




Research Paper: Relationship Between Health and Safety Management Status and Job Satisfaction Among Employees of Rehabilitation Centers With Crisis Management Approach in Kohgiluyeh and Boyer-Ahmad Province



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ABSTRACT

Background: Success and profitability of an organization as a social system depend on the effective use of human resources. Job satisfaction is one of the most important issues related to human resources and has long been the focus of attention in organizational studies. Although existing studies have identified several factors affecting job satisfaction, few studies have evaluated the status of Occupational Health and Safety (OHS) management and job satisfaction in Iran. Employees are exposed to various work-related hazards and crises. Hence, attention to various environmental threats and control of occupational safety and health risks should be considered as one of the major and indispensable goals of the organization. In this regard, this study aimed to investigate the relationship between OHS management and job satisfaction among employees of nongovernmental rehabilitation centers under the supervision of the Welfare Organization in Kohgiluyeh and Boyer-Ahmad Province using crisis management approach.

Materials and Methods: This descriptive correlational study was carried out on 220 employees of non-governmental rehabilitation centers in Kohgiluyeh and Boyer-Ahmad, who were selected using the census sampling method. Data collection tools were the Persian version of the Job Descriptive Index instrument and a researcher-made questionnaire in Persian for the assessment of OHS management, which has acceptable validity based on by the opinion of several academic experts. It also has good reliability based on the value of the Cronbach alpha coefficient. The obtained data were analyzed in SPSS v. 20 at a significant level of $P < 0.05$ using the independent t-test, linear regression analysis, and Pearson correlation test.

Results: showed a significant relationship between OHS management in non-governmental rehabilitation centers and their employees' job satisfaction ($P < 0.05$). In general, the OHS management and job satisfaction in these centers were at a moderate level.

Conclusion: The job satisfaction level of the employees and the OHS management of the non-governmental rehabilitation centers in Kohgiluyeh and Boyer-Ahmad need to be improved. Also, since the OHS management of the workplace is one of the essential indicators of crisis management and safety during emergencies, it is necessary to implement effective management measures to optimize the assessment of OHS performance in the framework of crisis management and risk reduction in organizations.

Keywords:

Health and safety management,
Job satisfaction, Employees,
Crisis management

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1. Introduction

In recent years, organizations and societies have paid particular attention to the health and safety of the workplace, and business owners and government officials are also eager to invest in maintaining and enhancing these factors as essential causes for organizations' sustainable development. Organizations are increasingly interested in achieving and demonstrating proper job satisfaction through controlling Occupational Health, and Safety (OHS) risks consistent with their macro goals and OHS policies [1].

Organizations follow this approach based on the increasingly strict rules, expanding economic policies, and other measures to promote good OHS activities, and increasing stakeholders' attention to OHS issues. Today, addressing employees' health and welfare issues and also applying strategies to adapt their working conditions to the physical and psychological circumstances is considered not only a privilege but also a task [2]. The higher rates of employees' health care can lead to the increased growth and development of the organizations and society, as well [3]. In this regard, the role of management as a key factor in promoting the health and well-being of the employees and consequently achieving organizational growth have become more evident [4].

According to the studies, paying attention to the principles of OHS management principles and following them are effective in reducing the economic losses of service organizations. This reduction can be due to the decrease in accidents leading to decreased mortality and financial losses. The World Health Organization (WHO) and the International Labor Organization have defined OHS services as the science and art of providing the highest level of health to workers and adapting work to the capabilities of workers based on their physical and psychological skills.

The organizational assets can be protected by creating a healthy work environment, choosing the right person for each job, preventing accidents and occupational/non-occupational diseases, personal health education, early detection and treatment of the conditions, and considering the employees' concerns and dependents. Accordingly, every worker can be a productive person for society with a maximum level of health and well-being [5, 6]. Based on this definition, the WHO's plan of action for workers' health is a new schedule based on its global strategy for occupational health for all. In this regard, occupational safety, level of income, education, participation in decision-making, behaviors, traditions, and customs are the issues addressed in

OHS as the science of monitoring the health of the workforce [7]. Because improving the skilled workers' health leads to the development of the organizations [8], OHS issues are identified as programs to protect the employees' lives, health, and well-being. They also aim at preserving national and public wealth and making the workplace safer, more tolerable, and human-friendlier [9, 10].

