Original Research Article

THE EVALUATION OF THE POSITION OF HEALTH AND SAFETY SYSTEM IN MULTI-LEVEL STRATEGIC MANAGEMENT OF STAFFS IN SHIRAZ UNIVERSITY OF MEDICAL SCIENCE

Abstract

Objective: The present research aimed to evaluate the position of health and safety system in multi-level strategic management of Shiraz University of medical science.

Method: This is a correlational-surveying study. Field information was collected via questionnaire. Statistical population consists of all staffs of Shiraz University of medical science (900 individuals). To determine the sample size, Morgan table was used so 269 individuals were selected by simple random method. To prevent drop out, 320 questionnaires were distributed and collected. As a result, 308 questionnaires were completed. Random sampling was used in the research. The instrument includes researcher-conducted questionnaire for evaluation of position of health and safety in multilevel management. The questionnaire's validity and reliability were confirmed. To analyze data, Kolmogorov-Smirnov, Pearson correlation coefficient, one sample T, independent T as well as variance analysis tests and SPSS version 20 were used.

Results: Results indicated that the safety system has an improper position in multilevel management of staffs in Shiraz University of medical science. in addition, health system has a good position in multilevel management of staffs in Shiraz University of medical science.

Conclusion: It is suggested that subjects related to multilevel management of staffs is considered.

Keywords: health information management, treatment process, family physician

Introduction

All organizations wish to reach correct job performance via control of risks of occupational health and safety which is compatible with macro goals and policy of occupational safety and health. This is done in form of strict rules, development of economic policies and other actions in direction of proper

activities of occupational safety and health as well as the increasing attention of stakeholders to occupational safety and health (Jaccard, 2013).

It is necessary to deal with staffs' health, welfare and comfort as well as to apply strategies for adaptation with psychological and physical conditions. High level of staffs' health is effective on the growth and development of organizations and society. The role of management, as a main factor in promotion of health and welfare of the organization, is very important leading to organizational growth (Fleischer, 2004).

Strategic management has been considered as one of important factors in successful organizations. The process of strategic management consists of three stages: formulation, implementation and evaluation of strategy. The practices done in these stages are conducted in three levels of organizational hierarchy management including the whole company, current strategic unit and task level. Multilevel planning is used to model non-centralized decision. Therefore, there are either several decision makers in several levels or a hierarchical organization and their decisions have reciprocal influence. In such planning, decision makers in different levels have related variables and targets (Hama'di, 2010). ILO organizations are responsible for protection of workers against occupational diseases and events. Occupational diseases and events are due to ignorance of workers' health and safety. The main goal of ILO is to increase the chance of women and men in reaching qualified work under conditions of freedom, justice, safety and respect to human rights. We summarized such conditions under the term " qualified labor". Qualified labor is safe which is a positive and effective factor on economic growth and manufacture of products (Shabani and Nazari, 2006).

According to statistics of international labor organization, 2.1 million people will die annually due to occupational diseases and events throughout the world. 250 million occupational events as well as 160 million occupational diseases are occurred in different regions of the world. About 4 percent of national gross production is due to such diseases and events. Technological advances and competitive pressures cause rapid changes in work condition, manufacture process and company structure. In this way, rules and regulations are not sufficient to resists against risks and an efficient management is required

(Behroozi, 2005). Technological advances and strong competition between industries caused rapid changes in managerial condition, process and system. However, it is necessary but not sufficient to legislate rules for such changes as well as new risks. Organizations should solve problems occurring continuously for health and safety. They should find good solutions by dynamic managerial strategy (Shabani and Nazari, 2006). Safety and health require an active management system because they cannot be supplied either collectively or individually or by compulsory regulations. The evidences for importance of safety management system in the high level of industrial safety and health suggest that an organizational cause has been involved in 46% of occupational events that lead to disability. According to studies, 50% of occupational events are due to lack of an efficient safety management system (Ligade, 2013). A professional health and safety management system as well as environmental management should be created and kept by top managers and supervisors of the organization (Chen, 2013). First, top management should try hard to grow and strengthen environmental management and professional health and safety management system (Chinern, 2013). It is necessary to solve such problem and reach achievements. One of such solutions is to increase healthy factors affecting the health and satisfaction of human source as well as to settle contradictory environmental factors through establishment of professional health and safety management and environmental management systems (Elmholt, 2013). The present research aims to evaluate the position of health and safety system in management.

Method

This is a correlational-surveying research. Statistical population includes all staffs in Shiraz University of medical science (900 individuals). To specify sample size, Morgan table was used, thus 269 individuals were chosen by simply random sampling. To prevent drop out, 320 questionnaires were distributed and collected. As a result, 308 questionnaires were collected. Two researcher-conducted questionnaires of the position of safety system as well as the position of health system were used. Face validity of the questionnaire was evaluated by 5 professors and their opinions were applied. In addition, the reliability of the questionnaire of safety system position was 0.90 as well as

health system position was 0.83 using Cronbach alpha. Results were expressed by descriptive and inferential statistics as well as SPSS.

