

ARTICLE

THE RELATIONSHIP BETWEEN ORGANIZATIONAL CULTURE AND KNOWLEDGE MANAGEMENT IN NURSING SYSTEM AT HOSPITALS OF IRANSHAHR CITY

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ABSTRACT

The main advantage of today's organizations is knowledge. Knowledge is a powerful tool that is developing and changing day-to-day, and knowledge control and management requires supporting and improving the organizational culture. Thus, paving the way for implementation of Knowledge management systems in the sense that makes members of the organization ready to cooperate in the implementation of Knowledge management plans are extremely important. The present study is applied in purpose and cross-sectional in terms of administration. The target population included all nurses in hospitals affiliated to Medical University of Iranshahr, which were estimated 134 nurses. The sample size was determined using Cochran formula and simple random sampling as 110 nurses. Data were collected through survey using the standardized knowledge management scale by Perust et al. and Organizational Culture Scale by Daniel Denison; also, the reliability and validity of the two were confirmed. The results of testing the hypotheses showed a significance relationship between Organizational Culture and knowledge management. Also, the generalization of data was good and indicated the significance of all components of organizational culture (Participation culture, compatibility culture, adaptability culture, responsibility culture) with knowledge management. Promoting the dimensions of organizational culture to facilitate knowledge management cycle is recommended to managers and decision-makers of University of Medical Sciences and the hospitals.

INTRODUCTION

Today, knowledge is an integral part of the success of organizations. If the process of change and evolution of knowledge is closely assessed in contemporary society, the conclusion is drawn that the present postindustrial society is an information-based society where power-oriented technology is gradually replaced by knowledge oriented technologies. In today's dynamic and complex environment, it is essential for organizations that constantly employ the new knowledge in the form of: establishing credibility and use in their products and services. In this context, Peter Drucker says: "the secret of success in the 21st century is knowledge management." So the concept of knowledge management is more important than the knowledge itself, it seeks to explain and clarify the way individual and organizational information is transformed to Individual and group knowledge [1]. Understanding the real role of knowledge in organizations helps to find an answer to the question of why some organizations are always successful. Understanding what factors contribute to the survival of an organization and bring a lively existence for it, is closely related to the concept of knowledge and how it's used in the organization [2]. Thus, having the natural resources cannot be just as important as knowledge. Knowledge-based organization achieves capabilities that enable it to make a great strength of a little power. Knowledge management is a new effort of the century—known as the era of knowledge—to preserve, guide, and increase the knowledge investments of the organizations and points that investment in science is the best and most profitable way [3]. Knowledge management is the process of knowledge creation, knowledge acquisition, knowledge storage, knowledge dissemination, knowledge sharing and finally, the application of knowledge. An organization needs to identify, acquire and storage the knowledge it requires to be able to use it when needed. The purpose of knowledge management in the organization is its condition in terms of attention, collection, preservation and dissemination of its required knowledge [4]. Hence, knowledge management includes the processes of creating knowledge, crediting knowledge, shaping it, and distribution and scientific application of knowledge in the organization [5]. Knowledge management by creating the necessary processes to identify and capture data, the required information and knowledge about internal and external environment and transferring them into important decisions and actions of organizations and individuals has a big share in system feedback [6]. Furthermore, the organizational culture is one of the most important elements of any organization which is associated with feeling, thought, and work of personnel and any speech, opinion and behavior takes its direction [7]. Organizational culture is the dominant behavioral pattern between people in an organization that is formed based on values, beliefs, and habits of people and will be supported by the majority of people. It is influenced by factors such as monitoring, control, communication, participation, conflict, cooperation, respect for social values, etc [8].

KEY WORDS
Knowledge management, organizational culture, nurse

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Denison considers organizational culture as an application for determining the values, beliefs, assumptions and common practices in the organization that shapes and guides the attitude and behavior

of members in the organization [9]. According to Edgar Schein organizational culture is shaped in response to two challenges every organization faces: the stability and integrity of the outer and survival and the unity of inner. The stability and integrity of the outer refers to the organization's situation in the environment, how can that organization face environmental changes [10]. By reviewing, modifying and creating an organizational culture that is flexible and appropriate, the pattern of interaction between people in the organization can be gradually changed and knowledge management can be used as a competitive advantage [11].

So given that today the world's most important feature is change, organizations are forced to rely on members as their most important asset and encourage them to understand, comprehend and provide new ideas and knowledge and to practically use the ideas for the objectives of organization. This activity requires that organizational culture is educating and supports knowledge-based activities as an important constituent of organizational character and behavior of personnel.

