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Relationship between Organizational Culture and Organizational Health in Employees of District 1 Iran Teaching Hospitals

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Background & Aims of the Study: Organizational health in hospitals can reduce medical errors, increase the quality of care, improve organizational learning, and enhance collaboration, innovation, and cost reduction. The remarkable success of successful organizations lies in organizational culture and employee beliefs. The aim of this study was to investigate the relationship between organizational culture and organizational health in the employees of Iran teaching hospitals.

Materials and Methods: This descriptive-analytical study was conducted on 946 employees of public hospitals in Iran, in 2019, including all the employees of 17 hospitals selected by random clustering. The assessment tools were the standard questionnaires of Edgard Schein's Organizational Culture and Organizational Health Inventory. One-sample t-test was used to determine the organizational health of the selected hospitals. Pearson's correlation coefficient was also utilized to determine the relationship between organizational culture and organizational health. Furthermore, the data were analyzed using SPSS software (version 25).

Results: The descriptive findings of the present study showed that 69% of the study subjects were female, and most (37%) of the respondents were within the age range of 40-49 years. In addition, about (61.7%) and (23%) of the participants had a bachelor's degree and 10-14 years of work experience, respectively. Moreover, the results of this study based on Pearson's correlation coefficients demonstrated that there was a positive and significant correlation between the component of organizational culture with organizational health (r=0.94) and all the dimensions of organizational health component at the institutional (r=0.92), administrative (r=0.92), and technical (r =0.93) levels with a 95% confidence interval (P≤0.05).

Conclusion: The results of this study indicated that there was a positive and significant correlation between the component of organizational culture with organizational health and its dimensions. Therefore, it is necessary to make decisions focusing on the organizational culture of hospitals and steps to coordinate individuals' values and norms for the promotion of organizational culture. It is also recommended to improve organizational health.

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Background

In order for organizations to not only be able to remain stable in their constantly changing environment but also adapt to their environment in the long term and acquire and expand the necessary abilities for their survival, they are

required to have organizational health (1). A consistently ineffective organization is certainly not healthy. Therefore, hospitals, as organizations providing health services, are no exception to this principle. The school of organizational culture is one of the newest schools of organizational theory. These values affect the behavior of the members of an organization, and individuals in the organization use these values as instructions for their decisions and behaviors (2). If organizational culture can be effective in organizational behavior, it also affects the individual learning of the employees of an organization (3).

Holozuki in a study showed that organizational culture is important in specifying the strategy of an organization and trusting the employees of the organization. Moreover, organizational culture gives freedom of action, encourages individuals to innovate, and supports managers to take risks causing individuals to try more to acquire, create, develop, and share knowledge in an organization (4). Edgard Schein considers culture a model of fundamental assumptions that are developed, discovered, or nurtured due to the accumulation of external adaptation difficulties and internal integration by a certain group (5).

Organizational culture plays an undeniable role in the success of business changes (6). In other words, the success and failure of organizations should be sought in their culture (7). In addition, along with the organizational culture, human capital in the organization is the most strategic and most basic way to increase the effectiveness and efficiency of an organization (8). Organizational culture as a phenomenon that is formed based on the policies and approaches of high-level organizational managers is the sum of the factors that have an important role in preventing the emergence of health inefficiency in departments and organizations (9).

Experts consider the proportion of organizational culture to an organization similar to the proportion of personality to an individual, which has an important role in shaping individual and organizational behavior (10). Leiden and Klingel defined organizational health as a relatively new concept, including not only the organization's ability to effectively perform duties but also the organization's ability to develop and improve (11).

Organizational health is the ability of an organization to successfully carry out its mission. Poulin and Leclerc also state that organizations that have become experienced and successful have the advantage of good organizational health (12). The perfect health of specialties and techniques results in increasing the responsibility of employees and improving the quality of products and services of organizations. Therefore, the efforts to improve the health and welfare of the working force should be initiated and continued by making an organization healthy (13). Therefore, organizational health refers to a healthy organization successfully dealing with external barriers and effectively directing its force toward the main goals and objectives of the organization (14).

In a study carried out by Kayed and Rossley, it was concluded that organizational culture has a direct and positive effect on organizational entrepreneurship indicators, including risk-taking, innovation, and pioneership (15). Sung and Zhao also showed in their study that organizational culture is related to social capital, and social capital can affect the capacity of integrating knowledge indirectly and through organizational learning (16).