Paying more attention to human resources is undoubtedly one of the most critical organizational principles and criteria because, without such an approach, the organizations are unacceptable and discredited and also their existential philosophy is in danger [11]. An ideal organization regards its employees as human beings, not as the production machine [12]. The optimal use of the workforce is when they are healthy and away from the risk of diseases or accidents in the workplace [13, 14]. Organizations usually implement plans to provide health and safety services to employees, which are considered as OHS management [15].

Occupational diseases and work-related accidents impose a heavy burden on the economy of the societies through causing disabilities, reduced productivity, high medical costs, and lost working hours [16]. Today, many people spend more than a third of their adult life in hazardous environments [17, 18]. According to the WHO, each year 120 million accidents occur worldwide, with 5.3 million casualties and damage costs of \$500 billion. They also cause about 68-157 million occupational diseases endangering the health condition throughout the world. In addition to human waste, the costs of these accidents account for a large percentage of Gross Domestic Product (GDP) in some countries, including Iran [19].

Job satisfaction is one of the most critical components of the employees' productivity in rehabilitation centers. It comprises a set of workers' emotions and beliefs about their current jobs and one of the most important factors in job success as well as increasing performance and personal satisfaction. Job satisfaction means loving the job duties and also the conditions in which the job is done and rewarded [4]. On the one hand, job satisfaction is vital regarding the following two aspects: 1. human aspect, the staff are deserved to be treated fairly and respectfully; 2. behavioral aspect, job satisfaction can guide the employees' behavior in a way that affects their performance and organizational tasks and leads to positive and negative behaviors. It also has some other advantages for the organizations, for example, job satisfaction increases the employee's morale, productivity, life satisfaction, organizational commitment, physical and mental health, as well as their ability to learn new skills quickly. On the other hand, job dissatisfaction reduces staff morale [17].

Job satisfaction is a multidimensional concept, which is associated with several factors, including OHS management. By assigning services to non-governmental organizations and institutions and also their supervision and evaluation, the Welfare Organization of Iran has attempted for many years to increase client confidence and satisfaction. However, studies have shown poor OHS management in these organizations [18]. Numerous studies have shown that OHS management has an impact on job satisfaction [11, 17].

In less prosperous provinces of Iran such as Kohgiluyeh and Boyer-Ahmad, many families are highly dependent on supporting organizations, like the Welfare Organization. Due to the economic poverty and high rates of disability, the staff of this organization is busy to provide services to vulnerable groups. Therefore, to maintain the physical and mental health and safety of these diligent staff and to increase their productivity and effectiveness, which ultimately leads to the improvement of both quality and quantity of services to the targeted population, all conditions, and facilities, including OHS, should be provided for them as much as possible. However, no effective measures have been taken in some rehabilitation centers of this province, whereas the target population is substantial and poverty-stricken.

This study attempted to evaluate the association between OHS management and job satisfaction among employees of non-governmental rehabilitation centers in Kohgiluyeh and Boyer-Ahmad, which are under the supervision of the Welfare Organization. It was also conducted to attract the attention of senior and provincial executives of this organization to this issue.

Since rehabilitation centers are essential for providing and developing physical, mental, and social supportive environments and prioritizing quality of life for people with special needs, OHS management is particularly important in these settings. Adopting occupational health programs in some organizations, where the type of work affects the mental and physical health of their employees (such as rehabilitation centers, nursing homes, etc.) has reduced the incidence and severity of accidents and mental/physical diseases [20-22]. In a therapeutic setting, there is a need for on-site immunization and emergency supplies because many damaging factors exist in different work environments that lead to many human and financial damages. As a result, the observance of OHS conditions makes workplaces safe and waste-free [23].

A comprehensive crisis management plan keeps managers ready to deal with the crises facing their health care envi-

ronments, and through its preventive approach, it reduces the impact of emergencies and saves the people's living environment from various dangers [24]. Assessing the current state of healthcare settings is the first step in preventing a crisis affecting the city and the whole region, and also evaluating the effectiveness of the systems [25]. Although numerous studies have been carried out in Iran to assess satisfaction with different jobs, no study has been conducted in this area despite the importance of the effects of OHS factors on job satisfaction. In this regard, this study was conducted to assess the OHS status of non-governmental rehabilitation centers and evaluate its association with job satisfaction of the staff working in these centers. The study results propose solutions to mitigate the risk factors associated with poor OHS management resulting in reducing the financial and human costs due to job dissatisfaction among employees in rehabilitation centers.

