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Investigating Organizational Culture and Employee Engagement in a Saudi Arabian Medical Center: A Study on the Extent and Strength of an Organizational Culture

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ABSTRACT

This research examines the significance of organizational culture (OC) among the staff of medical centers which are at the forefront of healthcare deliveries. It illustrates the extent to which there is a prevalence of understandable culture among the staff and demonstrates the strength of whether the subculture mirrors the dominant culture among medical and non-medical staff. To perform this analysis the sample categorized into two groups to know the strengths of association and difference between the responses of each group. It found that there is a hierarchical culture that mirrors the dominant culture the of center whereas there is no subculture which makes the employees less innovative due to their work nature. The study suggests that medical centers need to approach employee engagement in making decisions about the cultures or subcultures in an organization which will affect the employee's productivity positively.

KEYWORDS

Workplace, Health Behavior Organization Behavior, Organization Culture

INTRODUCTION

In the international health care sector, the organizational culture (OC) and environments of hospitals have become essential to patient safety. In this context, "culture" refers to the behavioral patterns governing patients' treatment, experience, and satisfaction. Each health care organization has a definite and different culture, which can be found in its actions and beliefs. In past years, OC has become a prime topic of discussion for researchers because it provides structure as well as an exclusive understanding of the various facets of an organization, such as empowerment (Gunawan & Aunguroch, 2017). The crucial role of culture in an organization can improve the adaptability of its members to innovate. Moreover, productive and definite cultural features provide an appropriate means by which to resolve problems with creativity and innovation (Wang et al., 2010).

An organization's culture comprises various aspects, including intimate contact, style of leadership, professional development, employee satisfaction, reward system, and organizational

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performance. If any of these are compromised, the organization's productivity and profit can be negatively affected (Fowler, 2018).

In this research, I studied the culture of a Saudi Arabia medical center that was established in 2006 and has been growing since. My primary goal was to determine the prevalence of a universally dominant culture among the medical center's staff. I wanted to articulate the influence of an understandable culture—one in which all members of staff share and uphold the same values—on the center's performance outcomes. I also wanted to determine whether there are any differences in rules and regulations among the employees, because of the nature of their work, that make them less innovative or productive. The medical center I studied bases its culture on patients' satisfaction and on giving them the proper treatment and environment rather than focusing on profit. One can glean a medical center's cultural norms from the health workers' optimism and whether there is a friendly atmosphere. The implications of the atmosphere for the personnel are apparent in their interactions with patients and one another. The culture of a health care system is the result of the workers' social goals, understandings, and actions (Dewi, 2018). Understanding the patients' cultural background may help health care employees provide better treatment.

Numerous studies have highlighted the productive consequences of a shared cultural understanding. A lack of such an understanding causes employees to squander a lot of time trying to figure out what to do in certain situations (Kane-Urrabazo, 2006). An organization's culture may encourage or discourage employees from sharing their insights and expertise (Szczepańska-Woszczyna, 2014). The basis of this study is the importance of OC and its strong correlation with employee productivity. However, further research is required to understand more specifically how culture affects the performance of employees and the whole organization.

BACKGROUND

An organization's cultural function promotes its overall function, and its competence fosters its growth. In this section, I examine the prior research on the strength of OC inside a medical center and explain the theoretical framework used in this study.

OC is defined as the shared values and beliefs that govern behavior in a particular organization. Oyseiko and Buchan (2012) focused on how a medical center's innovation, quality, safety, and job satisfaction could all have been improved by implementing cultural transformation and aligning corporate cultures with one another. Put more specifically, OC is a concept that exists at the organizational level and comprises the norms, values, ideas, and beliefs that all of its members share. Chalmers and Brannan (2023) described OC as the shared viewpoints, presumptions, and norms of the members that are unique to a particular corporation. Ertosun and Adiguzel (2018) stated that an organization's culture can help employees deal with challenges and offer them a sense of purpose and unity. An organization's culture may encourage or discourage employees from sharing their insights. It encompasses the mental community that is the core of the whole organizing process and underlies tasks assigned by the organization.

Szczepańska-Woszczyna (2014) investigated internal factors that influence innovation activity in a group of surveyed companies. The survey she used was based on a nonrandom sample. She evaluated OC using a validated questionnaire, the Organizational Culture Assessment Instrument (Pilav & Jatić, 2017). The study focused on the association between an organization's culture and patient satisfaction in health care facilities located in the Federation of Bosnia and Herzegovina. A cross-sectional analysis was conducted in two municipal primary health care centers there.

In addition, the total patient satisfaction at the medical facility was statistically significant according to a *t* test. The results indicated that assessing OC in the health sector is essential to raising the caliber of health care by setting standards. These findings could be used to identify OC and serve as a starting point for future OC reforms. Helfrich et al. (2007) evaluated OC in the health care industry. They proposed a procedure that has been broadly applied in the study of health

services to evaluate the culture of an organization as a predictor of team functioning, the adoption of quality-improvement measures, and the satisfaction of employees and patients as well as others; this is named the *Competing Values Framework*. Both preliminary and confirmatory feature analyses have been used to investigate the underlying structure of data gained from instruments that are based on the Competing Values Framework.

Observations also have been made using cross-sectional survey data. The survey has 14 questions that were modified from a well-known Competing Values Framework test that assesses OC with four subscales: Hierarchical, Entrepreneurial, Team, and Rational. The findings demonstrated that the subscales' internal consistency ranged from moderate to strong (.68–.85). Cronbach's alpha was also roughly calculated to evaluate the internal dependability of items, including the scale's length and the average correlation of its items.

In the present research, I expand the current body of knowledge by analyzing the statistical performance of nominal data. I used graphical methods (histograms and pie charts) and hypothesis testing in statistical analysis to compare observed and expected results. Average interitem correlations, chi-squares, and independent-samples tests were used.

METHOD

I conducted this study in accordance with the standards of the ethics review committee at Weqayah Medical Group (Ethical Approval No. 233/2021). All procedures in studies involving human participants follow the Weqayah Medical Group's ethical standards and conform with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all participants.

Ethical Consideration

This study did not involve human participants, animal experiments, or data that required ethical approval from an ethics committee. All analyzed data were de-identified and are publicly available, ensuring compliance with ethical standards.

Informed Consent

In compliance with the ethical standards established by the Weqayah Medical Group, informed consent was obtained from all individual participants involved in this study. The consent process was conducted per the Weqayah Medical Group's guidelines, ensuring that all participants were fully informed about the study's purpose, procedures, potential risks, and benefits before they took part. Written informed consent documenting their voluntary agreement to take part in the study was secured from each participant. This process protects the participants' confidentiality and autonomy and adheres to the principles outlined in the 1964 Helsinki Declaration.

Data Set

The data set in this study is based on 102 randomly selected participants from a medical center in Saudi Arabia. It was equally divided into two groups, medical staff and nonmedical staff, for the analysis.

The formula in Equation 1 was used to calculate the size of the sample:

$$\text{Sample Size} = \frac{\frac{z^2 \times p(1-p)}{e^2}}{1 + \frac{z^2 \times p(1-p)}{e^2 \times N}} \quad (1)$$

where N is the population size, e is the margin of error, and z is the z score.

A confidence level of 90% and an error margin of 10% were used and, on the basis of Equation 1, the sample size was 42.

Research Design

A survey was used to gather information for this research. By dividing the research sample into medical and nonmedical staff it was possible to study the existence of a subculture within the dominant culture and learn whether an OC exists in the medical center and how strongly the research sample correlates with its characteristics. The survey is provided in the Appendix.

Specific cultural factors were used as the foundation for the hypothesis regarding how prevalent culture is at the medical facility. Because the scope indications could lead to surprising results, I developed my hypotheses on the basis of the extent. The OC indicators cover a subset of the potential indicators of their prevalence at the medical center. I formulated the following hypotheses:

Hypothesis 1: There is a dominant (well-known) OC among the medical center employees.

Hypothesis 2: There is a subculture oriented toward not having a tendency to creatively solve problems and take risks on the part of the medical staff because of the nature of their work.

Hypothesis 3: There is a significance difference between the medical staff's OC and nonmedical staff's OC.

