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The Relationship Between Organizational Culture and Components of Knowledge Management Among Iranian Nurses.

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ABSTRACT

The knowledge management is one of the achievements of knowledge era. Today, it has attracted the attention of successful organizations. The corporate culture change is one of the most important aspects of knowledge management system. However, this study aimed to investigate the relationship between organizational culture and knowledge management among nurses in hospitals of Zahedan University of Medical Sciences. This was cross-sectional (correlation) study. Using simple random sampling method, 250 nurses were selected as sample from hospitals of Zahedan University of Medical Sciences. The data were collected using a questionnaire which consisted of three parts: demographic data, Denison's organizational culture, and Lawson's knowledge management; its reliability was determined to be higher than 90 percent. Sing SPSS 15, the data were analyzed using descriptive (frequency, chart, mean) and analytic (Spearman correlation coefficient) statistics. The findings showed that all measures of organizational culture have similar mean scores; the organizational culture dimensions suggested stability and external focus in organization. Among the knowledge management subscales, the knowledge organization and knowledge retention had the highest (10.7) and lowest (9.8) mean, respectively. Also, there was significant and positive relationship between organizational culture and knowledge management of nurses ($P < 0.001$). It was concluded that the participatory culture increased the flexibility of nurses in meeting the needs of patients. However, the knowledge management would play an important role in achieving the main mission of hospital.

Keywords: Knowledge Management, Organizational Culture, Nurse.

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INTRODUCTION

Today, many changes have been occurred in human life. As a subset of human life, the organizations should be ready for dealing with these changes to continue their survival and growth. The knowledge management is one of the issues which has been discussed in recent years. The organizations may use it as a tool to achieve their goals [1]. Kole (2004) stated that the scientific methods of knowledge management should be used due to increasingly accelerated pace of change, loss of employees, global integration, and revolution in information technology [2]. In general, the knowledge management is a process which helps organizations to identify, select, organize, and publish the important information and skills which are considered as organizational memory and typically are not organized. This enables the organizations to perform efficiently and effectively the learning problem solving, strategic planning, and dynamic decision-making [3].

On the other hand, one of the essential requirements for knowledge management is providing infrastructures and factors affecting it. As long as necessary infrastructure will not be provided, the knowledge management and treating it as the centerpiece of development and economy will not be realized [4]. In this regard, the organizational culture is one of the factors affecting success of knowledge management in organizations. In fact, the organizational culture is the basis of knowledge management [5]. In fact, the culture of any organization is the result of years of experience in the way of achieving the objectives of organization and the relationships that people have to achieve these goals. The communication with each other during the work creates values and acceptable behavior patterns; all of these can be considered an organizational culture [6].

Plunkett believed that seven factors shape the culture of most organizations including key processes of organization, dominant coalition, employees and other tangible items, official arrangements, social system, technology, and external environment [7]. When the culture of organization is established, several actions must be carried out to maintain the culture to not be destroyed or suffered from major changes or weakness. As the organization expands, new systems are installed and replaced, and the relations between managers and employees begins in formal hierarchical narrow channels, the staff feels that they are separated from managers; due to huge amount of executive works, the managers ignore staff. In this situation, the employees gradually ignore organization's primary culture. Therefore, the initial culture's nature is changed; it becomes a new dominant culture with different characteristics which is sometimes contrary to initial culture. To avoid such events in organization and continue the development of organizational culture, the managers and officials should take measures to communicate with members of organization at any circumstances and maintain the values of organization in different ways [8].

The research shows that the organizations with strong cultures perform better and their members have high level of performance. In general, it can be said that the culture plays different roles and is responsible for various functions in organization. First, the culture determines organizational boundaries and separates the organizations. Second, it provides a sense of identity to members of organization. Third, the culture creates commitment in individuals; it is something much more than personal interests. Fourth, the culture stabilizes the social system. Socially, the culture is considered to be a kind of glue which may provide appropriate standards (what the members of organization say or do) to connect the components of organization. Finally, the culture is considered as a control factor which creates or shapes the attitudes and behavior of employees [8].

Alavi and Leidner (2006) stated that the research on failure of various knowledge management practices have showed that the organizational culture is an obstacle to success of knowledge management [9]. The research clearly confirms the relationship between organizational culture and knowledge management measures. For example, DeLong and Fahey (2000) showed that a high percentage of organizations which developed knowledge management strategies have not achieved their goals; they reported the organizational culture as the main obstacle to creation and application of knowledge capitals. The change of culture is one of the most important aspects of knowledge management systems. Therefore, it is essential to investigate the organizational culture and its impact on establishment of knowledge management [10].