2. Materials and Methods

This descriptive, correlational study was conducted on all employees working in rehabilitation centers in Kohgiluyeh and Boyer-Ahmad Province in 2017. The samples were selected by census method (N=220). A researcher-made questionnaire was used for assessing the OHS management status. This 46-item questionnaire assesses general safety issues, including electricity, equipment, and building risk factors (traffic flow at the entrances and exits, maintenance, electrical equipment, and power generators, facilities and services, platforms and floors), fire safety and safety during emergencies (physical, biological and chemical factors), ergonomics/psychological factors and the items related to OHS management. To prepare the questionnaire, we reviewed the information and tools used in other relevant studies and developed an initial draft. Its formal and content validity was then assessed based on the opinion of academic experts and using Lawshe Table and the necessary modifications were then made. Each item was rated on a 5-point Likert scale from 1-5 (1=very low, 2=low, 3=moderate, 4= high, and 5= very high) indicating the level of OHS management. The content validity index and content validity ratio of the questionnaire were 0.68 and 0.83, respectively. Besides, a Cronbach alpha coefficient of 0.88 was also obtained.

The Persian version of the Job Descriptive Index (JDI) instrument was used to assess the job satisfaction of the employees. It has 39 items and 5 subscales of job (n=10), supervision (n=8), coworkers (n=10), promotion (n=5), and pay (n=6), which are scored based on the semantic differential scale. The respondents were asked to indicate the most appropriate options by marking a 5-point bipolar scale. Contradictory statements

were placed at the two ends of the scale. The content validity of this tool has been examined by Gholizadeh et al. (2010). They also reported a Cronbach alpha coefficient of 0.917 for its Persian version, which indicates its acceptable reliability. In Khavari and Yousefian study (2007), its Cronbach alpha coefficient was obtained 0.92. The content validity index and content validity ratio for this questionnaire was obtained 0.69 and 0.83, respectively.

After obtaining approval from the Ethics Committee of the University of Social Welfare and Rehabilitation Sciences, the questionnaires were distributed among participants and returned after completion. Descriptive statistics (frequency, percentage, mean, and standard deviation) were used to describe study variables.

3. Results

Of 220 participants, 77 subjects (35%) were male, and 143 subjects (65%) were female. Most of the subjects were married (n=122, 55%) and aged 26-35 years (n=100, 45%) with bachelor degree (n=115, 52%) and also with a work

experience of 6-10 years (n=170, 77%) and working hour of 21-40 h (n=130, 59%). Most of them were working in the health care sector (n=86, 39%).

The mean score of OHS management and job satisfaction was 3.642 and 3.593 (of 5), respectively, which was greater than the median value (Table 1). Their higher mean values are indicative of more favorable OHS management and job satisfaction. The results of regression analysis in Table 2 showed a beta value of 0.672 and t of 17.675 for OHS management, which was greater than the critical value for t at a 5% significance level (1.96). This finding indicated a significant association between OHS management and job satisfaction among the employees at rehabilitation centers (P<0.001).

Results of t-test showed a significant relationship between the mean of OHS management, job satisfaction and their dimensions, including general safety, fire safety, ergonomics/psychological factors, job, supervision, promotion, pay, and coworkers (P<0.001) (Table 3). According to the results in Table 4, the satisfaction with coworkers had the highest correlation with other variables, especially with ergonom-

Table 1. Descriptive statistics of the study variables

| Variables | N | Median | Mode | Mean±SD | Variance | Range | Min | Max |
|----------------------------------|-----|--------|-------|-------------|----------|-------|-------|-----|
| OHS management | 220 | 3.333 | 4 | 3.642±0.848 | 0.719 | 4 | 1 | 5 |
| Job satisfaction | 220 | 3.333 | 3.333 | 3.593±0.776 | 0.603 | 4 | 1 | 5 |
| General safety | 220 | 3.333 | 4 | 3.410±0.860 | 0.739 | 4 | 1 | 5 |
| Fire safety | 220 | 3.667 | 4 | 3.471±0.847 | 0.717 | 4 | 1 | 5 |
| Ergonomics/psychological factors | 220 | 3.667 | 4 | 3.474±0.804 | 0.647 | 4 | 1 | 5 |
| Job | 220 | 3.333 | 4 | 3.440±0.830 | 0.689 | 4 | 1 | 5 |
| Supervision | 220 | 4 | 4 | 3.586±0.827 | 0.683 | 4 | 1 | 5 |
| Promotion | 220 | 4 | 4 | 3.576±0.801 | 0.641 | 3.333 | 1.667 | 5 |
| Pay | 220 | 3.333 | 4 | 3.380±0.784 | 0.615 | 4 | 1 | 5 |
| Coworkers | 220 | 3.500 | 3.500 | 3.457±0.780 | 0.608 | 3.750 | 1.250 | 5 |