Also in this century due to changes in health care systems, organizations have many challenges such as increased costs and financial pressures, increased customer awareness, competitive markets, improving the quality, and cost effectiveness of the services. These changes need to increase of knowledge and information sharing and knowledge management techniques. The most important obstacle of an effective implementation of knowledge management is lack of culture of sharing knowledge and lack of understanding the myriad benefits of knowledge management among employees. Research also shows that knowledge-based culture, that includes values and beliefs of members of the organization in relation to the concepts of information and knowledge is the most important factor in the success of knowledge management. So, officials in the fields of health care can benefit from knowledge management tools to transform hospitals to learning hospitals and take an effective step for obtaining the required capabilities for this type of organizations. In the present study, the researcher intends to investigate the organizational culture among nurses working at hospitals of Iranshahr city; and then assess its relationship with knowledge management. Since these hospitals seek major developments in their level, results can provide the grounds for implementation and improvement techniques of excellence and organizational promotion in the hospital and improving its function.

KNOWLEDGE MANAGEMENT

Theoretical definition: knowledge management refers to establishing the processes necessary to identify and capture data, information and knowledge that an organization needs from internal and external environment and transfer them into decisions and actions of organizations and individuals [11].

Operational definition: In this study, knowledge management refers to the situation of an organization in terms of collecting, preserving, and disseminating the knowledge it requires which are assessed using knowledge management building blocks model by Perust et al. Its components include the following [7]:

1. Set the goals of knowledge: The aims of knowledge management should be derived from the main goals of the organization.
2. Identify knowledge: Understanding the sources of knowledge within and outside the organization.
3. Acquire knowledge: knowledge must be acquired from the identified resources at this stage (domestic and foreign markets).
4. Development and improvement of knowledge: the ways which contribute to the richness and promoting knowledge in organizations; including its support for the research institutions, human resource development and employing knowledgeable people.
5. Dissemination of knowledge: transfer knowledge in the interaction and communication between people.
6. Use of knowledge: to actualize the acquired knowledge and implementing knowledge in the organization.
7. Maintenance of knowledge: to selected the knowledge in accordance with objectives and save them in a way that is accessible, and to update them.
8. Knowledge assessment: the possibility of measuring the level of knowledge that will promote knowledge

ORGANIZATIONAL CULTURE

Theoretical definition: a system of common understanding among the members of an organization; this feature makes distinction among two organizations [12]. Operational Definition: In this research, organizational culture refers to the dominant atmosphere of the studied organization that is measured using a questionnaire by Daniel Denison. Its components include involvement, consistency, adaptability and mission of the organization.

Involvement

This index refers to capability development, sense of ownership, and accountability in people.

Consistency

Theoretical definition: the values and systems that are the basis of a strong culture. Operational definition: those employees who respect to the values of the organization and follow strong and ideal organizational

culture have the power of consistency. In Denison questionnaire, the variables related to consistency include: core values, agreement, coordination and integration.

Adaptability

Theoretical definition: translating the demands of the business environment to operation. Operational definition: organizations have the ability of to adapt to their customer needs and service requirements, through the acquisition of new knowledge and change. In this study, the adaptability consists of three components of organizational learning, customer focus, and creating change in Denison Organizational Culture Survey.

Mission

Theoretical definition: a significant long-term direction for the organization [12] operational definition: the mission of any organization, in fact, is the primary cause of and the reason for its establishment. The mission of organization is the main and unique destination that distinguishes an organization in terms of type, scope of operations, product and market and the customers from other organizations. The mission (general objectives of organization) expresses the values, aspirations and philosophy of the organization. In this study, the mission is measured using Daniel Denison survey which includes the components of the vision, goals and objectives, strategic direction and intent.