In another study, Naranjo concluded that organizational culture is a key element in the enhancement or prevention of innovation. In this way, a decentralized and flexible culture increases new products and services, and a hierarchical culture hinders innovation in production (17). Lowe concluded that a healthy working organizational environment has a direct and positive relationship with employees'

productivity. A study carried out by Trudeau et al. demonstrated the existence of a relationship between school effectiveness and organizational health in high schools (18).

Block with the aim of explaining and determining the relationship between leadership behaviors and organizational health in primary schools concluded that there was a significant correlation between educational leadership and organizational health. The results obtained from regression analysis also showed that educational leadership is an important and significant predictor of organizational health (19).

In examining the relationship between organizational culture with innovation and organizational performance based on the Schein's model, Hogan and Kote indicated that organizational culture and its various dimensions have a positive and significant effect on the ratio of organizational innovation in law companies (20). Yildiz also reported that organizational culture influences organizational entreprene-urship (21). Zheng et al. showed that organizational culture is an important factor in entrepreneurial and innovative performance (22).

Despite various studies conducted on organizational culture and organizational health in various organizations in Iran, there have been a limited number of studies carried out on educational and medical centers. The importance of the health sector and its relationship with the human health domain and necessity to promote the quality of health services in an organization benefiting from organizational health reveal the need for performing this study. Due to the importance of organizational health for organizations, including hospitals, in order to increase effectiveness and efficiency, organizational culture plays a vital role in this regard. Accordingly, this study was conducted in line with the importance of organizational culture in the health of organizations. Therefore, the present study was performed to determine the relationship between organizational culture and organizational health among the employees of Iran teaching hospitals.

Materials & Methods

This descriptive-analytical cross-sectional study with the purpose of the application was carried out on the employees of district 1 teaching hospitals, including the general hospitals of universities (in Mazandaran, Babol, Semnan, Golestan, Shahroud, and Gilan, Iran) in 2019. Totally, out of 37 hospitals, 17 hospitals were selected by cluster and random sampling. All the employees (i.e., the managers and heads of hospitals, supervisors, matrons, heads of nursing services, nursing experts, and managers of health services) from clinical and paraclinical wards were considered the target population of this study (n=946).

Table 1 tabulates the names of the hospitals and number of examined individuals cooperating in the completion of the questionnaires. In total, about 1,000 copies of the questionnaires were distributed among the employees of the desired

Table 1) Teaching hospitals in Iran and number of studied individuals

Hospital	n	Hospital	n
Zare, Sari (Burns and Nerves)	59	Fifteenth Khordad, Mahdishahr	53
Fatemeh Zahra, Sari (Heart Center)	31	Kowsar, Semnan	90
Bu-Ali Sina, Sari	64	Taleghani, Gorgan	79
Imam Khomeini, Sari	65	Fifth Azar, Gorgan	71
Imam Khomeini, Behshahr	62	Shahid Sayad Shirazi, Gorgan	74
Imam Reza, Amol	64	Shahid Motahari, Gonbad	40
Razi, Ghaemshahr	51	Payambar Azam, Gonbad	21
Shahid Rajaei, Babolsar	43	Taleghani, Gonbad	21
Seventeenth Shahrivar, Marzikola	51	Total	946

hospitals in person. Out of 1,000 questionnaires, the incomplete ones were eliminated. Totally, 946 correct questionnaires were collected in this study (with a questionnaire return rate of 0.94).

Medical ethics code and study introduction letter were obtained from the relevant university for all the hospitals under study. In addition, the subject of the questionnaire was explained to those participating in the study with at least a bachelor's degree. Furthermore, informed consent was obtained, and the study subjects were assured of the confidentiality of their information. The individuals who were fully conscious and willing to participate were entered into the study. Moreover, the exclusion criteria were also the individuals' reluctance to continue the task and incomplete questionnaires.

Demographic information, including gender, age group, educational level, and years of work experience, were collected using a questionnaire. The data collection tool in this study consisted of the standard questionnaire of organizational culture with 12 items (23). Additionally, the Hoy's Organizational Health Inventory (OHI) was used with 27 items at the institutional level with institutional unity dimensions (5 items) and manager's influence (3 items), administrative level with the dimensions of observance (3 items), construction (3 items), and resource support (2 items), and technical level with the components in the dimensions of scientific emphasis (5 items) and morale (6 items) (14).