To aid in the research, I created the following research questions to ask the medical and nonmedical employees:

1. Is it easy to know the situation that requires communication with the direct supervisor or manager?
2. Is there cooperation between employees within the center?
3. Does the center apply the regulations and procedures to all employees fairly?
4. Does the management appreciate efforts made by the employees?
5. Is it clear what tasks the medical center requires of the employees?
6. Is it acceptable for the employee to innovate and solve problems independently?
7. Is the employee familiar with the details of the work of the various departments of the center in general?
8. Is it essential to perform the required tasks at work by any means?
9. Does management involve employees in making some decisions?
10. Does the employee perform their work with the participation of other people?
11. Is there no aggressive attitude between employees or the management towards the employees?
12. Must the center expand and grow?
13. Are there informal rituals in different events in the center, for example, when a newly hired employee joins the center, or an employee leaves the center for good?
14. Are there some terminologies you do not use outside the center?
15. Is it easy to know the center through the pictures only, such as the decoration, type, and style of arranging the furniture?
16. Is the center's policy rewarding more than punishment?
17. Does the administration abide by the laws of the center?
18. Are the consequences of the center's code of ethics violation known?
19. Do employees feel anxious or afraid while working inside the center?
20. Do the employees see the result of their work and feel satisfied?

Data Analysis

To determine whether there is a connection between the research's point of view and the study sample, I used reliability, graphical, and statistical–analytical approaches to examine the data and confirm or refute the hypotheses. Graphical analytics and statistical methods were used to explore and summarize the data so as to discover the underlying meaning in massive data sets. A core premise of these approaches is to describe everything in detail. Because of the nature of the data and the study population, a specific method of data collection, analysis, and information extraction was necessary to demonstrate how closely the study sample is related to the research hypotheses. I used graphical analysis to evaluate the data and generate insightful analyses and results. This analysis yielded a detailed explanation of cultural sensitivity in the health care context. My ability to compare and assess distinct events was significantly facilitated by the use of reliability and statistical analytical tools in this research. Reliability tests include Cronbach's alpha and average interitem correlations, and chi-squares and independent-sample *t* tests were the primary statistical methods used in this study. SPSS software was used for all three analyses. As with its graphical user interface, SPSS makes it simple to compile reliability tests, parametric and nonparametric analyses, and graphical representations of results.

Graphical Method

In this article, tabular presentations of descriptive statistics are supported by graphical representations. In general, graphs are more effective than tables for spotting data trends, although tables are better presenters of elevated numerical details of vast volumes of data. In this study, I assessed categories using histograms, which show discrepancies between groups of data or other discrete information. Histograms can aid in the comprehension of how various data are related. Each bar indicates a summary value for one discrete level, and longer/higher bars denote high satisfaction.

Cronbach's alpha is used to evaluate how consistently one set of objects is related to one another. It is used as an indicator of scale reliability. If the alpha value is high, the measure may not be one-dimensional. Cronbach's alpha is a reliability coefficient instead of a statistical test. It can be mathematically expressed in Equation 2:

$$\alpha = \frac{N\bar{c}}{\bar{v} + (N - 1)\bar{c}} \quad (2)$$

where *N* is the number of items, \bar{c} is the average covariance between pairs of items, and \bar{v} is the average variance.

Average Interitem Correlation

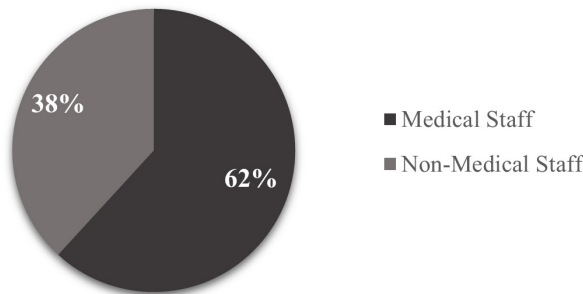
The reliability of a test's or questionnaire's internal consistency can be examined using the average interitem correlation, which evaluates whether specific questions produce accurate, dependable results. It is determined by calculating the correlation between each pair of items and then calculating the average of those correlations. An appropriate consistency range is between .15 and .50. When the interitem correlation is >.50, the items are redundant because of their similarity.

Chi-Square Test

The chi-square test determines whether the observed value and the predicted value differ from each other. Using the provided observed frequency and the expected frequency, the chi-square function illustrates—or, in a sense, evaluates—the link between two categorical variables. The chi-square equation is given in Equation 3:

$$\chi^2 = \frac{\sum(O_i - E_i)^2}{E_i} \quad (3)$$

Figure 1. Nature of work



where O_i is the data set's actual value and E_i is its forecasted value.

Independent-Samples t -Test

An independent-samples t test compares the means of two independent groups to determine whether there is statistical support for the claim that the linked population means and variances are statistically substantially different. In contrast, Levene's test compares the variances between the groups. It is commonly referred to as a t test. The following assumptions are supported by an independent-samples t test:

Hypothesis 0: The means for the two populations are equivalent.

Hypothesis 1: The means for the two populations are not equivalent.

The following assumptions were supported by an independent-samples Levene's test:

Hypothesis 0: Variance among the group is equal.

Hypothesis 1: Variance among the group is not equal.

The null hypothesis (Hypothesis 0) is discarded if the p value is less than the significance level, which is typically .05. Data from the sample can be used to infer whether there is a significant difference between the two means or between the variance among the groups.

RESULTS

Graphical Method

In this article, I use histograms to illustrate the existing patterns in the data. The histogram is a widely used graphical tool that helps present the results of a Likert-scale survey. Graphs illustrating the survey results are provided in this section.

The total number of responses collected in this research was 58. I split these into two categories: medical staff and nonmedical staff. Of the responses analyzed, 62% were received from medical staff, and 38% were from nonmedical staff. Eighty percent of the responses indicated that the hospital environment is incredibly supportive and cooperative, and 76% agreed that employees can discuss their problems with supervisors without fear. Moreover, the rules and regulations were reported to be both fair and coherent. All the employees directed their tasks and were strongly required to complete them by a given time. Sixty-six percent of respondents agreed that employees are also familiar with the work of another department and were encouraged to perform their work with the help of other people. In comparison, 18% of the responses reported inconclusive replies.

Figure 2. It is easy to know the situation that requires communication with the direct supervisor or manager

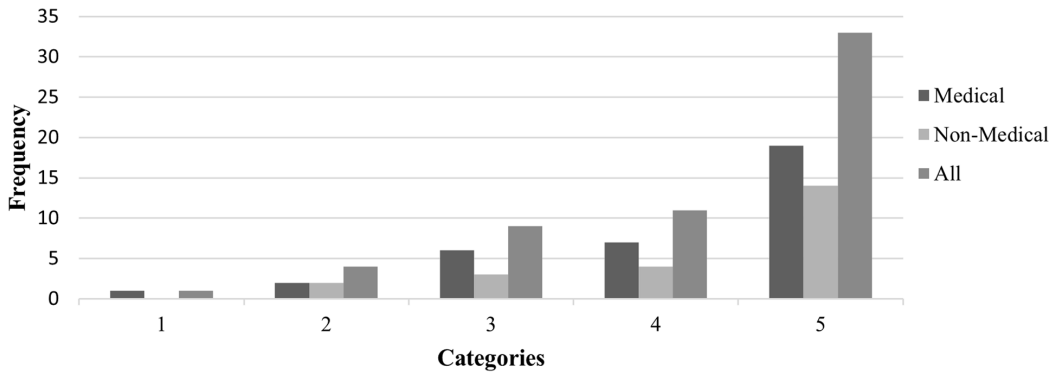
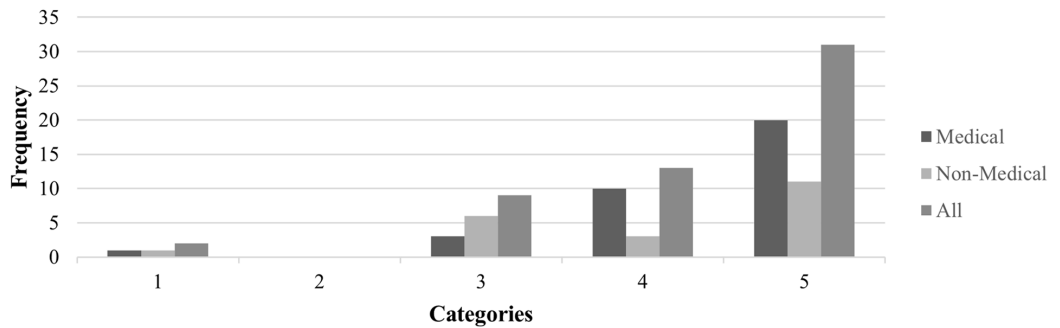


Figure 3. There is cooperation between employees within the center



Eighty-two percent of respondents said they observed no hostility between employers and employees/management. Around 40% of the responses indicated that there are informal rituals in an organization, including different events and terms one cannot use outside the center. In comparison, 35% showed inconclusive behavior, and 25% highly disagreed with this statement. The consequences of violating any rule were known to everyone in the organization. More than 83% of the staff stated that they were allowed to see their performance analysis and appreciated receiving information about related rewards. There were subcultures in the organization that made the employees less likely to innovate because of the nature of their jobs. These subcultures included events, work with the participation of other employees, and other such characteristics.