On the other hand, it is essential to be considered due to rapid changes in present world, the importance of organizational culture, its impact on all functions and consequently on knowledge management,

and the importance of hospitals which are the main organizations providing services in the field of health care. The healthcare system aims to ensure physical, psychological, and social health of people and create an environment in which the human resources will be able to provide high quality and more effective services. However, the human resource is the most valuable element in achieving the organizational objectives. It is obvious that as an important member of treatment team, the nurses play an important role in providing high quality health care services. The findings of a study showed that 58 percent of deaths due to medical errors in United States can be prevented; this error reduction is associated with some organizational culture characteristics such as good communication patterns, fair reward system, self-control, and support [11]. Also, Jafari and colleagues investigated the relationship between structural and cultural factors of organization and knowledge management strategies in general hospitals of Tehran University of Medical Sciences. They concluded that given the correlation between knowledge management and organization's structural and cultural factors, and the role of knowledge in quality of medical services which are provided by these centers, the organizational structure and culture should be considered comprehensively to establish knowledge management in healthcare centers [12].

Considering the literature and importance of this issue, this study aimed to investigate the relationship between knowledge management and organizational culture among employees in Zahedan University of Medical Sciences to provide useful information for managers to handle the defects and change and modify the undesirable organizational factors. It is hoped that this will lead to improved performance, increased quality of health care, and successful changes in medical centers.

MATERIAL AND METHOD

This was applied descriptive- survey research. The population consisted of all medical staff in hospitals of Zahedan University of Medical Sciences in 2015 (N= 688). According to Morgan table, the sample size was determined to be 248 participants. The number of participants in each hospital was determined proportional to total number of nurses in each hospital. Using simple random sampling method, then, the sample was selected.

The data was collected using a questionnaire consisted of three parts: demographic variables, Denison's 60-item organizational culture (2000), and Lawson's 24 questions knowledge management (2003). The Denison's organizational culture questionnaire consisted of components including engaging in work (empowerment, team orientation, development of capabilities), integrity (fundamental values, consensus, coherence, and coordination), adaptation (change, customer orientation, organizational learning), and mission (strategic purpose and direction, goals and objectives, and vision) which investigated stability, flexibility, internal focus, and external focus in organization [13]. Lawson's knowledge management questionnaire examined the knowledge creation, capture, organization, storage, dissemination, and application [14]. The 5-point Likert scale (strongly disagree=5, strongly agree=1) was used to value organizational culture and knowledge management components.

The final questionnaire was distributed among a number of experts to determine its validity. Then, 40 questionnaires were distributed among nurses in hospitals of Zahedan University of Medical Sciences to determine its reliability. After collecting them, the reliability was calculated using Cronbach's alpha; it was determined to be above 90 percent. Using SPSS 15, finally, the collected data were analyzed using descriptive (frequency, percentage, mean, and charts) and analytic (Spearman correlation coefficient) statistics.

RESULTS

In this study, 250 nurses employed in hospitals affiliated to Zahedan University of Medical Sciences were studied. According to table 1, the majority of participants were female, married, younger than 40 years, and had work history of less than ten years.

Table 1: Distribution and frequency percentage of demographic variables

Demographic variables	Frequency	Percentage
Gender		
Female	215	86.0
Male	35	14.0

Age		
Less than 30 years	108	43.2
30 to 40 years	99	39.6
More than 40 years	43	17.2
Marital status		
Single	83	33.2
Married	167	66.8
Work history		
1-5 year	83	33.2
6-10 years	75	30.0
11-15 years	49	19.6
16-20 years	17	6.8
More than 20 years	26	10.4

Table 2 shows the mean and standard deviation of organizational culture and knowledge management scores. The findings indicated that all subscales of organizational culture had similar mean score. But among the knowledge management subscales, the knowledge organization and knowledge retention had the highest (10.7) and lowest (9.8) mean, respectively.

Table 2: Mean and standard deviation of organizational culture and knowledge management

Scale	Mean	Standard deviation
Organizational Culture		
Engaging in work	45.8	8.5
Integration	47.9	10.1
Compatibility	47.2	9.2
Mission	48.7	10.9
Total score (60-300)	189.7	35.1
knowledge management		
Creating knowledge	10.4	2.9
Attract knowledge	10.2	3.0
Organize Knowledge	10.7	3.0
Reserve knowledge	9.8	2.8
Dissemination of knowledge	10.3	3.2
Application of knowledge	10.4	3.2
Total score (24-120)	62.0	15.4

The scheme of organizational showed that except the vision and objectives which were in third quarter, other subscales were in first or second quartile. The study of organizational dimensions showed that the nurses are less likely to seek flexibility and coordination with external environment; they show tendency to external focus (Chart 1).