The validity of both questionnaires was confirmed by experts, and the Cronbach's alpha coefficients of the organizational culture questionnaire and OHI were calculated to be 0.93 (23) and 0.90 (14), respectively. Both questionnaires were scored according to a 5-point Likert scale (i.e., Very low=1; Low=2; Medium=3; High=4; Very high=5) and distributed in person among the target population. One-sample t-test was used to analyze the data related to determining the health status of the organization in the hospitals under study. Additionally, the relationship between the two variables of organizational culture and organizational health was determined using Pearson's correlation coefficient. Furthermore, the data were analyzed using SPSS software (version 25). The accepted error ratio in this study was considered 0.05.

Results

The descriptive findings of the current study showed that 69% (n=654) and 31% (n=292) of the subjects were female and male, respectively. The obtained results showed that 37% (n=349) of the respondents were within the age range of 40-49 years. Furthermore, other participants in the order of frequency distribution were within the age range of 30-39 years (36%; n=343), higher than 50 years (14%; n=129), and under 30 years (13%; n=125). Approximately, 61.7% (n=584), 25.8% (n=244), 7.2% (n=59), and 6.3% (n=55) of the respondents had a bachelor's degree, master's degree, specialized doctoral degree, and professional doctoral degree, respectively. In addition, 23% (n=223), 22% (n=206), 17% (n=163), 15% (n=140), 13% (n=119), and 10% (n=95) of the participants had 10-14, 15-19, 20-24, 5-9, 25 and higher, and under 5 years of work experience, respectively.

The obtained results of the current study demonstrated that the differences in the variables of age, years of work experience, and educational level between the two groups of male and female subjects were not statistically significant (P>0.05). After calculating the study participants' (n=946) scores of the organizational culture and organizational health questionnaires, to specify the status of organizational health and its dimensions from the viewpoint of service providers (i.e., employees), one-sample t-test was used in teaching hospitals. Pearson's correlation coefficient was also utilized in order to

Table 2) Current status of organizational health variable in teaching hospitals based on one-sample t-test

Variable	Fixed value of test: 3					Status
	Mean	Standard deviation	T statistics	Degree of freedom	Probable p-value	
Organizational health	3.32	0.69	147.01	945	0.0001	Higher than medium
Institutional level	3.42	0.72	145.17	945	0.0001	Higher than medium
Administrative level	3.29	0.70	144.60	945	0.0001	Higher than medium
Technical level	3.25	0.69	143.19	945	0.0001	Higher than medium

Table 3) Results of Pearson's correlation coefficient regarding correlation between organizational culture and organizational health and its dimensions

Variable	Organizational health at institutional level	Organizational health at administrative level	Organizational health at technical level	Organizational health in general	Significance level
Organizational culture	0.92	0.92	0.93	0.94	<0.001

determine the relationship between the two components of organizational culture and organizational health.

In Table 2, it is observed that the calculated mean of the organizational health variable is equal to 3.32. Furthermore, the dimensions of organizational health at the three levels of institutional, administrative, and technical are equal to 3.42, 3.29, and 3.25, respectively, which are higher than the theoretical mean of 3. This finding indicated the appropriateness of organizational health in the teaching hospitals. Considering a p-value of lower than 0.05 in Table 2 and calculated mean value of higher than the theoretical value of 3, with a 95% confidence interval it is declared that organizational health in the district 1 teaching hospitals was at the desired level according to the employees and service providers (average score of higher than 3). The minimum, maximum, and average scores of the questionnaire items are regarded as 1, 5, and 3, respectively.

The relationship between the two components of organizational culture and organizational health and its dimensions was analyzed by Pearson's correlation coefficient. The obtained results showed that there was a positive and significant relationship between the variable of organizational culture and organizational health and its dimensions (i.e., institutional, administrative, and technical levels) at a 95% confidence interval. The aforementioned results are shown in Table 3.

Discussion

The present study was conducted to determine the relationship between organizational culture with organizational health and its dimensions (i.e., institutional, administrative, and technical levels). According to the data analysis and scores obtained from questionnaires distributed in the population under study, it can be concluded that the health status of the organizations and its three dimensions were in a relatively good status from the perspective of the employees of district 1 teaching hospitals under study. This finding is somewhat consistent with the results of a study carried out by Nasiri et al. (24); however, it contradicts the findings of a study conducted by Khalilian and Ekrami (25).