OHS: Occupational Health and Safety

Table 2. Regression analysis to evaluate the relationship between Occupational Health and Safety (OHS) management and job satisfaction of the employees

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|----------------|-----------------------------|------------|---------------------------|--------|--------|
| | B | Std. error | β | | |
| OHS management | 0.662 | 0.037 | 0.672 | 17.756 | <0.001 |

Table 3. Independent t-test results

| Variables | Mean | t | Sig. | 95% CI | |
|----------------------------------|-------|--------|--------|--------|-------|
| | | | | Lower | Upper |
| OHS management | 3.642 | 10.877 | <0.001 | 0.336 | 0.517 |
| Job satisfaction | 3.593 | 9.544 | <0.001 | 0.235 | 0.400 |
| General safety | 3.410 | 8.787 | <0.001 | 0.318 | 0.502 |
| Fire safety | 3.471 | 10.246 | <0.001 | 0.380 | 0.561 |
| Ergonomics/psychological factors | 3.474 | 10.858 | <0.001 | 0.388 | 0.559 |
| Job | 3.440 | 9.779 | <0.001 | 0.352 | 0.529 |
| Supervision | 3.586 | 13.079 | <0.001 | 0.498 | 0.674 |
| Promotion | 3.576 | 13.272 | <0.001 | 0.491 | 0.662 |
| Pay | 3.380 | 8.942 | <0.001 | 0.297 | 0.464 |
| Coworkers | 3.457 | 10.796 | <0.001 | 0.373 | 0.540 |

OHS: Occupational Health, and Safety

ics/psychological factors ($r=0.683$). OHS management and its dimensions also had a significant association with job satisfaction dimensions. In this regard, it can be said that the improvement of general safety, fire safety, and ergonomics/psychological factors can increase job satisfaction of the employees ($P<0.001$).

4. Discussion

The results of this study showed a significant association between OHS management and job satisfaction of employees. Therefore, managers' attention to the establishment of health and safety systems and the creation of safety and health training programs seems necessary. This result is consistent with the findings of Azadeh and Zar-rin [6], Shafieian et al. [11], Malliarou et al. [12], Pakjoo et al. [14], Silla et al. [15], and Zaboli et al. [17]. They all indicated a relationship between the establishment of Health, Safety, and Environment (HSE) management programs and job satisfaction. Our result showed that OHS programs could affect staff job satisfaction in rehabilitation centers. Therefore, it is essential to provide better job conditions for the staff through planning and necessary measures to improve the OHS level.

Most of the previous studies have examined the job satisfaction of medical staff, whereas no adequate attention has been paid to the health care staff. The strength of this research was the assessment of job satisfaction of all health care workers in the studied province. Improving and estab-

lishing a safe environment as well as a healthy workplace can result in an appropriate working atmosphere and also the increased motivation leading to more job satisfaction among employees.

Most of the participants were women (65%). In terms of gender distribution, this study was similar to the studies conducted in Malaysia (97.8% women) and Greece (95% women). Rehabilitation and nursing jobs appear to be quite feminine in most countries, due to their nature, and men are less likely to work in these professions. In the present study, the age of participants ranged 25-45 years, whereas most of them aged between 26 and 35 years (45%). This finding indicates that the study population consisted of young adults. Furthermore, most of the subjects had a Bachelor's degree (52%) and only 12% had a Master's degree, which indicates the lack of samples with higher educational levels in the rehabilitation centers. Due to the working conditions in the rehabilitation centers, the employees do not have enough time to obtain higher academic qualifications. Regarding the job types, 39% of the participants were working in the health sector and 30% in the service sector.

These results indicate that these centers need therapeutic staff. Due to the working status of rehabilitation centers, personnel in the service sector were in the second rank. The study interval was between 1 and 15 years, whereas most of the participants had a work experience of 5-10 years (77%). Regarding marital status, 55% of the participants were married and only four subjects were widow/widower. Working

