

Efficacy of Suggestion System in Hashemi Nezhad Hospital, Mashhad University of Medical Sciences during 2010-2012

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ARTICLE INFO	ABSTRACT
<p>Article type: Original Article</p> <hr/> <p>Article history: Received: 29-Nov-2014 Accepted: 01-Dec-2016</p> <hr/> <p>Keywords: Efficacy Hospital performance Suggestion system</p>	<p>Introduction: Suggestion system is a cooperative management method, which has been applied in organizations during the recent years. Suggestion system provides an opportunity for the staff, customers, and contractors to submit their ideas and suggestions to the manager to be applied if befitting. In this study, we aimed to evaluate efficacy of the suggestion system in Hashemi Nezhad Hospital of Mashhad University of Medicine Sciences.</p> <p>Materials and Methods: This descriptive survey was performed in all the staff (n=110) of Hashemi Nezhad Hospital of Mashhad, in 2012. The data collection instrument, which was a self-designed questionnaire including 22 items in three domains of hospital performance, efficiency, and personnel satisfaction, was distributed among the personnel. Validity of the questionnaire was determined by 10 Management experts, and its reliability was confirmed by a pilot study and Cronbach's alpha ($\alpha=0.9$). The data were analyzed using SPSS Version 16.</p> <p>Results: The results indicated that suggestion system had a moderate effect on all the three domains (hospital performance [38.51%], efficiency of hospital [37.57%], and personnel satisfaction [32.88%]).</p> <p>Conclusion: Efficacy of the suggestion system was in an average level. Conducting further studies on problems before the implementation of suggestion system can be effective in promoting efficacy of this system.</p>

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Introduction

Rapid changes in societies lead organizations to implement management approaches to adapt to volatile conditions and survive under competitive conditions.

Creating a competitive advantage in organizations is considered necessary. To this end, managers should either enhance service quality, or reduce operating costs by increasing the efficiency of performing organizational tasks (1).

Cooperative management is an important management approach to achieve the abovementioned objectives. Cooperative management helps with recognition of staff potentials and provides the required incentives for improving performance and lowering costs. Furthermore, it provides customer satisfaction through aligning the organizational and individual goals (2).

Currently, organizations and centers providing health-medical services are of key importance.

Annually, governments allocate a percentage of the total budget of the country to health and medical programs. In some countries, various management programs are offered to medical centers to lay the foundation for implementation of health projects and provide high-quality health services and to ensure governments that health centers achieve the determined objectives.

Suggestion system is a cooperative management system that has been implemented in many organizations including Mashhad University of Medical Sciences during the recent years. The suggestion system is considered as one of the main tools for constant improvement of organizations.

Suggestion system entails providing an opportunity for the staff, customers, and contractors to propose their ideas and suggestions about organizational problems to make ongoing improvement in the organization. To encourage suggestions, the staff offering their suggestions should be rewarded (3).

Suggestion system was first introduced to Japanese after the Second World War. Deming and Jozan were experts in Statistical Quality Control (SQC) and introduced the suggestion system and its management functions to the Japanese. The main incentive of suggestion system is increasing morale among the staff. To this end, suggestions are divided into a variety of individual and group categories. Moreover, the implementation of suggestion system is divided into three phases of 1) the efforts performed to attract and develop suggestions to increase morale among the staff; 2) training the staff; and 3) the economic aspects of the suggestion (4). In a study performed in 2010, Heidelberg, Germany, three factors encouraging the staff to offer their suggestions were studied. These factors included effective communication between members of suggestion system committee (the staff of this system) and those offering their suggestions, staff's viewpoint toward the effectiveness of suggestion system, and the individual characteristics of those proposing their suggestions (mainly mental and psychological health) (5).

Although in Iran the concepts of consultation and participation in the community are deeply rooted in Islamic and national values, participation is a new subject and is assumed to be associated with Western developments in the recent years (6). The reason for implementation of suggestion system in governmental organizations was the need for revision and evolution in the country's administrative system. However, in 1998, the authorities of the Iranian professional employer organization adopted suggestion system within the framework of the ministry as pilot, such that each ministry implemented this system in four provinces of Iran (3).