The reason for the above-mentioned difference can be explained with regard to the type of the organizations under study or time of performing the study. The presence of high organizational health in the above-mentioned studies can be due to the fact that the dimensions of organizational health have a high score. Therefore, hospitals on the basis that the improvement of which component is possible for them and which one has a lower cost, try to improve the components.

In addition, according to Pearson's correlation coefficients, the findings of the present study showed a positive and significant correlation between organizational culture and all the components of organizational health (i.e., institutional, administrative, and technical levels) in the organizations under study. The highest significance is related to the institutional level that is the ability to adapt to the environment and comply with methods that maintain health and successfully compromise with destructive external forces.

In this regard, the institutional unity relationship refers to the hospital staff's ability to adapt to its environment in a way that maintains the unity, coherence, and integrity of its health and treatment programs. The employees are protected from the pressures and unreasonable demands of patients, and the hospital is not fragile against the pressures. Since most of the employees of the hospitals under study were educated and work in the teaching universities of medical universities, this issue is justifiable.

The above-mentioned results are consistent with the findings of studies carried out by Dodek, Yilmaz and Ergun, Meyer, Patricia on the relationship between transformationalism leadership and constructive organizational culture, and Maehr on school culture, motivation, and success (26-30). The results of a study conducted by Zangal showed that there was no significant difference between public and nonprofit schools in middle and high educational courses in terms of organizational health at the institutional level, which is contrary to the findings of the present study (31).

Among the characteristics of a strong organizational culture is coherence in the organization coordinating the activities of individuals, putting them in line with the goals, and managing members fairly, justly, and equally with similar reward and punishment systems and strategies. It causes a sense of trust, freedom, mutual responsibility among colleagues, transparency, and order in the goals within an organization. Therefore, it can be stated that participation in decision-making and feeling of performing effective tasks have a positive effect on organizational health. Moreover, discrimination, stressful working condition, and destructive organizational communication practices can have a negative effect on the health of an organization.

Organizational culture as a key factor in the success and failure of organizations with the effects on the integrity of organizations can make hospitals move toward being healthy or unhealthy. The results of the studies performed by Hansson and Silverthorne are in line with the findings of the present study (32, 33). The importance of conducting this study was that today all the studied organizations require review and change to move toward becoming healthy by relying on organizational culture leading to progress and keeping pace with the changes and developments of the competitive environment to achieve their great goals from this perspective.

Organizational culture helps an organization to survive despite external environment changes and continue its activities. Internally, organizational culture leads to normative occupational training for employees. In addition, organizational culture has a significant role in the performance of health and treatment and quality of their services. Coherent and good organizational culture leads to the development of organizational creativity, teamwork spirit

improvement among employees, promotion of the quality of health and treatment services, and high satisfaction of patients (34). In contrast, an organizational culture emphasizing formal structures, many rules and regulations, and formal organizational relationship lines will lead to low productivity of the organization (35).

Various studies conducted by Sun, Kazlauskaite et al., and Taktaz et al. demonstrated the importance of organizational health in the efficiency of organization and achievement of its goals. In addition to organizational culture, organizational health is associated with many variables, such as empowerment and organizational commitment. Since the aforementioned variables are improved and strengthened by transcendent organizational culture, it can be said that the results of the aforementioned studies are in line with the findings of the present study (36-38).

Conclusion

The results of the current showed a positive and significant correlation between organizational culture and all the components of organizational health (i.e., institutional, administrative, and technical levels) in the organizations under study. Therefore, according to the research findings, some suggestions have been put forward to strengthen organizational culture and organizational health. In this study, there was a significant relationship between organizational culture and organizational health, and the highest score was obtained at the institutional level of organizational health; therefore, trying to make the organizations healthy through developing institutional unity by some measures (e.g., supporting employees in dealing with environmental problems and appreciating creative ideas) and strengthening morale with some measures (e.g., creating an intimate climate with joint efforts and respect and avoiding discrimination) can have an effective role in increasing the organizational health of hospitals.

Footnotes

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Conflict of Interest

The authors declare that there is no conflict of interest.

Ethical Approval

The study protocol was approved by the Ethical Committee of Sari Branch, Islamic Azad University (IR.IAU.CHALUS.REC. 1397.3).

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