Table 4. Correlation between Occupational Health and Safety (OHS) management, job satisfaction and their dimensions

| Variables | | OHS Management | Job Satisfaction | General Safety | Fire safety | ergonomics/psychological factors | Job | Supervision | Promotion | Pay | Coworkers |
|----------------------------------|------|----------------|------------------|----------------|-------------|----------------------------------|--------|-------------|-----------|--------|-----------|
| OHS management | R | | 0.636 | | | | 0.194 | 0.252 | 0.190 | 0.090 | 0.542 |
| | Sig. | | <0.001 | | | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| | N | | | | | | | | | | |
| Job satisfaction | R | 0.636 | | 0.392 | 0.385 | 0.383 | | | | | |
| | Sig. | <0.001 | | <0.001 | <0.001 | <0.001 | | | | | |
| | N | 2 | | | | | | | | | |
| General safety | R | | 0.392 | | | | 0.331 | 0.364 | 0.256 | 0.249 | 0.635 |
| | Sig. | | <0.001 | | | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| | N | | | | | | | | | | |
| Fire safety | R | | 0.385 | | | | 0.461 | 0.442 | 0.394 | 0.322 | 0.487 |
| | Sig. | | <0.001 | | | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| | N | | | | | | | | | | |
| Ergonomics/psychological factors | R | | 0.383 | | | | 0.362 | 0.316 | 0.386 | 0.297 | 0.683 |
| | Sig. | | <0.001 | | | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| | N | | | | | | | | | | |
| Job | R | 0.194 | | 0.331 | 0.416 | 0.362 | | | | | |
| | Sig. | <0.001 | | <0.001 | <0.001 | <0.001 | | | | | |
| | N | | | | | | | | | | |
| Supervision | R | 0.252 | | 0.364 | 0.424 | 0.316 | | | | | |
| | Sig. | <0.001 | | <0.001 | <0.001 | <0.001 | | | | | |
| | N | | | | | | | | | | |
| Promotion | R | 0.190 | | 0.256 | 0.394 | 0.386 | | | | | |
| | Sig. | <0.001 | | <0.001 | <0.001 | <0.001 | | | | | |
| | N | | | | | | | | | | |
| Pay | R | 0.090 | | 0.249 | 0.322 | 0.297 | | | | | |
| | Sig. | 0.098 | | <0.001 | <0.001 | <0.001 | | | | | |
| | N | | | | | | | | | | |
| Coworkers | R | 0.542 | | 0.635 | 0.487 | 0.683 | | | | | |
| | Sig. | <0.001 | | <0.001 | <0.001 | <0.001 | | | | | |
| | N | | | | | | | | | | |

hours of the participants ranged from 20 to 60 hours, whereas for most of them (59%), it was 20-40 hours. On average, people work for 5-6 hours per day in rehabilitation centers.

Regarding OHS management, the status of the school buildings and their equipment should be checked for their safety, health, structure, resistance, etc. For this purpose, relevant experts and prepared checklists can be used to assess the safety of public places and health care facilities like hospitals and also infrastructure readiness [26, 27]. It is also necessary to evaluate the occupational competencies of managers in crisis management [28]. It can be certainly said that teaching people and improving their knowledge and attitude regarding health in accidents and disasters result in maintaining health and safety in the therapeutic centers for children and people with disabilities [27].

5. Conclusion

The purpose of this study was to assess OHS management and job satisfaction in rehabilitation centers using a crisis management approach. Thus, paying more attention to provide a safe environment and improve the health status of the workplace can lead to an appropriate working atmosphere and, eventually, increased job satisfaction. This issue may have a direct and clear impact on crisis prevention and in case of unexpected disasters, crisis management can be done in a more organized way. However, for the safety of these organizations and their possible and frequent crises, the policies, procedures and written guidelines have not been provided.

In other words, an organization can perform the best safety and crisis management practices for preventing potential damages from accidents and occupational diseases, which are accepted and understood by employees leading to comply with the guidelines. In contrast, "non-compliance" can be occurred, which affects the best performance and results in occupational accidents and diseases. Therefore, to increase the employees' job satisfaction, it is recommended that effective management measures be implemented to optimize the evaluation of safety and health performance in the context of crisis management and risk reduction in rehabilitation centers and other similar organizations. It is also suggested that HSE management systems be established in rehabilitation centers and provide the staff with the necessary training about the OHS system and ergonomic factors.

This study had some limitations. For example, considering the specific period, the results of this study do not have the necessary certainty for all periods and its generalization to other periods should be done with caution. Also, due to the limited statistical population and even access to the infor-

mation of all rehabilitation centers, the results of this study should be carefully generalized to other rehabilitation centers. There was also a lack of responsibility and incentive to complete the questionnaires among some employees.

Ethical Considerations

Compliance with ethical guidelines

This study was according to USWR Ethical Guidelines (IR.USWRREC.1396.14), and participants were assured of the confidentiality of their information.

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Authors' contributions

All authors contributed in preparing this article.

Conflict of interest

The authors declared no conflict of interest.

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