Results

To evaluate normality of data distribution, Kolmogorov-Smirnov test was used as shown in table 1.

Table 1: results of Kolmogorov-Smirnov test

Variable	Z	Sig
Safety system position	1.127	0.101
Health system position	1.119	0.120

As shown in the table, all components are normal due to significance level of 0.05, thus parametric statistic is allowed. To evaluate research hypotheses, one sample T test was used as shown in table2.

Table 2: results of single sample T test

Variable	Standard	Mean	T	Significance level
Health system position in multilevel management	No. 3	3.67	9.807	0.001
Safety system position in multilevel management	No.3	2.27	- 8.874	0.001

As seen in the table, mean of health system position in multilevel management of staffs in Shiraz University of medical science is 3.67. Concerning T= - 9.807 and sig. level= 0.001, it can be concluded that health system in multilevel management of staffs in Shiraz University of medical science has a proper position. In addition, mean of health system position in multilevel management is 2.27. Concerning T= - 8.874 and Sig. level= 0.001, it can be concluded that safety system in multilevel management does not have a proper position. There is a significant difference among views of individuals with different genders in terms of safety system and health system positions in multilevel management of staffs in Shiraz University of medical science. T test was used to evaluate hypotheses as shown in table 3.

Table 3: results of independent T test

Variables	Groups	Mean	T	Sig. level
Safety system position in multilevel management	Men	2.12	8.019	0.001
	Women	2.78		
Health system position in multilevel management	Men	3.24	7.453	0.001
	Women	3.79		

According to above table, there is a significant difference between views of men and women in terms of health and safety system position in multilevel management. Results also showed that women evaluated high level of health and safety system in multilevel management due to their high means.

There is a significant difference among individual's views with different educations on safety system position in multilevel management. Results were shown in table 4. It is noteworthy that variances were homogeneous in all groups.

Table 4: results of variance analysis test

	Sum of squares	Freedom degree	Root mean squares	F	Sig. level
Inter-group	4.415	2	2.208	4.203	0.015
Intra-group	293.079	306	0.525		
Total	297.494	308			

As shown in the table, there is a significant difference among individuals' views with different educations on safety system position in multilevel management (Sig. level= 0.015, F= 4.203). Schaffe test was used to determine differences as shown in table 5.

Table 5: results of Schaffe test

Groups	Diploma and lower degrees	Associate degree and B. A	M.A and higher degrees
Diploma and lower degrees		0.290	0.016
Associate degree and B.A			0.365
M.A and higher degrees			

According to results, there is a significant difference between views of individuals with diploma and lower degrees and those with M.A and higher degrees. Mean opinion of each group on safety system position in multilevel management has been shown in table 6.

Table 6: descriptive statistic of safety system position in multilevel management from views of groups with different educations

Groups	Mean	Standard deviation
M.A and higher degrees	3.01	0.743
Associate degree and B.A	2.55	0.902
Diploma and lower degrees	2.14	0.535

There is a significant difference among views of people with different educations on health system position in multilevel management of staffs in Shiraz University of medical science. Variance analysis test was used to evaluate this hypothesis as shown in table 7. It is noteworthy that variances were homogenous in all groups.

Table 7: results of variance analysis test

	Sum of squares	Freedom degree	Root mean squares	F	Sig. level
Inter-group	8.126	2	4.063	6.034	0.003
Intra-group	375.716	306	0.673		
Total	383.842	308			

According to results of the fourth hypothesis, there is a significant difference among views of individuals with different educations about health system position in multilevel management (Sig. level= 0.003, F= 6.034). To specify differences, Schaffe test was used as shown in table 8.

Table 8: results of Schaffe test

Groups	Diploma and lower	Associate degree and B. A	M.A and higher
Diploma and lower		0.358	0.007*
Associate degree and B.A			0.060
M.A and higher degrees			

As shown in results of Schaffe test, there was a significant difference between views of individuals with diploma and lower degrees and those with M.A and higher degrees. Mean views of each group on health system position in multilevel management have been shown in table 9.