THEORETICAL FRAMEWORK

Nonaka explains the difference of organizations by means of management mental elements, such as management vision, system of values and commitment of staff. This is despite the fact that many management thinkers have avoided addressing the human mentality. For example, Simon (1945) emphasized that the actual assumptions must be separated value assumptions so that management becomes a science. So, as Flyvbjerg (2001) states social sciences are essentially different from natural sciences based on the need to address the mental affairs such as values, background and strength. Hence social science research cannot be assumed independent of subjective factors [13]. So, knowledge management process rarely can be used as a causal normative model. Since knowledge is mentally active in nature and involves commitment and belief that are deeply rooted in the value system [14]. In a study by Shirvani et al. on the subject of the rule of knowledge management processes carried out at the University of Medical Sciences, results showed that identification, acquisition, development, sharing, distribution, use and storage of organizational knowledge and its application with modern management tools such as knowledge management, has empowered the organizations in competitive conditions, and provided the preliminaries for their success. In a study by Tabibi et al., the principles of knowledge management in hospitals of Iran University of Medical Sciences were examined and findings showed that attention to the spread of knowledge, assessment of knowledge, application of knowledge, knowledge sharing and creation of knowledge is necessary. In a study by Sadoughi et al. titled as process-driven organizational memory model, a prerequisite for the implementation of knowledge management in the medical documents department, results showed that workers will have better performance if required knowledge and information is provided. In this research, the collection of variables and entities required for an organizational activity-based storage system was introduced as a means of conducting Knowledge management in the medical records departments. Karami et al. studied the application of knowledge management in clinical coding in health care organizations. Results showed that identifying and use of knowledge management tools can improve organizational performance [15]. Ahmadi et al. compared the existing organizational culture in Isfahan University of Medical Sciences with the desirable condition. Their results showed that a significant difference existed between the current and desired elements of organizational culture. Therefore, institutional and policy reforms related to knowledge management was proposed. Also, in a study by Jafar Jalal et al., that investigated the correlation among nurses' perceptions of their organizational culture and their performance in patient safety in hospitals of Babol University of Medical Sciences. The findings showed that optimization of organizational culture by the managers and officials in hospitals can improve the performance of nurses in the field of patient safety. In another study by Ahmadian et al. titled as the organizational culture from the perspective of nurses in selected hospitals of Tehran University of Medical Sciences, findings showed that organizational culture from the perspective of nurses is at a level that may reduce their performance. Hence, optimizing organizational culture to increase nurses' incentives and to improve their performance in providing high quality services is necessary.

HYPOTHESIS

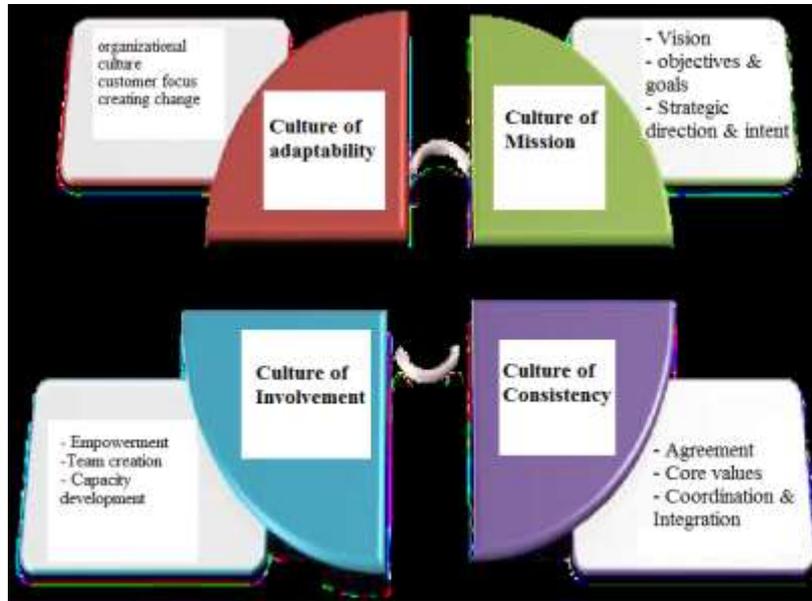
The main hypothesis

There is a relationship between organizational culture and knowledge management system in the hospitals of Iranshahr.

Secondary Hypotheses

1. There is a relationship between involvement and knowledge management among the nurses working in hospitals of Iranshahr.

2. There is a relationship between culture of consistency and knowledge management among the nurses working in hospitals of Iranshahr.
3. There is a relationship between culture of compatibility and knowledge management among the nurses working in hospitals of Iranshahr.
4. There is a relationship between culture of mission and knowledge management among the nurses working in hospitals of Iranshahr.



