreciation and recognition they receive from their employers. About one-third of participants in this study were not satisfied with the benefits they receive from their employer. Nearly all believed that EMS personnel should be paid more for the job they perform (13). Job satisfaction is considered very important in developed and developing countries because it is a significant predictor of the quality and efficiency of a health system (14).

Another factor that has a significant effect on staff job satisfaction is the frequency of workplace violence in the emergency setting (15). International studies have shown that 60% of paramedics have experienced physical violence in the workplace and 21–78% have experienced verbal abuse, with 87.5% of Australian paramedics exposed to workplace violence from patients, patients' friends or family members, other professionals or work colleagues (16). In these surveys, the main factors for job satisfaction were job safety as well as working environment and facilities (17). If personnel are not satisfied with their job, the patient satisfaction level will be lower due to problems with the quality of care (18-19).

Low job satisfaction has been linked to turnover in nursing (20), and may have similar effects on retention of EMS personnel. Job satisfaction among EMS personnel is critical for their retention. When high levels of job satisfaction are achieved there is an increase in morale and commitment that makes it

more likely they will stay in the profession (21). Little data was found to quantify current shortages of EMS personnel, yet there is a perceived shortage of EMS personnel in some sectors and geographic areas (22).

This study aimed to explore an overall view of EMS personnel job satisfaction in the two western provinces of Iran. It is expected that the findings of this study will provide a better understanding in identifying the specific factors that contribute to job satisfaction among EMS personnel.

Methods

Study design

A cross-sectional study using a paper-based survey to obtain data from EMS centres in the two western provinces of Iran to explore what is important in their jobs via a self-reported questionnaire.

Setting

Iran is located in the Middle East and is among the top seven countries vulnerable to natural disasters in the world (23). Particularly in the west and southwest regions of the country there is a high risk of earthquake (24). Furthermore, according to a World Health Organization report, the rate of traffic accidents resulting in death in this region in 2007–08 was estimated at 22.918 (people who died within 30 days of an accident) and injuries were estimated at 658.611 persons (25). Hamadan and Kermanshah provinces have always experienced a high rate of road accidents due to the presence of international transit roads, which are located in a mountainous area (26). Because of the higher rate of traffic accidents in the region, the rapid response of emergency medical personnel with the highest mental and physical stamina is necessary.

Study population

Participants in this study were personnel (paramedics and emergency medical technicians) working at EMS centres in the two western provinces of Iran in 2011. By census, all EMS personnel with inclusion criteria as having at least 6 months experience in their current job and a diploma degree took part: Kermanshah (n=150) and Hamadan (n=110).

Instrument

A questionnaire that included questions on the different aspects of demographic characteristics and job components such as age, educational level, work shift, job experience, average monthly income, marital status, type of employment, and history of smoking and regular physical activity.

EMS personnel job satisfaction was measured by a 10-item self-administered questionnaire with 10 elements of job satisfaction including overall job satisfaction, current job status, quantity and quality of available equipment and supplies, scheduling of shift work, autonomy to provide care to patients, participation in

management decisions on the job, supervision of the supervisor, coordination between staff (the emergency department personnel for immediate admission of patients), opportunities for professional development and career advancement, and fairness of the annual performance appraisal system.

Participants rated each item using a 4-point scale (0 = very low satisfaction to 4 = very high satisfaction). The range of possible satisfaction was rated as 0-0.8 = very low, 0.8-1.6 = low, 1.6-2.4 = moderate, 2.4-3.2 = high and 3.2-4 = very high satisfaction.

The status of verbal and physical violence during work duties within the previous 6 months was evaluated by another section of the questionnaire. This included verbal and physical violence by colleagues, supervisors, patients and patients' family members/caregivers at the workplace or assignments. Participants also rated the quantity of each violence item using a 4-point scale (0 = very low to 4 = very high).

To validate the study instruments, a panel of 10 experts in the fields of psychology, healthcare management and nursing administration was engaged from the medical sciences universities of the two provinces.