Considering the results obtained from the pilot studies conducted in Iran, on the 88th session of the country's Supreme Administrative Council (on 1.1.2000) officials of the administrative system, with suggestion of the Management and Planning organization, enforced establishment of suggestion system in all the public departments, organizations, and institutions. This law states that the Management and Planning Organization is responsible for implementing the plan. Management and Planning Organization approved the executive instructions of suggestion system and announced its implementation (3). The limited number of studies performed in Iran showed that suggestion system has a positive effect on improving hospital performance and staff satisfaction.

Khayat-zadeh in his study demonstrated a positive relationship between staff satisfaction and suggestion system. In addition, the results of a study performed in

Shahid Fayaz Bakhsh Hospital of Tehran, Iran, revealed that suggestion system had a positive effect on hospital performance. The significant point in the establishment of suggestion system in public organizations is that the scientific establishment of suggestion system leads to favorable results. However, the desired outcomes have not been achieved in the organizations implementing suggestion system as directive or circular (7). Given the importance of suggestion system, in this study, we aimed to evaluate the effectiveness of this system in Shahid Hashemi Nezhad Hospital, affiliated to Mashhad University of Medical Sciences, Mashhad, Iran.

Materials and Methods

This descriptive survey was conducted in all the staff of Hashemi Nezhad Hospital of Mashhad, Iran, (n=110) with Bachelor's or Master's degrees, in 2012.

The data collection tool was a researcher-made questionnaire, the validity of which was approved by 10 experts in the field of Public Management (67%). Its reliability was determined with performing a pilot study using a sample size of 15 and Cronbach's alpha coefficient ($\alpha=0.90$).

The questionnaire includes 22 items rated on a 5-point Likert scale (poor [1], average [2], good [3], very good [4], and excellent [5]). The scale is comprised of three domains, with six items pertaining to the relationship between suggestion system and hospital performance, 10 items associated with the relationship between suggestion system and efficiency, and six items pertinent to the relationship between the suggestion system and staff satisfaction.

Each domain is comprised of a main question and the other questions are considered as subsets of that question. In the performance and satisfaction domains, the maximum and minimum possible scores were 30 and 6, respectively. In the efficiency domain, the maximum and minimum possible scores were 50 and 10, respectively. In total, the highest and lowest possible total scores were 110 and 22, respectively.

Using Morgan table, 86 subjects were chosen as the study samples. All the 86 patients were given a questionnaire; totally, 74 cases (67%) completed the questionnaire. The data were analyzed using SPSS Version 16, so that at first, the correlation between questions in each domain with the main question was assessed using Pearson's correlation coefficient. Then, ANOVA was performed to assess the relationship between suggestion system and the three variables of staff satisfaction and hospital performance and efficiency. In this study, the participants were assured of confidentiality of the data, and informed consent was obtained from all the participants.

Results

Among the participants, eight cases had Master's degree and 66 had Bachelor's degree.

Pearson's correlation coefficient reflected that there was a good correlation between the main question in each domain and the subset questions (Table 1).