RESEARCH CONCEPTUAL MODEL: (RESEARCHER-BUILT)

This study is cross-sectional in administration and applied in purpose. The target population included all nurses of hospitals affiliated to University of Medical Sciences of Iranshahr (n=134). Sample size was determined using Cochran formula and simple random sampling as 110 individuals.

$$n = Nz^2 p \cdot (1 - p)$$

$$p \cdot (1 - p)z^2 + Nd^2 p \cdot (1 - p)$$

(N= 136; number of nurses in different wards of hospitals), (n= 110, sample size), (P = 0.5)-(Z0.95 for level of sig. 95%- 1.96), (d precision, if the value is 5% the figure d=0.05 enters)

Data collection was done through survey method using a standard questionnaire with confirmed reliability and validity. To investigate KM the building blocks of knowledge management model of Proust et al., and for organizational culture Daniel Denison model is used.

Organizational Culture Survey: the questionnaire was developed by Denison in 2000. The number of questions in the questionnaire consisted of 60 questions in based on a 5 degrees Likert scale (from strongly disagree to strongly agree). Questions 1 to 15 refer to culture of involvement including: empowerment, team-building, developing capabilities; 16-30 refer to cultural compatibility component, including core values, agreement, coordination and integration, 31 to 45 refer to components of culture f adaptability, including: creating change, customer focus, organizational learning; and 46-60 refer to cultural mission component including: strategic direction, goals and objectives, vision [16]. Shirin has estimated the validity of the questionnaire in Iran as 82.5% Cronbach's alpha [17].

Cvr:0.82.5 The index of content validity ratio (the most important and most accurate content)

Cvi:0.84 The index of content validity (selecting tool items in the best possible way)

Table 1. Cronbach's alpha coefficient of components of organizational culture

	Involvement	Consistency and integration	Adaptability	Mission	Total
Cronbach's alpha	84%	74%	87%	85%	82.5%

Knowledge management questionnaire: This questionnaire contains 21 questions based on 5 degrees Likert scale, and measures 8 elements of Knowledge management. Questions 1 and 2 refer to set the goals of knowledge, question 3, 4, and 5 to identifying Knowledge, questions 6 and 7 to acquiring knowledge, questions 9,8 and 10 to knowledge development, questions 11 -14 to knowledge sharing, questions 15 and 16 to use of knowledge, questions 19,18,17 to maintenance of knowledge, and questions 20 and 21 to knowledge assessment. Galvani (2008) in their study calculated the reliability of the questionnaire through Cronbach's alpha as94% [18]

Cvr:0.84 The index of content validity ratio (the most important and most accurate content)

Cvi:0.86 The index of content validity (selecting tool items in the best possible way)

For data analysis through correlation (regression analysis) SPSS software was used. First, demographic variables such as age, sex, education level, work experience, and employment type were reviewed in frequency tables and figures; and then the questions and hypotheses were examined to find the relationship between variables. In this research, organizational culture and knowledge management aspects were the independent variable and knowledge management was the dependent variable.

FINDINGS

There is a relationship between involvement culture and knowledge management among the nurses working in hospitals of Iranshahr. This hypothesis is tested using Spearman correlation at $\alpha=0.05$. The p value is less than alpha, so: the hypothesis of no correlation between culture of involvement and knowledge management among the nurses working in hospitals of Iranshar is rejected. The correlation coefficient was obtained for involvement culture and knowledge management as 0.445, i.e. a significant direct relationship exists between involvement culture and knowledge management among the nurses working in hospitals of Iranshahr. [Table 2]

Table 2: results of Spearman correlation test between culture of involvement and knowledge management among nurses of Iranshahr hospitals

Variable	Mean	Sd	r	p
Involvement culture	50.61	8.891	R= 0.0445	P= 0.000
Knowledge management	60.573	13.769		