Procedure

The study data were collected at the participants' workplace by using a self-administered questionnaire. Questionnaires were voluntarily completed by participants at their workplace and collected after 3-7 days. The data collection process lasted 1 month.

Data analysis

The internal consistency of the instrument was tested yielding a Cronbach's alpha of 0.84 for total job satisfaction package. The test-retest result of 10 completed questionnaires by similar personnel in 2-week intervals also showed a desirable reliability ($r=0.88$).

Results were reported as frequency and percentages for the categorical variables by applying SPSS 16 software.

Ethics

Research was approved by the Research and Technology Council of the Hamadan University of Medical Sciences.

Results

Primary results (Table 1) showed that more than half of the participants were aged less than 40 years (59.4% in

Kermanshah and 57.2% in Hamadan); and most were married. A Bachelor degree made up the largest group in both provinces (40.0% in Kermanshah and 43.6% in Hamadan). Only half of the participants undertook daily physical activity. Less than half had more than 10 years work experience (38.0% in Kermanshah and 39.2% in Hamadan), and only 11.3% in the first and 11.9% in the second province had monthly incomes higher than 6,000,000 Iranian Rials (approximately USD150).

The overall job satisfaction was found to be at a moderate level (99.3% in Kermanshah and 98.2% in Hamadan). For some components of job satisfaction, including the quality of available equipment and supplies, scheduling of the shift work, coordination of emergency department personnel for the immediate admission of patients, participation in management decisions on the job and fairness of the annual performance appraisal system, participants perceived these components mostly at a low level of satisfaction (Table 2).

Remarkably, the majority of participants were moderately satisfied with current job status, quantity of available equipment and supplies, supervision of the supervisor, and opportunities for professional development and career advancement. In this regard, the highest satisfaction score was specified for the autonomy to provide care to patients.

Regarding the extent of verbal and physical violence within the past 6 months (Table 3), these components between personnel and their supervisors, patients, or patients' caregivers were frequently perceived at low to moderate levels. The majority of participants had very low satisfaction levels for verbal and physical violence with their colleagues. In this context, the highest quantity of verbal violence was with the patients' caregivers during assignments, followed by supervisors and patients during assignments.

Discussion

EMS are a vital part of rural healthcare services (27). EMS systems rely on a staff of trained personnel to ensure that the public receives timely and appropriate treatment in emergency and non-emergency situations. This descriptive study uses cross-sectional data from EMS centres in the two west provinces of Iran to explore what is important in their jobs, and whether they are satisfied with their profession. Results show that most EMS personnel, regardless of location, had a moderate level of overall job satisfaction.

The respondents cited their autonomy in providing care to patients and therefore the ability to help others as important aspects of their job satisfaction (19-20). It is believed that EMS personnel satisfaction of their options directly originates from programs and policies that address optimal commensurability between their abilities and duties (28).

EMS personnel were less likely to cite as important those satisfaction aspects related to fairness of the annual performance appraisal system which is associated with job satisfaction (25). Accordingly, managers should try to evaluate employee performance accurately and thus present a correct view of the quality of their performance to higher levels of authority.

Participants perceived the participation in management decisions about their job mostly at a low level of satisfaction, identifying the barriers to increase their willingness to work and designing appropriate programs to maximise their participation in their own management can be optimal strategies to address the EMS workforce shortage (29). Participants were moderately satisfied with the quantity but had low satisfaction with the quality of available equipment and supplies, scheduling of shift work and coordination between staff, with these components greatly affecting job satisfaction (6).