The responses did indicate that the administration and policymakers at the medical center do not engage the employees enough in making decisions, which shows a weak correlation with one of the main characteristics of the organization’s culture. Only 42% of the respondents indicated that the management allows employees to participate in decision making, but 58% disagreed and stated that the management does not involve the employees in any decision-making processes. This is consistent with the diverse results of Abass et al.’s (2018) study. Other respondents agreed that the center needs to grow and expand. There was a statistical indication that there are dominant rituals of the medical center spread among the employees. Management at the medical center has attempted to foster a unified dominant culture, resulting in the widespread adoption of a standard set of values and practices among staff.

Figure 4. The center applies the regulations and procedures to all employees fairly

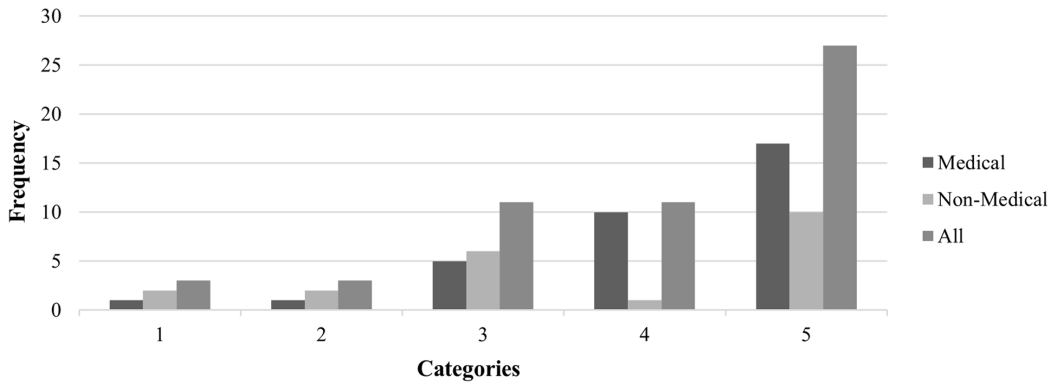


Figure 5. The efforts made are appreciated by the management

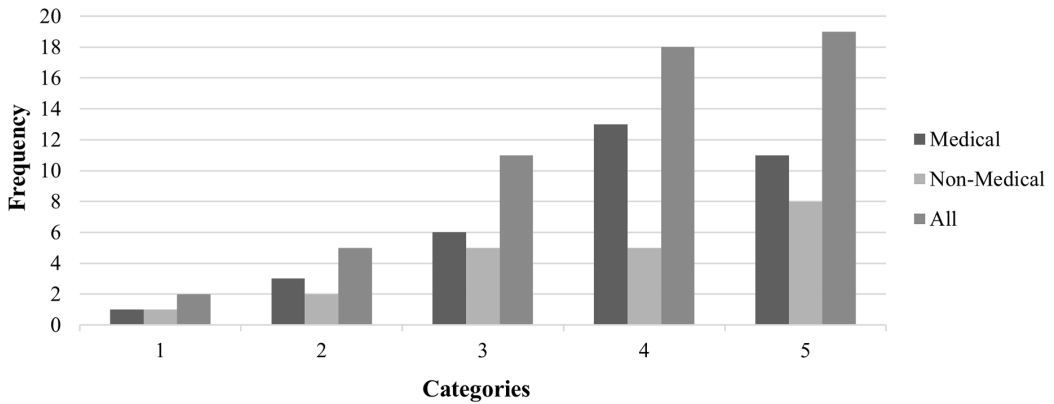


Figure 6. It is clear what tasks are required from the employee

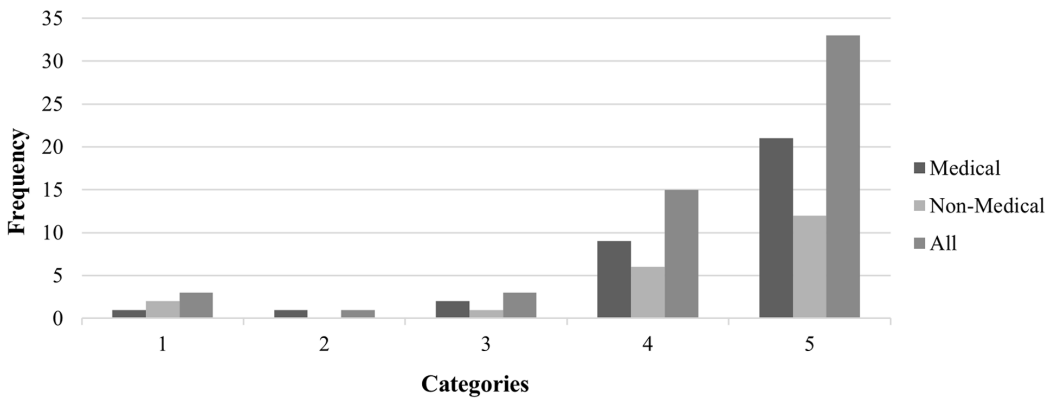


Figure 7. It is acceptable of the employee to innovate and try to solve some problems on his own

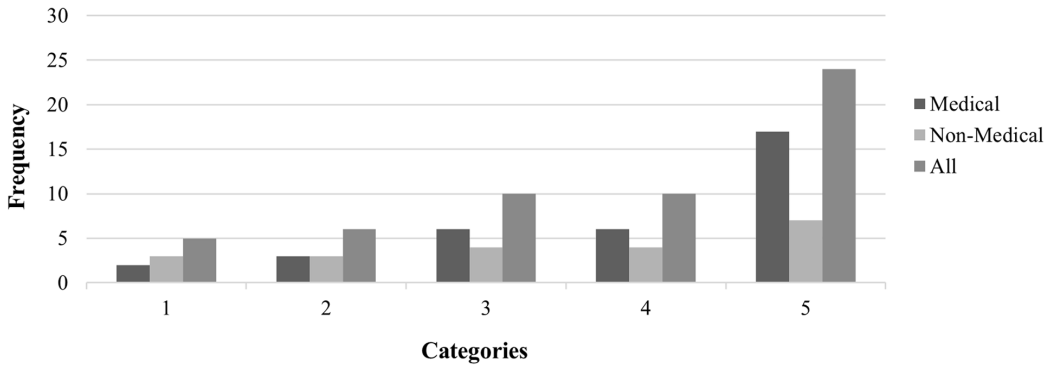


Figure 8. The employee is familiar with the details of the work of the various departments of the center in general

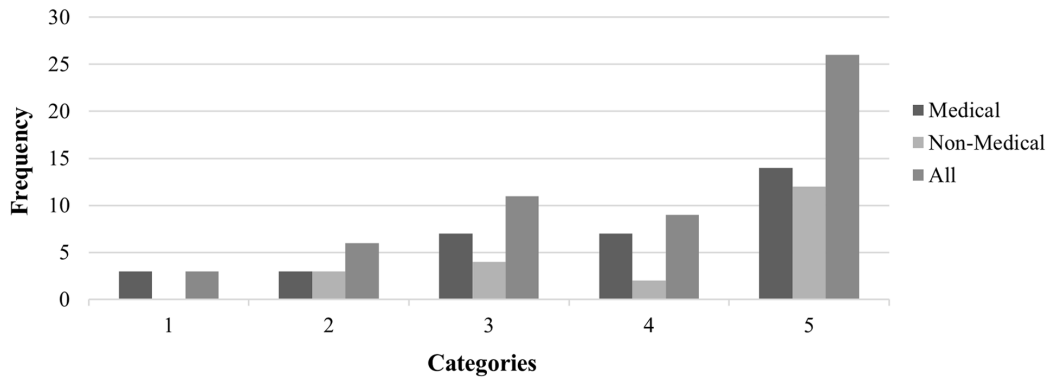
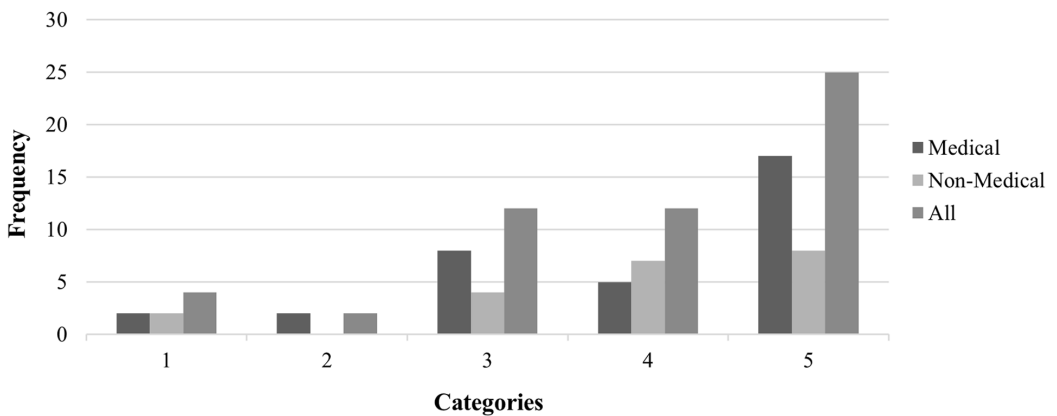


Figure 9. It is important to perform the required tasks at work by any means



Reliability Analysis

I conducted two reliability tests to check whether the questions in the survey were suitable for the analyses.