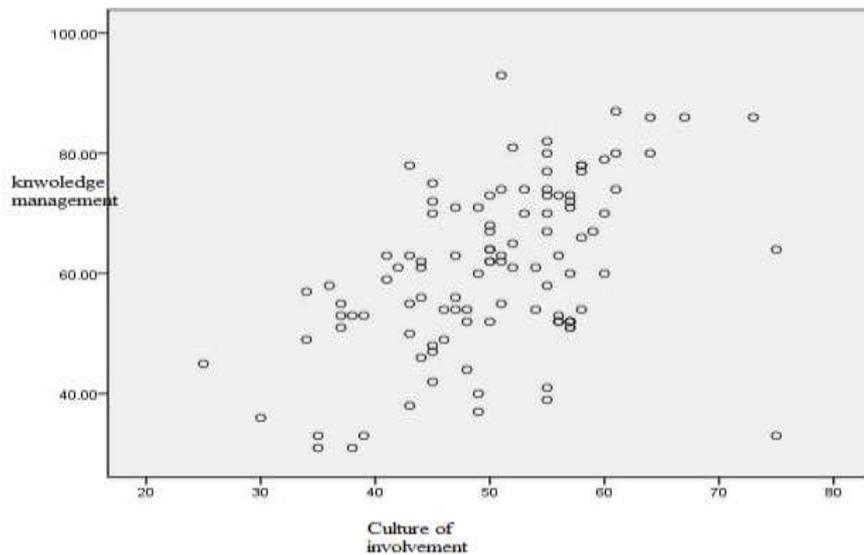


Fig. 1: The correlation Fig. between culture of involvement and KM

There is a relationship between culture of consistency and knowledge management among the nurses working in hospitals of Iranshahr. This hypothesis is tested using Spearman correlation at $\alpha=0.05$. The p value is less than alpha; so, the hypothesis that no correlation exists between culture of consistency and knowledge management among the nurses working in hospitals of Iranshar is rejected. The correlation coefficient was obtained for culture of consistency and knowledge management as 0.607, i.e. a significant direct relationship exists between culture of consistency and knowledge management among the nurses working in hospitals of Iranshahr. [Table 3]

Table 3: The results of Spearman correlation test between culture of consistency and KM among nurses of Iranshahr hospitals

Variable	Mean	Sd	r	p
culture of consistency	47.65	8.749	R= 0.607	P= 0.000
Knowledge management	60.573	13.769		

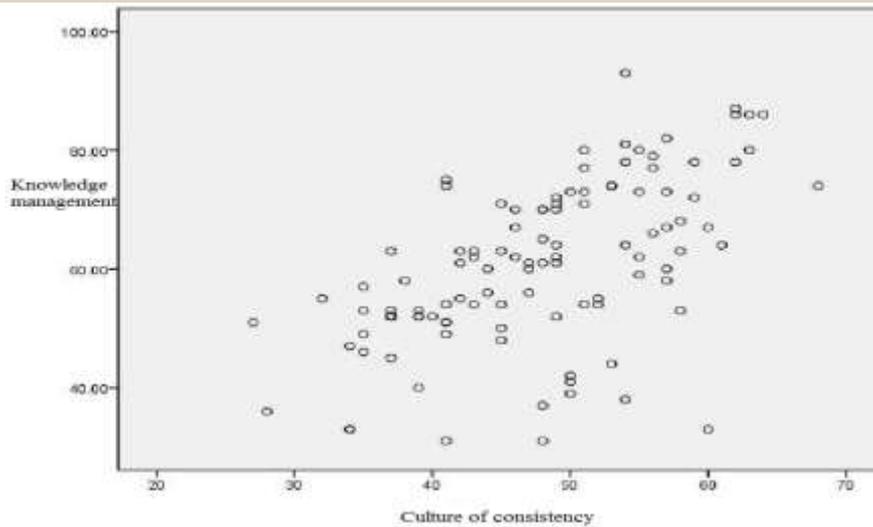


Fig. 2: The correlation Fig. between culture of consistency and KM

There is a relationship between culture of adaptability and knowledge management among the nurses working in hospitals of Iranshahr. This hypothesis is tested using Spearman correlation at $\alpha=0.05$. The p value is less than alpha, so: the hypothesis of no correlation between culture of adaptability and knowledge management among the nurses working in hospitals of Iranshar is rejected. The correlation coefficient was obtained for culture of adaptability and knowledge management as 0.492, i.e. a significant direct relationship exists between culture of adaptability and knowledge management among the nurses working in hospitals of Iranshahr. [Table 4]

Table 4: The results of Spearman correlation test between involvement culture and knowledge management among nurses of Iranshahr hospitals

Variable	Mean	Sd	r	p
culture of adaptability	49.87	9.632	R= 0.0492	P= 0.000
Knowledge management	60.573	13.769		