Another aim of this study focused on the extent of the verbal and physical violence between EMS personnel and patients, their friends, family members, other professionals or work colleagues. The most frequently detected verbal violence was with patients' caregivers and supervisors, and patients during assignments. This component was the main aspect of job dissatisfaction among EMS personnel (30). It seems that the main cause of the observed prevalence of violence and high dissatisfaction were due to the existence of a mismatch between the volume and quality of work (31). It is clear that violence can potentially affect morale, job satisfaction and quality of care (32). In fact, EMS personnel who reported the highest degree of violence also experienced the highest degree of burnout because of stress. It seems that interpersonal conflict, especially between personnel and their supervisors, can occur when there is disagreement about

healthcare management (33-34). Also, violence between personnel and patients or their caregivers may occur if there is disagreement over the patient's assessment or management recommendations (35). In this context, managers are in a pivotal position to change personnel behaviour by educating them to resolve their own violence (36).

Limitation

The main limitation of this study is the use of self-administered and self-completion questionnaires, with participants possibly expressing their opinions incorrectly.

Conclusion

In summary, the overall job satisfaction of Iranian emergency medical personnel is at a moderate to high level regarding the autonomy of patient care, and at a low level regarding the fairness of the annual performance appraisal system. All participants experienced verbal and physical violence with the patients, patients' caregivers, their supervisors and colleagues.

Competing interests

The authors declare they have no competing interests.

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Characteristics	Kermanshah (n=150)	Hamadan (n=110)
Age group (%)		
20–29 years	40 (26.7)	31 (28.1)
30–39 years	49 (32.7)	32 (29.1)
40–49 years	40 (26.7)	26 (23.6)
>49 years	21 (14.0)	21 (19.2)
Marital status (%)	110 (73.3)	81 (73.6)
Married	40 (26.7)	29 (26.4)
Single		
Educational degree (%)		
Diploma degree	30 (20.0)	20 (18.2)
Associate degree	60 (40.0)	42 (38.2)
Bachelor degree	60 (40.0)	48 (43.6)
Having history of smoking (%)	36 (24.0)	27 (24.5)
Having regular physical activity (%)	72 (48.0)	56 (50.9)
Educational field (%)		
Medic	30 (20.0)	30 (27)
Medical emergency	36 (24.0)	24 (23)
Anaesthesiology	24 (16.0)	18 (15)
Nursing	60 (40.0)	38 (35)
Type of employment (%)	38 (25.4)	30 (27.3)
Corporate employment	71 (47.3)	45 (40.9)
Indentured employment	41 (27.3)	35 (31.8)
Official employment		
Job history (%)	3 (2.0)	4 (3.6)
<1 year	37 (24.7)	27 (24.5)
1–5 years	53 (35.3)	36 (32.7)
6–10 years	40 (26.7)	26 (23.6)
11–15 years	17 (11.3)	17 (15.6)
16–20 years		
Shift work × 24 hour/month (%)	0 (0.0)	0 (0.0)
7–9	12 (8.0)	11 (9.0)
9–11	18 (12.0)	16 (14.5)
11–13	120 (80)	83 (75.5)
13–15		
Monthly income (%)		
<5,000,000 rials	18 (12.0)	16 (14.5)
5,000,000 – 6,000,000 rials	115 (76.7)	81 (73.6)
6,000,000 – 9,000,000 rials	17 (11.3)	13 (11.9)