Figure 10. Management involves employees in making some decisions

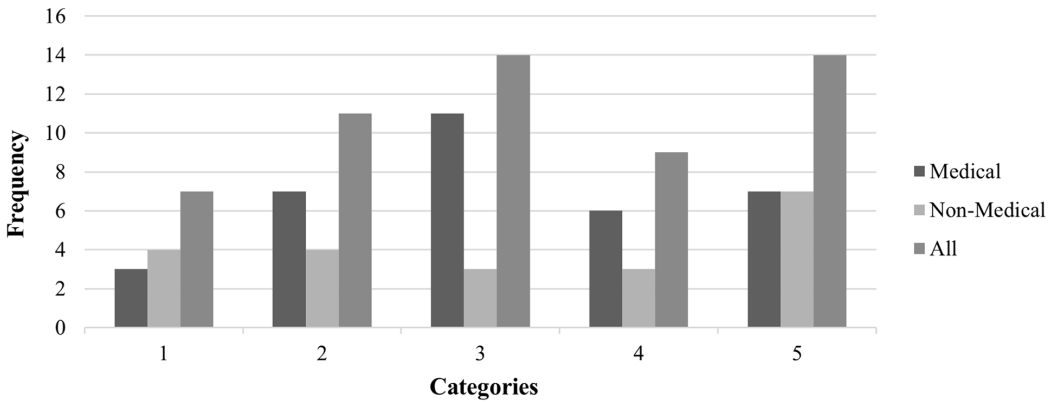


Figure 11. The employee performs his/her work with the participation with other people

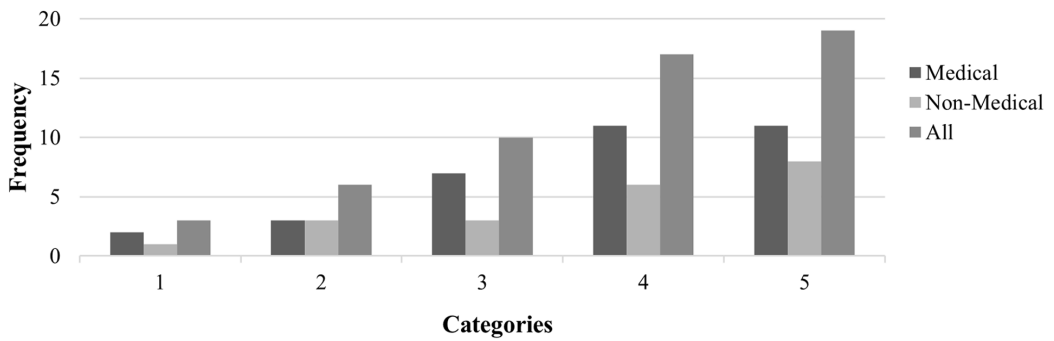
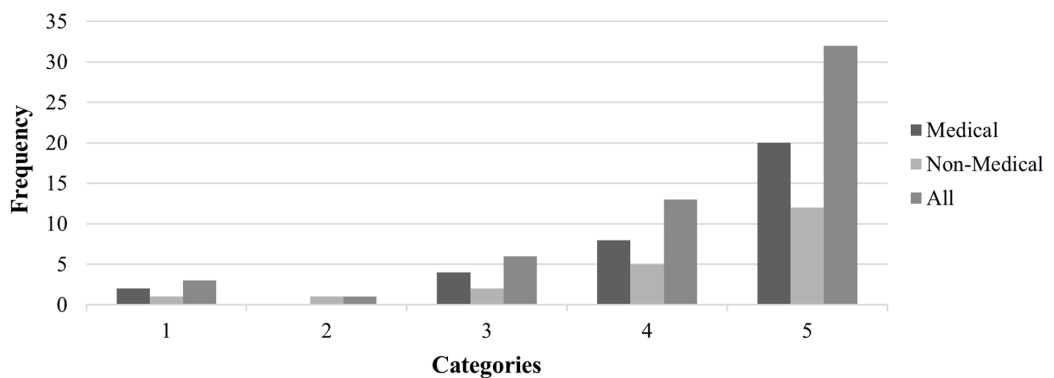


Figure 12. There is no aggressive attitude between employees or the management towards the employees



Average Interitem Correlation

The results in Tables 1 and 2 indicate that the items in the analysis are highly correlated. The average interitem correlation of the data set shown in Table 2 was .853, which shows that the individual

Figure 13. The center must expand and grow

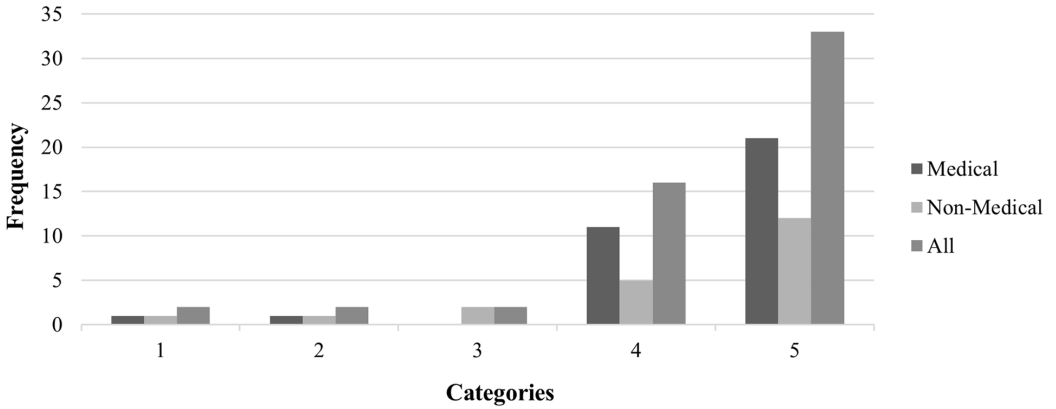


Figure 14. There are an (informal) rituals in different events takes places in the center for example when a newly hired employee join the center or an employee leaving the center for good

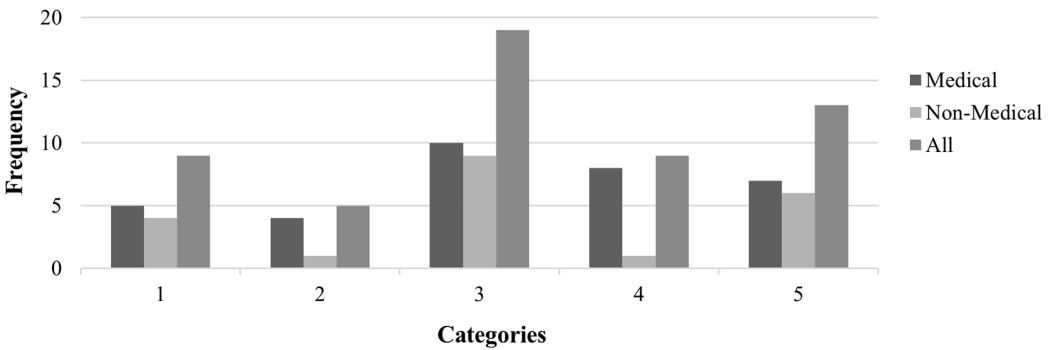
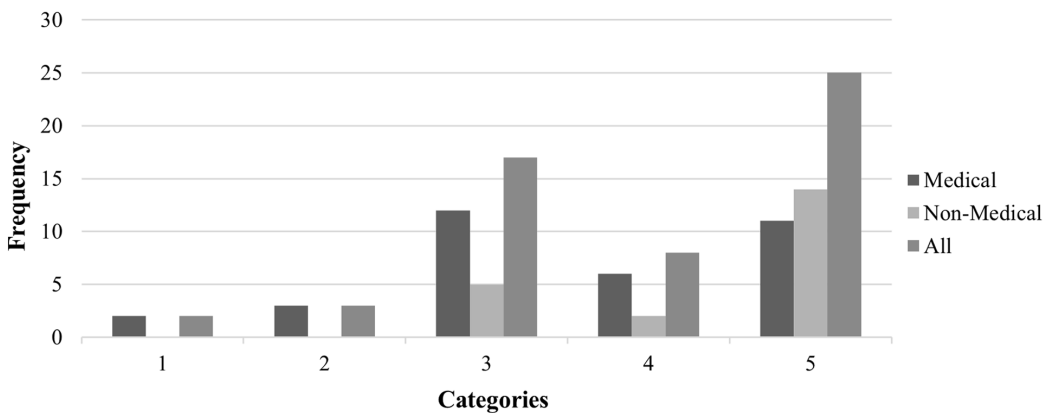


Figure 15. There are some terminologies you don't use outside the center



questions yielded consistent and appropriate results. Also, the matrix indicates that the items measure the main subject very well, as shown in Table 1.