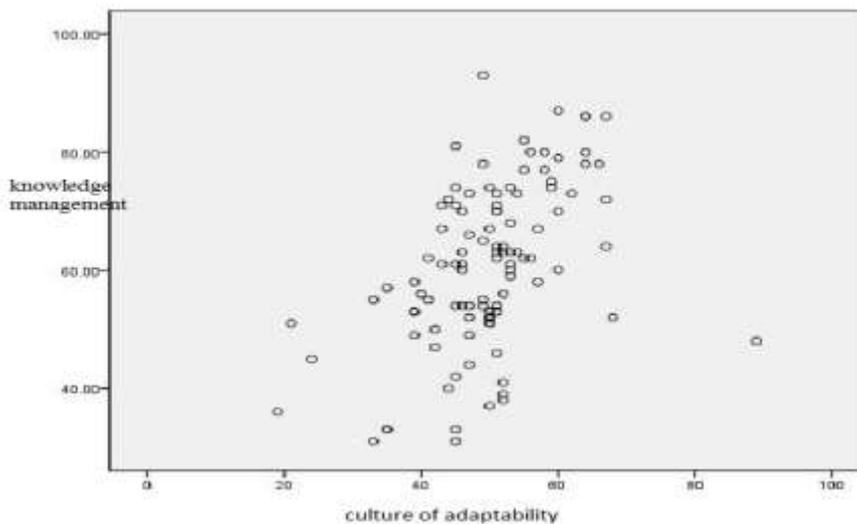


Fig. 3: The correlation Fig. between culture of adaptability and KM

There is a relationship between culture of mission and knowledge management among the nurses working in hospitals of Iranshahr. This hypothesis is tested using Spearman correlation at $\alpha=0.05$. The p value is less than alpha, so: the hypothesis of no correlation between culture of mission and knowledge management among the nurses working in hospitals of Iranshar is rejected. The correlation coefficient was obtained for culture of mission and knowledge management as 0.60, i.e. a significant direct relationship exists between culture of mission and knowledge management among the nurses working in hospitals of Iranshahr [Table 5]

Table 5: The results of Spearman correlation test between culture of mission and KM among nurses of Iranshahr hospitals

Variable	Mean	Sd	r	p
Culture of Mission	47.75	10.699	R= 0.600	P= 0.000
Knowledge management	60.573	13.769		

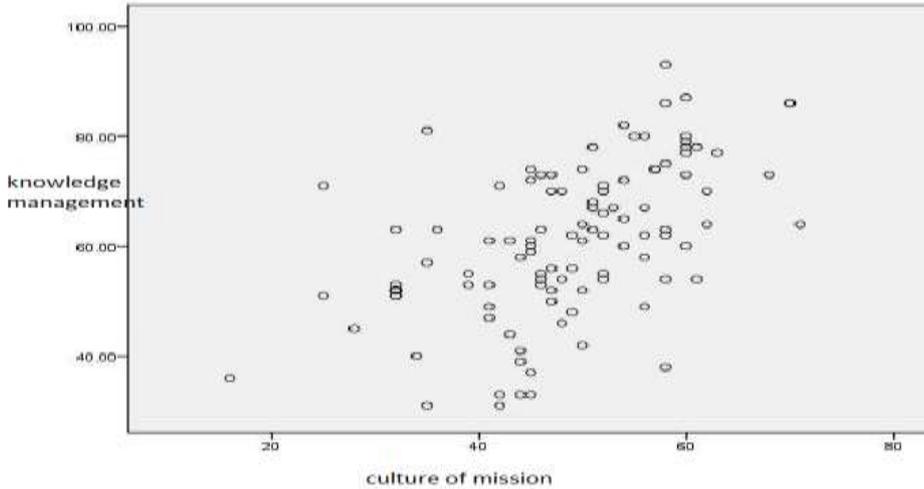


Fig. 4: The correlation Fig. between culture of mission and KM

The main hypothesis

There is a relationship between organizational culture and knowledge management in the nursing system in hospitals of Iranshahr. This hypothesis is tested using Spearman correlation at $\alpha=0.05$. The p value is less than alpha; so, the hypothesis of no correlation between organizational culture and knowledge management in the nursing system at hospitals of Iranshar is rejected. The correlation coefficient was obtained for organizational culture and knowledge management as 0.620, i.e. a very significant direct relationship exists between organizational culture and knowledge management in nursing system at hospitals of Iranshahr. [Table 6]

Table 6: Spearman correlation test for organizational culture and KM in nursing system of Iranshahr hospitals

Variable	Mean	Sd	r	p
organizational culture	195.873	31.865	R= 0.620	P= 0.000
Knowledge management	60.573	13.769		