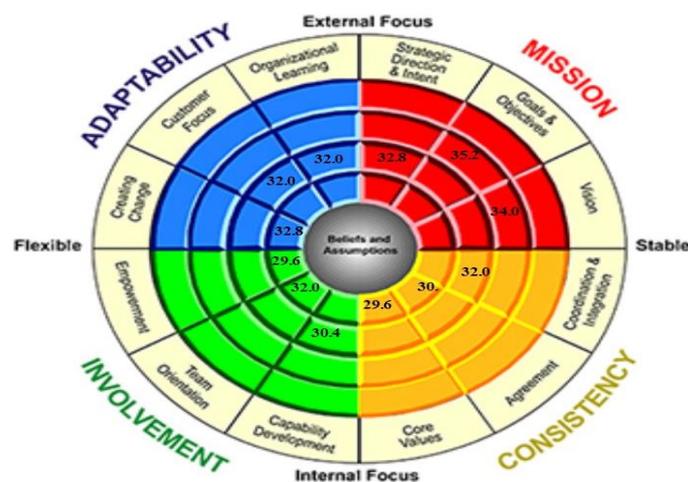


Figure 1: Scheme of organizational culture

According to Table 3, there is a significant and positive relationship between organizational culture and knowledge management of nurses in hospitals of Zahedan University of Medical Sciences ($P < 0.001$).

Table 3: Results of correlation coefficient to examine the relationship between organizational culture and knowledge management

Index	Number of participants	Correlation coefficient	Sig. level
Organizational Culture* Knowledge Management	250	0.50	0.001

DISCUSSION AND CONCLUSION

The study of organizational culture indicated that the scores of all dimensions are relatively equal. Based on Denison model, due to inherent contradictions in various dimensions of culture, the balanced growth of various dimensions is the best possible situation for an organization. However, the study of organizational culture suggested that the organizational culture is stable and has a tendency to external focus. This is consistent with the study of Ghorbani et al. [15] who showed that organization has more tendency to be stable. However, the environmental conditions of health organizations are variable; therefore, the flexibility in these conditions is a requirement for them. If the organizational culture lacks flexibility, participation, and creativity, the employees will not be willing to innovation, change, and creation of new ideas and will be afraid of sharing and exchanging their knowledge with others. While, a dynamic, collaborative, and flexible culture will react well to changes and put the organization in the path of progress and prosperity.

The findings showed that the knowledge management of employees was less than the average. Shirvani and colleagues (2009) investigated the knowledge management processes in Esfahan University of Medical Sciences. The findings showed that all conditions for establishment of six knowledge management processes were less than average. They concluded that the most important challenges for public organizations is using organizational knowledge and modern management tools such as knowledge management [16]. Tabibi et al (2011) studied the components of knowledge management in hospitals of Iran University of Medical Sciences. They concluded that the condition of knowledge management was higher than average [17]. In a study entitled (Knowledge management), Walden University (2003) reported that the knowledge management and its processes are the factors affecting the development and survival of organization. It was also mentioned that the lack of knowledge-oriented leaders who support knowledge management in organizations is one reason for organizations' backwardness in this century. It was reported that the strong organizational culture is an important factor in implementation of knowledge management which impacts on position of organization [18].

Today, the update information and knowledge is an important for personal and social life development. It can be said that the power in different areas depends on updated individual and organizational knowledge acquisition and development [19]. The knowledge creation, storage, processing, and dissemination system should be created to provide anytime, anywhere access to needed knowledge to be able to achieve the goals [20]. The coordination with existing organizational culture is required to use knowledge management. The organizations have their unique cultures which show the ways of understanding and conceptualizing the events. The weak organizational culture prevents the individuals from sharing their expertise to maintain their personal power and efficiency. Therefore, the organizational culture is important to facilitate participation and knowledge creation [21].

In addition, the findings showed that there is moderate correlation between organizational culture and knowledge management. This is consistent with findings of Ameri, Karami, Delong, and Rastogi. As the basis and personality of organization, the organizational culture has an effective role in establishing Knowledge management. In order to effectively improve knowledge system and spread it across the organization, the organization should first consider the organizational culture. If the organizational culture will be strong, the implementation of knowledge management will be more successful. The studies in this area have shown that the culture has an important role in knowledge management, the successful knowledge management supports the culture, the appropriate personal and organizational behaviors should be determined for successful implementation of knowledge management, the type of organizational culture play a direct role in successful dissemination of knowledge management systems, and the effectiveness of implementing knowledge

management in organizations may be increased depending on nature and characteristics of organizational culture [25- 2]).

In this regard, Delong and Fahey (2000) reported that a competitive culture which motivates the employees and providing positive feedback are required for success of knowledge management in the organization. This competition culture and positive feedback may result in development and dissemination of knowledge in organization. Finally, it can be concluded that the organizational culture and creation of knowledge need each other to be developed [10].

The different cultural, family, social, and economic conditions of participants and the impact of their positive and negative feelings toward the organization on their answers in completing the questionnaire were among the limitations of this study.

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