Figure 16. It is easy to know the center through the pictures only, such as the decoration and the type and style of arranging the furniture

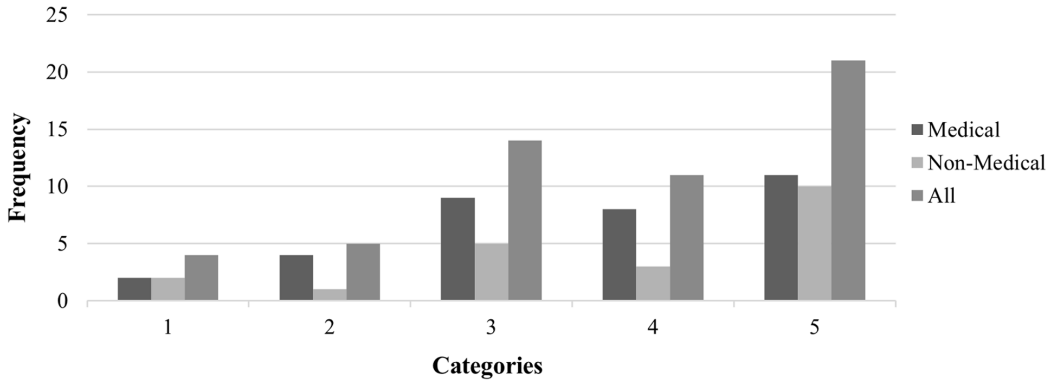


Figure 17. The center's policy is rewarding more than punishment

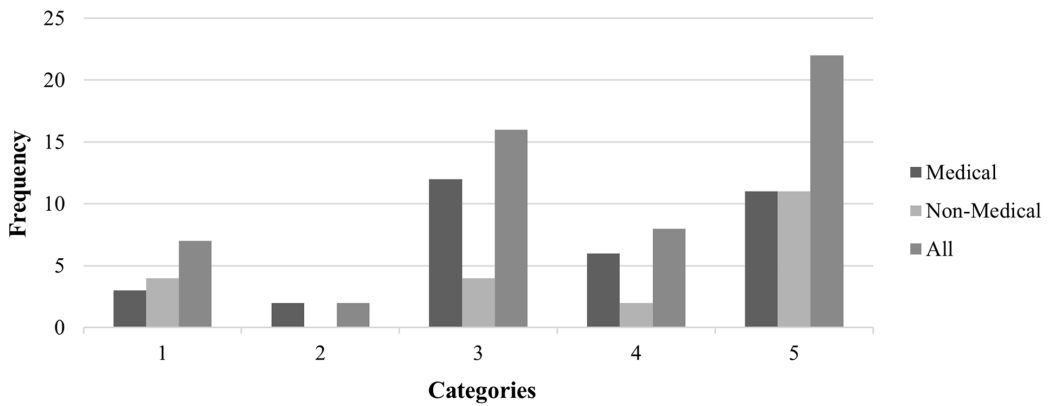


Figure 18. The administration abides by the laws of the center

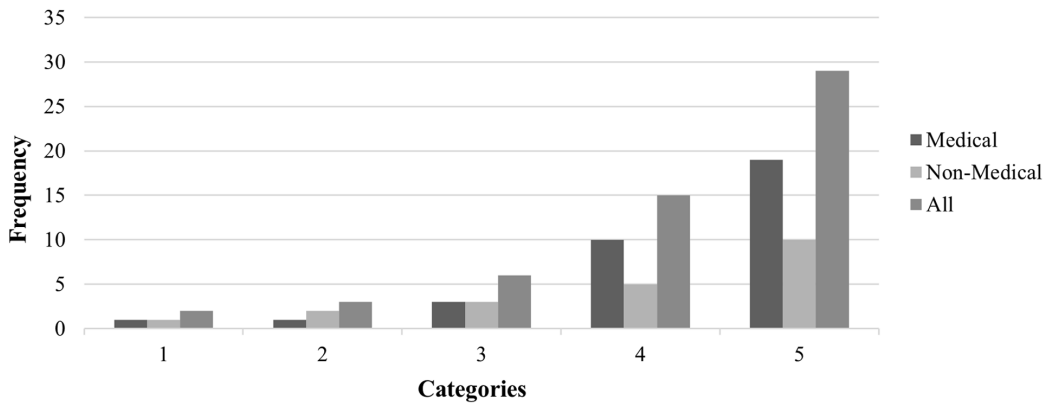


Figure 19. The center's code of ethics violation consequences are known

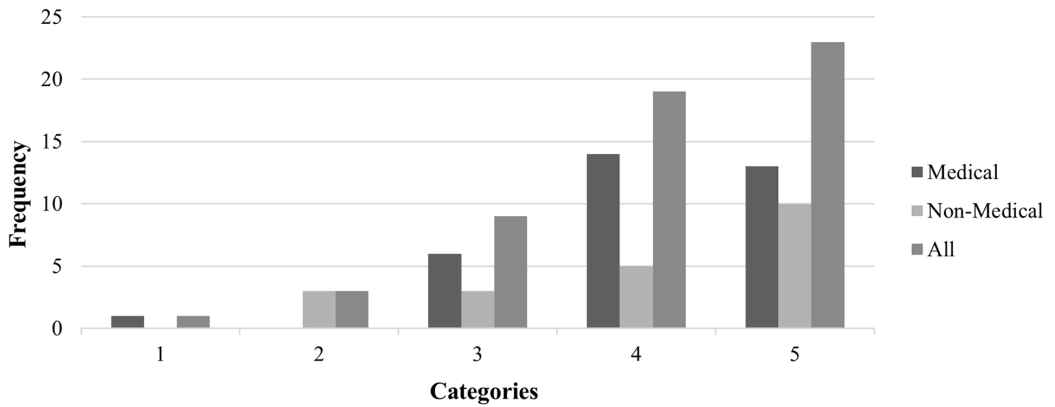


Figure 20. I do not feel anxious or afraid while working inside the center

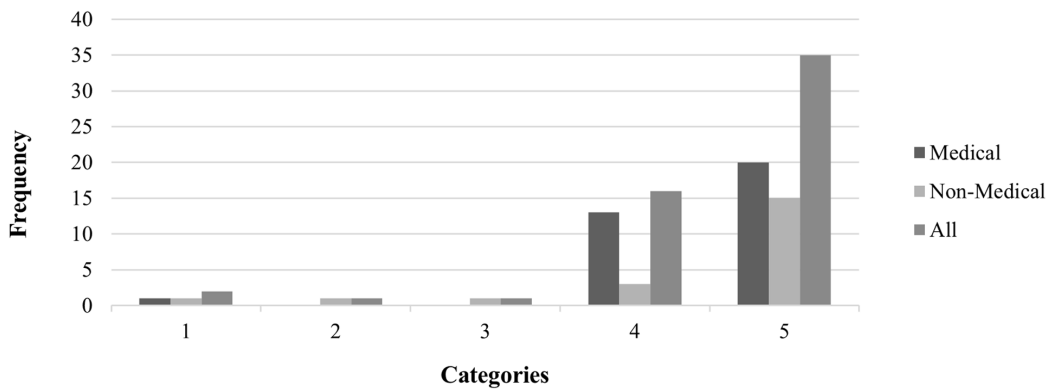


Figure 21. I see the result of my work and feel satisfied

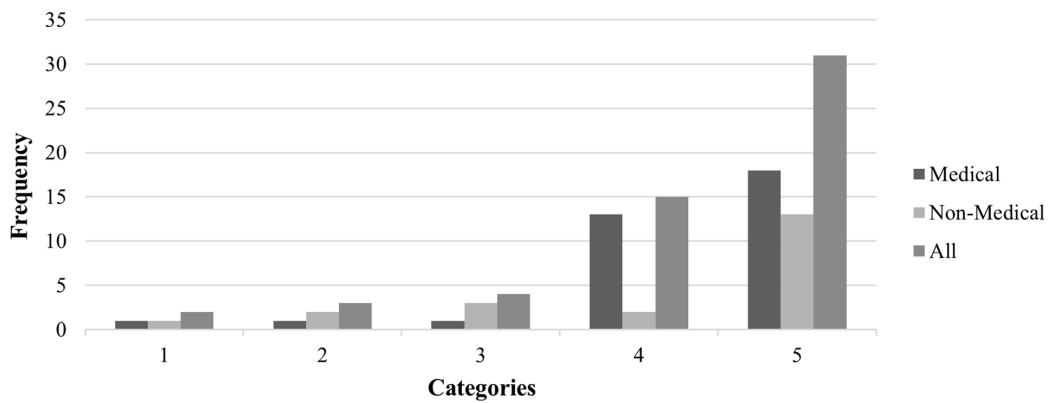


Table 1. Interitem correlation matrix

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.	—	.863	.850	.876	.915	.858	.915	.923	.789	.894	.937	.746	.810	.842	.914	.858	.906	.877	.891	.899
2.	.863	—	.916	.893	.907	.901	.846	.881	.809	.879	.912	.660	.776	.698	.857	.846	.947	.879	.880	.923
3.	.850	.916	—	.894	.889	.949	.843	.901	.869	.884	.902	.583	.844	.701	.896	.894	.946	.926	.818	.901
4.	.876	.893	.894	—	.877	.919	.905	.919	.932	.963	.883	.651	.905	.815	.942	.921	.905	.923	.810	.881
5.	.915	.907	.889	.877	—	.868	.854	.916	.765	.865	.955	.648	.759	.705	.872	.833	.928	.857	.914	.920
6.	.858	.901	.949	.919	.868	—	.884	.938	.893	.923	.888	.649	.901	.745	.896	.895	.942	.900	.786	.891
7.	.915	.846	.843	.905	.854	.884	—	.912	.885	.933	.898	.746	.873	.904	.945	.930	.867	.894	.773	.859
8.	.923	.881	.901	.919	.916	.938	.912	—	.858	.940	.922	.668	.878	.825	.921	.890	.921	.879	.846	.895
9.	.789	.809	.869	.932	.765	.893	.885	.858	—	.921	.798	.585	.940	.808	.919	.924	.835	.903	.695	.811
10.	.894	.879	.884	.963	.865	.923	.933	.940	.921	—	.907	.688	.919	.874	.948	.942	.909	.911	.802	.878
11.	.937	.912	.902	.883	.955	.888	.898	.922	.798	.907	—	.694	.806	.778	.907	.873	.940	.867	.880	.921
12.	.746	.660	.583	.651	.648	.649	.746	.668	.585	.688	.694	—	.557	.701	.662	.615	.670	.651	.594	.674
13.	.810	.776	.844	.905	.759	.901	.873	.878	.940	.919	.806	.557	—	.816	.885	.893	.830	.871	.702	.781
14.	.842	.698	.701	.815	.705	.745	.904	.825	.808	.874	.778	.701	.816	—	.886	.894	.742	.804	.679	.758
15.	.914	.857	.896	.942	.872	.896	.945	.921	.919	.948	.907	.662	.885	.886	—	.952	.907	.923	.811	.881
16.	.858	.846	.894	.921	.833	.895	.930	.890	.924	.942	.873	.615	.893	.894	.952	—	.883	.910	.774	.888
17.	.906	.947	.946	.905	.928	.942	.867	.921	.835	.909	.940	.670	.830	.742	.907	.883	—	.923	.892	.954
18.	.877	.879	.926	.923	.857	.900	.894	.879	.903	.911	.867	.651	.871	.804	.923	.910	.923	—	.850	.895
19.	.891	.880	.818	.810	.914	.786	.773	.846	.695	.802	.880	.594	.702	.679	.811	.774	.892	.850	—	.908
20.	.899	.923	.901	.881	.920	.891	.859	.895	.811	.878	.921	.674	.781	.758	.881	.888	.954	.895	.908	—

Table 2. Interitem correlation summary

M	Min	Max	Range	Max/min	Variance	No. of items
.853	.557	.963	.406	1.729	.008	20

Note. Min = minimum; Max = maximum

Table 3. Reliability statistics results

Cronbach's α	Cronbach's α based on standardized items	No. of items
.991	.991	20

Chi-square tests (Q:01)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	37.250 ^a	12	.000
Likelihood ratio	29.703	12	.003
Linear \times Linear association	14.444	1	.000

Note. Number of valid cases = 21. Asymp. sig. = xxxx.

^aThe expected count is <5 in 20 cells (100.0%). It must be at least .05.

Cronbach's Alpha

I determined the reliability of the data set by computing Cronbach's alpha, which yielded a value of .991 for 20 items, as shown in Table 3, and suggesting that the questions had high consistency and reliability, consistent with with Dewi's (2018) study. This value also indicates that individual questions were closely related and stable enough to obtain a favorable conclusion.