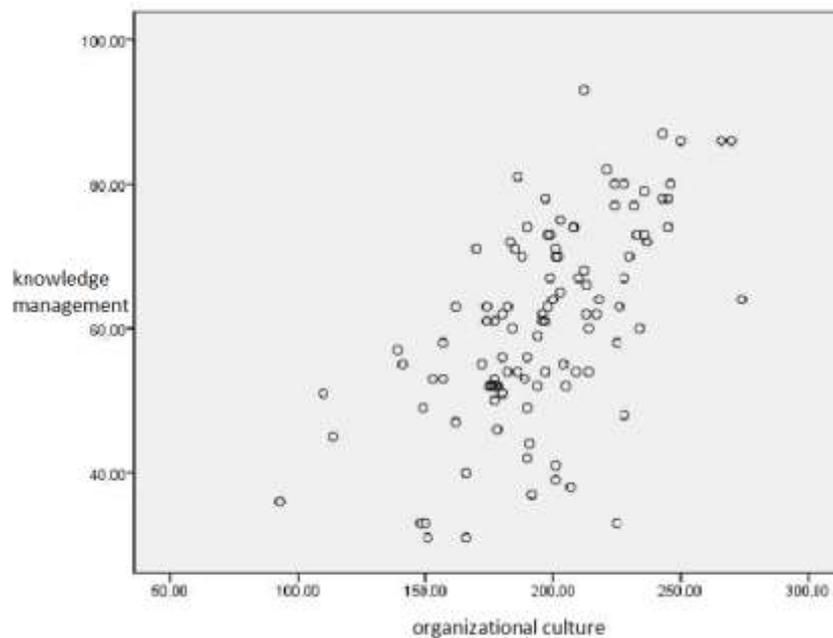


Fig. 5: The correlation Fig. between organizational culture and KM

DISCUSSION AND CONCLUSION

The present study was aimed at investigating the relationship between organizational culture and knowledge management in nursing system of Iranshahr hospitals. However, the results obtained from the questionnaires showed that, in the main hypothesis the organizational culture and knowledge management has a significant direct relationship. Also, test results show the significance of all components of culture of the organization (culture of involvement, the culture of consistency, the culture of adaptability, culture of mission) with knowledge management. The generalizability of findings was found to be good. The findings of Hussein Gholizdeh (2004) showed that 50.5% of changes in Knowledge management is explained by the organizational culture, and the aspects of organizational culture is effective on successful knowledge management. In another study at the educational units, results showed that team morale and cohesion (culture of involvement) is effective on knowledge sharing [9]. And in the Ghorbanzadeh et al. (2008) results show that the organizations that are interested in using the benefits of knowledge management should pay more attention to organizational culture, managers support, organizational structure, human resources and technology management to work in coordination with the knowledge management system [19].

As the results of this study indicate, organizational culture plays a significant role in the creation and development of knowledge management; and knowledge creation can be developed quickly in the hospitals. As Nonaka et al. expressed in Organizational Knowledge Creation cycle, sharing knowledge is the first step in the process of knowledge management and basically knowledge management plays an important role in the success of an organization [20].

The obtained results in this study points that knowledge management cannot be defined as information management or data processing. Knowledge management is essentially a human and social process which is of course facilitated and possible through technical and technological approaches [21]. The results show organizational culture has the greatest impact on knowledge management. According to Prabest and Rumhardt (1950) access to tools alone cannot guarantee knowledge management; thus, organizational culture can be useful in encouraging people to volunteerly knowledge management [22]. Gu 2002, Rawli, 2002, Soleman and Spooner, 2000; Dilong and Fehi, 2000; Swibi and Simon, 2002; Vanger, 2003; Vanrog 1998; Dale and Garison, 1998; Counter, Austin, and Juck, 1992; Renzel, 2006; Brink, 2001; and Young and Wun, 2003 agree that organizational culture based on trust can encourage people to interact and manage knowledge with others [23].

In view of the above findings, it can be concluded that knowledge management as an organizational strategy requires the support of organizational culture rather than technical support. Hence, paving the way for the establishment and implementation of the Knowledge management system in the sense that makes members of the organization ready to cooperate in the implementation of knowledge management is very important. Effort to promote organizational culture dimensions (culture of involvement, culture of consistency, culture of adaptability and the culture of mission) to facilitate knowledge management cycle

is recommended to managers and decision-makers of medical universities and hospitals. The findings of this study can be applicable to organizations, especially hospitals that want to gain competitive advantage and the benefits of knowledge management in the current turbulent and complex world.

CONFLICT OF INTEREST

Authors declare no conflict of interest.

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