Table 1. Baseline characteristics of participants

Aspect	Very high	High	Moderate	Low
Overall job satisfaction				
Kermanshah	0 (0.0)	1 (0.7)	149 (99.3)	0 (0.0)
Hamadan	0 (0.0)	2 (1.8)	108 (98.2)	0 (0.0)
Satisfaction of the current job status				
Kermanshah	0 (0.0)	8 (5.3)	142 (94.7)	0 (0.0)
Hamadan	0 (0.0)	10 (9.1)	100 (90.9)	0 (0.0)
Satisfaction of the quantity of available equipment and supplies				
Kermanshah	0 (0.0)	21 (14.0)	129 (86.0)	0 (0.0)
Hamadan	0 (0.0)	15 (13.6)	95 (86.4)	0 (0.0)
Satisfaction of the quality of available equipment and supplies				
Kermanshah	0 (0.0)	50 (33.3)	40 (26.7)	60 (40.0)
Hamadan	0 (0.0)	35 (31.8)	37 (33.6)	38 (34.5)
Satisfaction of the scheduling of the shift work				
Kermanshah	0 (0.0)	50 (33.3)	40 (26.7)	60 (40.0)
Hamadan	0 (0.0)	35 (31.8)	37 (33.6)	38 (34.5)
Satisfaction of the coordination between staff				
Kermanshah	0 (0.0)	29 (19.3)	36 (24.0)	85 (56.7)
Hamadan	0 (0.0)	25 (22.7)	26 (23.6)	59 (53.6)
Satisfaction of the opportunities for professional development and career advancement				
Kermanshah	0 (0.0)	20 (13.3)	121 (80.7)	9 (6.0)
Hamadan	0 (0.0)	10 (9.1)	89 (80.9)	11 (10.0)
Satisfaction of the participation in management decisions on your job				
Kermanshah	0 (0.0)	16 (10.7)	54 (36.0)	80 (53.4)
Hamadan	0 (0.0)	17 (15.5)	38 (34.5)	55 (50.0)
Satisfaction of the autonomy to provide care to patients				
Kermanshah	20 (13.3)	31 (20.7)	56 (37.3)	43 (28.7)
Hamadan	13 (11.8)	25 (22.7)	44 (40.0)	28 (25.5)
Satisfaction of the supervision of the supervisor	0 (0.0)			
Kermanshah	0 (0.0)	0 (0.0)	86 (57.3)	64 (42.7)
Hamadan	0 (0.0)	0 (0.0)	64 (58.2)	46 (41.8)
Satisfaction of the fairness of the annual performance appraisal system				
Kermanshah	0 (0.0)	0 (0.0)	49 (32.7)	101 (67.3)
Hamadan	0 (0.0)	0 (0.0)	32 (29.1)	78 (70.9)

Table 2. Different components of job satisfaction in study populations

Aspect	High/very high	Moderate	Low	Very low
Verbal violence with colleagues at workplace or assignments				
Kermanshah	0 (0.0)	0 (0.0)	31 (20.7)	119 (79.3)
Hamadan	0 (0.0)	0 (0.0)	21 (19.1)	89 (80.9)
Physical violence with colleagues at workplace or assignments				
Kermanshah	0 (0.0)	4 (2.7)	16 (10.7)	130 (86.7)
Hamadan	0 (0.0)	4 (3.6)	11 (10.0)	95 (86.4)
Verbal violence with the supervisors				
Kermanshah	17 (11.3)	63 (42.0)	21 (14.0)	49 (32.7)
Hamadan	14 (12.7)	47 (42.7)	15 (13.6)	34 (30.9)
Physical violence with the supervisors				
Kermanshah	0 (0.0)	0 (0.0)	4 (2.7)	146 (97.3)
Hamadan	0 (0.0)	0 (0.0)	4 (3.6)	106 (96.4)
Verbal violence with the patients during assignments				
Kermanshah	17 (11.3)	40 (26.7)	57 (38.0)	36 (24.0)
Hamadan	14 (12.7)	26 (23.6)	45 (40.9)	25 (22.7)
Physical violence with the patients during assignments				
Kermanshah	0 (0.0)	27 (18.0)	73 (48.7)	50 (33.3)
Hamadan	0 (0.0)	17 (15.5)	57 (51.8)	36 (32.7)
Verbal violence with the patient's caregivers during assignments				
Kermanshah	27 (18.0)	40 (26.7)	20 (13.3)	63 (42.0)
Hamadan	17 (15.5)	29 (26.4)	15 (13.6)	49 (44.5)
Physical violence with the patient's caregivers during assignments				
Kermanshah	0 (0.0)	27 (18.0)	57 (38.0)	66 (44.0)
Hamadan	0 (0.0)	46 (41.8)	46 (41.8)	47 (42.7)

Table 3. Prevalence of verbal or physical violence within the past 6 months

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