Table 1: Suggestion system and performance domain

Questions	Pearson's correlation coefficient	Mean	SD
The main question: To what extent implementation of the suggestion system has increased efficiency in the hospital?	1	1.9	0.75
To what extent implementation of suggestion system has led to identification of waste?	0.443	1.8	0.86
To what extent the implementation of suggestion system has led to saving resources by eliminating waste?	0.501	1.8	0.93
To what extent the implementation of suggestion system has led to facilitation of the organization's operational affairs?	0.538	1.8	0.93
To what extent the implementation of suggestion system has led to reduced hospital costs by eliminating waste?	0.568	1.7	0.85
To what extent the implementation of suggestion system has led to improved spirit of individual and group participation of the hospital staff?	0.505	1.8	1
Domain of suggestion system and efficiency			
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To what extent the implementation of suggestion system has led to reduced hospital costs by eliminating waste?	0.568	1.7	0.85
To what extent the implementation of suggestion system has led to improved spirit of individual and group participation in the hospital staff?	0.505	1.8	1
To what extent the implementation of suggestion system has led to increased sense of responsibility regarding organizational development and organizational efficiency among the staff?	0.483	1.9	1.89
To what extent the implementation of suggestion system has led to alignment of individual and organizational interests?	0.403	1.7	0.88
To what extent the implementation of suggestion system has led to increased knowledge and awareness about the job?	0.513	1.9	0.90
To what extent the implementation of suggestion system has led to identification of creative staff in the hospital?	0.515	1.9	1
Domain of suggestion system and personnel satisfaction			
The main question: To what extent the implementation of suggestion system has led to increased staff satisfaction?	1	1.6	0.81
To what extent the implementation of suggestion system has led to increased appeal for the job (job enrichment)?	0.707	1.6	0.77
To what extent the implementation of suggestion system has led to increased employee relationship and sharing each other individual knowledge and experiences?	0.668	1.9	0.87
To what extent the implementation of suggestion system has been effective in providing award based on individual knowledge and skills?	0.676	1.6	0.78
To what extent the implementation of suggestion system has created a safe, clean, and quiet environment in the hospital (been effective in this regard)?	0.816	1.6	0.85
To what extent the implementation of suggestion system has led to recognition of potentials of the employees offering their suggestions?	0.775	1.8	0.84

The results obtained from One-way ANOVA demonstrated that the effect of suggestion system on hospital performance was moderate ($n=1.87$, $v=0.779$). Also, there was a moderate relationship between implementation of suggestion system and hospital efficiency ($n=1.8$, $v=0.819$). ANOVA reflected a poor relationship between implementation of suggestion system and staff satisfaction ($n=1.68$, $v=0.684$).

Discussion

This cross-sectional, descriptive study was applied in terms of the type of objective was performed to evaluate the effectiveness of suggestion system in Hashemi Nezhad Hospital, affiliated to Mashhad

University of Medical Sciences., Mashhad, Iran The majority of the participants stated that the effect of suggestion system on hospital performance was moderate.

Similarly, most of the participants reported that the effect of suggestion system on hospital efficiency was moderate and more than half of them assumed that the effect of suggestion system on staff satisfaction was moderate or higher. In a similar study performed in Ayatollah Kashani Hospital in Kerman, Iran, by Khayat-zadeh, the relationship between suggestion system and staff satisfaction was confirmed, which is in line with the results of the present study. Moreover, Mosadegh Rad proposed that suggestion system had a

positive effect on performance of Fayaz Bakhsh Hospital of Tehran, Iran [8].

In studies evaluating the success factors influencing the implementation of suggestion system in Europe, it was revealed that three factors of work environment, shape and structure of suggestion system, and the staff's individual characteristics had a key role in motivating staff to provide innovative suggestions [5].

On the other hand, the results of a study by Janati et al. performed to determine the acceptability of suggestion system in Tabriz University of Medical Sciences, Tabriz, Iran, were not consistent with ours. In their study, only a limited number of personnel deemed suggestion system as efficient [9].

Conclusion

Few studies were performed on the success of suggestion system in the field of Medical Sciences in Iran. To the authors' best knowledge, this is the first attempt to evaluate the challenges facing the implementation of suggestion system to promote its efficacy in Mashhad University of Medical Sciences.

On the other hand, the most important factor that impedes implementation of suggestion system is the relevant structural problems. Therefore, it is

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recommended that a suitable structure in terms of speed in written response to the results of evaluating the suggestions, transparency of information, classification of suggestions based on reward and making a team structure for employees in the university be formed in order to the establishment of this system will be more developed.

Limitations

One of the main limitations of this study is lack of adequate awareness of the staff toward the management topics and terminologies, especially suggestion system, so the interviewer had to provide detailed information in this regard. Due to restrictions on entry into specific hospital departments, such as intensive care units and operating rooms, distribution and receiving the questionnaires was challenging. Different shifts (morning, afternoon, and evening) and displacement of personnel in these shifts was another limitation of this study.

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