Chi-Square Test

Hypothesis 1: There Is a Dominant (Well-Known) Organizational Culture Among the Medical Center Employees

As mentioned earlier, to check the presence of dominant culture among the medical center employees, I split the data into two groups: medical and nonmedical staff. I then applied a chi-square test to all questions to check the association between the responses of both groups. If there is an association between the majority of the responses, then one can conclude that an organization has a dominant culture.

The hypotheses to apply this test are as follows:

Hypothesis 0: There is no association between the responses of the two groups.

Hypothesis 1: There is an association between the responses of the two groups.

The results indicated that the obtained Pearson chi-square value was <0.05, so one can conclude that there is a significant association between the responses of the two groups; this indicates the presence of a dominant culture among the employees that influences their performance, consistent with Dewi's (2018) results.

The second hypothesis in this study focused on whether there is a subculture oriented toward medical staff not having a tendency to creatively solve problems and take risks because of the nature of their work. Two questions were instrumental in evaluating this hypothesis: Question 6, "Is it acceptable for employees to innovate and solve problems independently?" and Question 8, "Is it essential to perform the required tasks at work by any means?" I divided the responses into two

Chi-square tests (Q:02)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	36.368 ^a	9	.000
Likelihood ratio	25.245	9	.003
Linear \times Linear association	14.613	1	.000

Note. Number of valid cases = 21. Asymp. sig. = xxxx.
^aThe expected count is <5 in 15 cells (93.8%). It must be at least .05.

Chi-square tests (Q:03)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	35.910 ^a	16	.003
Likelihood ratio	30.083	16	.018
Linear \times Linear association	14.434	1	.000

Note. Number of valid cases = 21. Asymp. sig. = xxxx.
^a25 cells (100.0%) have expected count <5. The minimum expected count is .05.

Chi-square tests (Q:04)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	48.109 ^a	12	.000
Likelihood ratio	35.289	12	.000
Linear \times Linear association	17.042	1	.000

Note. Number of valid cases = 21. Asymp. sig. = xxxx.
^aThe expected count is <5 in 20 cells (100.0%). It must be at least .05.

Chi-square tests (Q:05)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	39.083 ^a	12	.000
Likelihood ratio	28.821	12	.004
Linear \times Linear association	16.505	1	.000

Note. Number of valid cases = 21. Asymp. sig. = xxxx.
^aThe expected count is <5 in 19 cells (95.0%). It must be at least .05.

Chi-square tests (Q:06)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	45.083 ^a	16	.000
Likelihood ratio	42.716	16	.000
Linear \times Linear association	17.475	1	.000

Note. Number of valid cases = 21. Asymp. sig. = xxxx.
^aThe expected count is <5 in 25 cells (100.0%). It must be at least .29.

groups to determine whether any subculture existed that led to differences in the tendency to solve problems and take risks because of the nature of one’s job. I applied the chi-square test to evaluate

Chi-square tests (Q:07)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	40.500 ^a	12	.000
Likelihood ratio	34.398	12	.001
Linear \times Linear association	15.933	1	.000

Note. Number of valid cases = 21. Asymp. sig. = xxxx.
^aThe expected count is <5 in 20 cells (100.0%). It must be at least .10.