Table 9: descriptive statistic of health system position in multilevel management from different educational groups

Groups	Mean	Standard deviation
M.A and higher degrees	3.88	0.780
Associate degree and B. A	3.40	0.258
Diploma and lower degrees	2.98	0.123

Discussion and conclusion

The present research aimed to evaluate the position of health and safety system in multilevel strategic management in shiraz University of medical science. This is an applied research as well as it is a correlational-surveying research. Field information were collected by the questionnaire. Statistical population includes all staffs of shiraz University of medical science (900). To specify sample size, Morgan table was used to choose 269 samples via simple random method. To prevent drop out, 320 questionnaires were distributed and collected. As a result, 308 questionnaires were collected. Random sampling was used in present research. The instrument used in the research was the researcher-conducted questionnaire of health and safety system position in multilevel management. The questionnaire's validity and reliability were evaluated and confirmed. Kolmogorov- Smirnov test, Pearson correlation coefficient, one sample T test, independent T test, variance analysis test as well as SPSS 20 were used to analyze data. Results indicated that

mean safety system position in multilevel management of staffs of Shiraz University of medical science is 2.27. Regarding T= - 8.874 and Sig. level= 0.001, it can be concluded that safety system in multilevel management of staffs of Shiraz University of medical science did not have a proper position. Mohammad Fam (2015) found in his research that safety system position was appropriate. Therefore, the results of the first hypothesis in present research are not in agreement with results of Mohammad Fam (2015). It seems that different organizations used in present research and in the research of Mohammad Fam caused such disagreement. In addition, Hu (2011) found in his research that safety system has not had a proper position in industries. In this way, results of present research are in agreement with results of Hu (2011). To explore this hypothesis, it can be said that there is no proper safety in medical science University of Shiraz because this organization has ignored the standards of safety. It seems that health issues have influenced on inappropriate position of safety. In addition, results of the present research indicated that mean health system position in multilevel management of staffs of Shiraz University of medical science was 3.67. Concerning T= - 9.807 and Sig. level= 0.001, it can be said that health system in multilevel management of staffs of Shiraz University of medical science has a proper position. Pinto (2011) found in his research that health position was proper in industries. Asli (2012) evaluated factors affecting health and safety system. He came up with the conclusion that appropriate planning and policy led to establishment of health and safety system, thus better application and effectiveness were resulted. Farshad (2006) evaluated the role of HSE system in improvement of health, safety and environmental performances of organizations. He concluded that health and safety indicators have been improved although the number of staffs, projects and work hours has increased. Therefore, the results of the second hypothesis in present

research are in agreement with results of Pinto (2011), Asli (2012) and Farshad (2006). To explore this hypothesis, it can be said that skillful human sources in field of health as well as top managers' attention to health position caused proper position of health system in multilevel management of Shiraz University of medical science. The results of present research indicated that there was a significant difference between views of women and men on health and safety system position in multilevel management. Furthermore, results showed that women evaluated high level of health and safety system in multilevel management due to their high means. Choudhry (2007) noticed in his research that safety system was more important for men than women. Therefore, results of the present research are not in agreement with results of Choudhry (2007). It seems that different organizations used in present research and that of Choudhry (2007) caused such disagreement. Tom et al (2004) found that women evaluated more appropriately the position of safety and health system. Therefore, the results of the second hypothesis in present research are in agreement with those of Tome et al (2004). Results also showed that there was a significant difference among views of individuals with different educations on safety system position in multi-level management (F= 4.203, Sig. level= 0.015). Results indicated that there was a significant difference between views of individuals with diploma and lower degrees and individuals with M.A or higher degrees. Asli (2012) found that individuals with higher educations evaluated more positively safety system. Arjomandi (2008) found in his research that safety in work place of individuals with lower educations was less important. The results of the fourth hypothesis in this research are in agreement with those of Asli (2012) and Arjomandi (2008). To explore this hypothesis, it can be said that individuals with higher education evaluate properly the position of safety in multilevel management of Shiraz University of medical science because they have

better understanding from safety and its position. Results of present research showed that there was a significant difference between views of individuals with different educations on health system position in multilevel management (F= 6.034, Sig. level= 0.003). Results also indicated that there was a significant difference between views of individuals with diploma and lower degrees and those with M.A and higher degrees. Mohammad Fam (2015) found in his research that individuals with higher education view health system in a higher position. It can be expected that results of the fifth hypothesis in present research are consistent with those of Mohammad Fam (2015). To explore this hypothesis, it can be said that individuals with higher education pay more attention to health showing their sensitivity to healthy issues. Therefore, individuals with higher education evaluate properly health system position in multilevel management of Shiraz University of medical science due their sensitivity to healthy issues. Results showed that safety system did not have a good position in multilevel management of staffs of Shiraz University of medical science whereas health position had a proper position multilevel management of staffs of Shiraz University of medical science. Results revealed that women evaluated high level of safety and health system in multilevel management due their high means. According to results, there was a significant difference between views of individuals with diploma and lower degrees and those with M.A and higher education about safety system position. Results showed that there was a significant difference between views of individuals with diploma and lower degrees and those with M.A and higher degrees about health system position.

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