Chi-square tests (Q:08)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	46.125 ^a	12	.000
Likelihood ratio	39.492	12	.000
Linear \times Linear association	16.643	1	.000

Note. Number of valid cases = 21. Asymp. sig. = xxxx.
^aThe expected count is <5 in 20 cells (100.0%). It must be at least .19.

Chi-square tests (Q:09)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	31.227 ^a	8	.000
Likelihood ratio	32.964	8	.000
Linear \times Linear association	16.315	1	.000

Note. Number of valid cases = 21. Asymp. sig. = xxxx.
^aThe expected count is <5 in 15 cells (100.0%). It must be at least .43.

Chi-square tests (Q:10)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	40.222 ^a	12	.000
Likelihood ratio of Likelihood	38.668	12	.000
Linear \times Linear association	17.668	1	.000

Note. Number of valid cases = 21. Asymp. sig. = xxxx.
^aThe expected count is <5 in 20 cells (100.0%). It must be at least .10.

Chi-square tests (Q:11)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	37.144 ^a	12	.000
Likelihood ratio	30.462	12	.002
Linear \times Linear association	16.566	1	.000

Note. Number of valid cases = 21. Asymp. sig. = xxxx.
^aThe expected count is <5 in 20 cells (100.0%). It must be at least .10.

this hypothesis. If the responses of both groups show an association, then one can conclude that there is no subculture creating any difference between the employees of an organization.

Chi-square tests (Q:12)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	3.182 ^a	6	.786
Likelihood ratio	4.334	6	.632
Linear × Linear association	0.064	1	.801

Note. Number of valid cases = 21. Asymp. sig. = xxxx.
^aThe expected count is <5 in 10 cells (83.3%). It must be at least .05.

Chi-square tests (Q:13)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	29.867 ^a	12	.003
Likelihood ratio	31.857	12	.001
Linear × Linear association	14.943	1	.000

Note. Number of valid cases = 21. Asymp. sig. = xxxx.
^aThe expected count is <5 in 20 cells (100.0%). It must be at least .10.

Chi-square tests (Q:14)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	22.000 ^a	6	.001
Likelihood ratio	24.296	6	.000
Linear × Linear association	13.681	1	.000

Note. Number of valid cases = 21. Asymp. sig. = xxxx.
^aThe expected count is <5 in 11 cells (91.7%). It must be at least .19.

Chi-square tests (Q:15)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	39.900 ^a	12	.000
Likelihood ratio	32.765	12	.001
Linear × Linear association	15.843	1	.000

Note. Number of valid cases = 21. Asymp. sig. = xxxx.
^aThe expected count is <5 in 20 cells (100.0%). It must be at least .10.

Chi-square tests (Q:16)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	22.869 ^a	9	.006
Likelihood ratio	24.360	9	.004
Linear × Linear association	14.614	1	.000

Note. Number of valid cases = 21. Asymp. sig. = xxxx.
^aThe expected count is <5 in 15 cells (93.8%). It must be at least .19.

The hypotheses to apply to this test are as follows:

Chi-square tests (Q:17)

	Value	df	Asymp. Sig. (2-sided)
Pearson χ^2	50.493 ^a	16	.000
Likelihood ratio	33.674	16	.006
Linear \times Linear association	16.170	1	.000

Note. Number of valid cases = 21. Asymp. sig. = xxxx.

^aThe expected count is <5 in 25 cells (100.0%). It must be at least .05.

Chi-square tests (Q:18)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	21.667 ^a	6	.001
Likelihood ratio	23.652	6	.001
Linear \times Linear association	12.971	1	.000

Note. Number of valid cases = 21. Asymp. sig. = xxxx.

^aThe expected count is <5 in 11 cells (91.7%). It must be at least .14.

Chi-square tests (Q:19)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	24.769 ^a	8	.002
Likelihood ratio	13.211	8	.105
Linear \times Linear association	10.653	1	.001

Note. Number of valid cases = 21. Asymp. sig. = xxxx.

^aThe expected count is <5 in 13 cells (86.7%). It must be at least .05.

Chi-square tests (Q:20)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	45.107 ^a	16	.000
Likelihood ratio	24.991	16	.070
Linear \times Linear association	13.145	1	.000

Note. Number of valid cases = 21. Asymp. sig. = xxxx.

^aThe expected count is <5 in 24 cells (96.0%). It must be at least .05.

Hypothesis 0: There is no association between the responses of the two groups.

Hypothesis 1: There is an association between the responses of the two groups.

The results indicated that the *p* value was <.05 for the responses to both questions, which means there is statistical evidence of an association between the responses of both groups for each question. It also verifies that there is no subculture making any difference between employees because of the nature of their work.

Chi-square tests (Q:06)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	45.083 ^a	16	.000
Likelihood ratio	42.716	16	.000
Linear \times Linear association	17.475	1	.000

Note. Number of valid cases = 21. Aymp. sig. = xxxx.
^aThe expected count is <5 in 25 cells (100.0%). It must be at least .29.

Chi-square tests (Q:08)

	Value	df	Asymp. sig. (2-sided)
Pearson χ^2	46.125 ^a	12	.000
Likelihood ratio	39.492	12	.000
Linear \times Linear association	16.643	1	.000

Note. Number of valid cases = 21. Aymp. sig. = xxxx.
^aThe expected count is <5 in 20 cells (100.0%). It must be at least .19.

Independent-Samples Test

The third hypothesis in this study focused on whether there is a significant difference between the medical staff’s OC and the nonmedical staff’s OC, leading to a dominant culture and a subculture in the organization.

I used an independent-samples test (Levene’s test, to examine the data for equality of variances) to evaluate this hypothesis. If the variation in replies between medical and nonmedical staff is not significantly different for most questions, then one can conclude that there was no difference in the OC for medical and nonmedical employees.

An analysis of variance revealed that the majority of the questions showed that the variance among the responses of both groups is equal. Because the *p* value for this test was >.05 for most of the questions, Hypothesis 0 is accepted and indicates statistical proof that the variations in questionnaire replies from medical and nonmedical personnel are not statistically different. To evaluate the differences among means, I used a *t* test, which indicated that the mean responses of medical and nonmedical staff to most questions were not significantly different. The *p* value for this test was >.05 for most of the questions, so Hypothesis 0 is accepted, indicating that there is statistical evidence that the mean of the two populations is equal for the cultures evaluated by the questionnaire. (see Table 4)

This analysis yielded statistical evidence that verifies that there is no difference in OC among the medical center’s employees. This leads to any subculture within an organization because the employees’ responses did not show any notable difference, which verifies the chosen hypothesis.

DISCUSSION

Recommendations for Future Research

This research can be extended in diverse ways:

- The data can be collected from the staff and the patients to increase the amount of data and the reliability and effectiveness of the study.
- Depending on availability, a combination of primary and secondary data can be used in future analyses.

Table 4. Independent-samples test

	Levene's test for equality of variances		t test for equality of means				
	F	p	t	df	p (2-tailed)	Mean difference	SE difference
1. It is easy to know the situation that requires communication with the direct supervisor or manager.							
Equal variances assumed	0.325	.571	-0.682	53	.498	-.19328	.28340
Equal variances not assumed			-0.693	44.710	.492	-.19328	.27887
2. There is a cooperation between employees within the center.							
Equal variances assumed	2.665	.109	1.151	53	.255	.31653	.27503
Equal variances not assumed			1.087	35.041	.285	.31653	.29126
3. The center applies the regulations and procedures to all employees fairly.							
Equal variances assumed	7.387	.009	1.501	53	.139	.49160	.32761
Equal variances not assumed			1.386	32.502	.175	.49160	.35472
4. The management appreciates the efforts made.							
Equal variances assumed	1.003	.321	0.234	53	.816	.07283	.31151
Equal variances not assumed			0.227	38.456	.822	.07283	.32103
5. It is clear what tasks are required from the employee.							
Equal variances assumed	0.546	.463	0.588	53	.559	.17367	.29541
Equal variances not assumed			0.555	35.011	.582	.17367	.31293
6. It is acceptable for the employee to innovate and try to solve some problems on his own.							
Equal variances assumed	1.360	.249	1.450	53	.153	.54202	.37375
Equal variances not assumed			1.400	37.773	.170	.54202	.38721
7. The employee is familiar with the details of the work of the various departments of the center in general.							
Equal variances assumed	0.208	.650	-0.935	53	.354	-.33053	.35339
Equal variances not assumed			-0.962	46.343	.341	-.33053	.34353
8. It is important to perform the required tasks at work by any means.							
Equal variances assumed	0.496	.484	0.192	53	.848	.06583	.34265
Equal variances not assumed			0.193	43.096	.848	.06583	.34118
9. Management involves employees in making some decisions.							
Equal variances assumed	3.781	.057	-0.084	53	.933	-.03221	.38384
Equal variances not assumed			-0.079	35.291	.937	-.03221	.40564
10. The employee performs his/her work with the participation of other people.							
Equal variances assumed	0.114	.737	-0.134	53	.894	-.04482	.33531
Equal variances not assumed			-0.132	40.683	.896	-.04482	.33982
11. There is no aggressive attitude between employees or the management towards the employees.							
Equal variances assumed	0.044	.835	0.182	53	.856	.05602	.30705
Equal variances not assumed			0.181	41.087	.858	.05602	.31026
12. The center must expand and grow.							
Equal variances assumed	2.560	.116	-1.305	53	.197	-.29132	.22321
Equal variances not assumed			-1.418	52.109	.162	-.29132	.20539

continued on following page

Table 4. Continued

	Levene's test for equality of variances		t test for equality of means				
	F	p	t	df	p (2-tailed)	Mean difference	SE difference
13. There are (informal) rituals in different events in the center, for example, when a newly hired employee joins the center or an employee leaves the center for good.							
Equal variances assumed	0.013	.911	0.118	53	.907	.04482	.38001
Equal variances not assumed			0.116	39.933	.908	.04482	.38728
14. There are terminologies you do not use outside the center.							
Equal variances assumed	3.293	.075	-2.676	53	.010	-.81092	.30301
Equal variances not assumed			-2.888	51.600	.006	-.81092	.28082
15. It is easy to know the center through the pictures only, such as the decoration and the type and style of arranging the furniture.							
Equal variances assumed	0.234	.631	-0.593	53	.556	-.21008	.35423
Equal variances not assumed			-0.579	39.373	.566	-.21008	.36253
16. The center's policy is rewarding more than punishment.							
Equal variances assumed	2.121	.151	-0.451	53	.654	-.17367	.38511
Equal variances not assumed			-0.427	35.472	.672	-.17367	.40639
17. The administration abides by the laws of the center.							
Equal variances assumed	1.155	.287	1.083	53	.284	.32353	.29883
Equal variances not assumed			1.026	35.463	.312	.32353	.31536
18. The center's code of ethics violation consequences is known.							
Equal variances assumed	1.882	.176	0.254	53	.801	.07003	.27618
Equal variances not assumed			0.242	36.190	.810	.07003	.28974
19. I do not feel anxious or afraid while working inside the center.							
Equal variances assumed	1.800	.185	0.277	53	.783	.07143	.25756
Equal variances not assumed			0.256	32.251	.800	.07143	.27953
20. I see the result of my work and feel satisfied.							
Equal variances assumed	4.696	.035	0.709	53	.481	.21008	.29613
Equal variances not assumed			0.657	32.777	.516	.21008	.31984

- Cross-sectional analyses can be performed to check the extent and strength of the OC in a particular center.
- The researcher can analyze the data to identify the factors that enhance innovative work behavior across cultures.
- Along with qualitative data, quantitative data can obtain helpful results.
- Reasons for the lack of employee involvement in decision-making processes can also be incorporated into the study.

Limitations

This study has some limitations:

- The data for this study were collected from the medical center staff only. Responses from patients were not collected.

- The analysis used only qualitative data. No quantitative or secondary data were used.

CONCLUSION

An organization's culture involves how administrative staff and employees act; human resources are an essential source, and staff performance is highly affected by the culture of a particular organization. In this study, I set out to uncover the extent of the ideal culture of a medical facility in Saudi Arabia. I found a dominant OC among the medical center employees; however, the results revealed a medium signal of weakness in employees' correlation with culture's characteristics, specifically in innovation and risk-taking. Organizations that have a strong culture have much more active and productive personnel. This research also revealed, conversely, that there is subculture oriented toward medical staff not tending to creatively solve problems or take risks because of the nature of their work. Therefore, the medical center's subculture mirrors the dominant culture among the medical and nonmedical staff.

The findings of this study can be summarized thus: A significant correlation exists between employees' responses regarding the organization's culture and their innovative work behavior. Also, a major problem is the lack of employee engagement in decision-making processes. Therefore, this study provides a clear image of the OC in a medical center and the problems that make employees less productive. It also suggests some key points that can be incorporated into the organization's dominant culture to make it more modernized, profitable, and successful. These factors include employee engagement in any policy and decision-making process related to an organization's proposed culture.

The administration at an organization must try to reinforce formal and informal rituals so that the employees, especially new ones, can spread the medical center's culture among themselves, and foster a creative environment in which they take responsibility for solving problems creatively. These steps will strengthen the employees' association with the organization's culture, positively affecting productivity and improving staff morale. Future research should be extended to include the cross-sectional analysis of data from different centers and consider both quantitative and qualitative data.

CONFLICTS OF INTEREST

We wish to confirm that there are no known conflicts of interest associated with this publication and there has been no significant financial support for this work that could have influenced its outcome.

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APPENDIX

SURVEY QUESTIONNAIRE

ةيلااتلا ةلئسالا نعةباجإلألضف

Please answer the questions below

I. Please identify your nature of work:

Nature of your work: medical staff or nonmedical staff Figure 1

لمعلاةعيبطديدحتءاجرلا

يبطريغرداك - يببطرداك

II. Please tick the answer: 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 Strongly agree.

1 = عدد شب قفاوم ريغ، 2 = قفاوم ريغ، 3 = دياحم، 4 = قفاوم، 5 = عدد شب قفاوم

	1	2	3	4	5
1	ريدمال او رشابمالم فرشمالم عم لصاوتالم بلطتي يذلا عضولم لسهلالم It is easy to know the situation that requires communication with the direct supervisor or manager				
2	زكرمالم لخالني فظومالم نيب نواعتم دجوي There is cooperation between employees within the center				
3	ةلادعب نيفظومالم عيمج يلع تامارجال او حئاولالم قيبطتب زكرمالم موقتي The center applies the regulations and procedures to all employees fairly				
4	ةرادالم ري دقت لمح ةلوذبمالم دوهجمالم The efforts made are appreciated by the management				
5	فظومالم نم ةبولطمالم مامالم يه ام حضاولالم نم It is clear what tasks are required from the employee				
6	هسفن ءاقلت نم لكاشمالم ضعب لمح راكتبمالم ةلواحم فظومالم لوبقمالم نم It is acceptable of the employee to innovate and try to solve some problems on his own				
7	ماع لكشب ةفلتخمالم زكرمالم ماسقالم لمع لصيلصافتب عمالطالم يلع فظومالم The employee is familiar with the details of the work of the various departments of the center in general				
8	تنامك ةلسوي أب لمعالم يف ةبولطمالم مامالم ةيداتم مهمالم نم It is important to perform the required tasks at work by any means				
9	تارارقمالم ضعب داختمالم يف نيفظومالم كارشابمالم ةرادالم موقت Management involves employees in making some decisions				
10	نيرخ اصاخشأ كراشممب هلمع ةيداتمب فظومالم موقتي The employee performs his/her work with the participation with other people				
11	نيفظومالم هاجتم ةرادالم وأ مهضعب هاجتم نيفظومالم لبق نم ينوادع دجوت دجوي ال There is no aggressive attitude between employees or the management towards the employees				
12	زكرمالم يف وم نل او عسوتالم بجمي The center must expand and grow				
13	ةرداعم وأ فيظومت لائمالم ليلع يلع زكرمالم لخالمد حدح ثودح دنن نيفظومالم نيب (ةميسر ريغ) تاداع دجوت نيفظومالم دحاً There are an (informal) rituals in different events takes place in the center for example when a newly hired employee joins the center or an employee leaving the center for good.				
14	زكرمالم جراخ اهمادختمساب موقت ال تاحلطمالم او تاملكالم ضعب There are terminologies you do not use outside the center				
15	ثاالمالم بيترت ةقيرطو عونو روكيدالم نم طقف روصالم لخال زكرمالم ةفرعم لهلالم It is easy to know the center through the pictures only, such as the decoration and the type and style of arranging the furniture				
16	باقعالم نم رنكاً ةئفكالمالم زكرمالم ةسايسم نم The center's policy is rewarding more than punishment				
17	زكرمالم نينواقبمالم ةرادالم مزلتلت The administration abides by the laws of the center				
18	اهاطختمالم نم ةبقاعم ممتيو وفورعم ةينهمالم باءالم The center's code of ethics violation consequences are known				
19	زكرمالم لخالدمعالم ءانثأ فوخالم وأ قلقالم رعبشالم I do not feel anxious or afraid while working inside the center				
20	اضرالم رعبشأو يلمع ةجيتنم يراً I see the result of my work and feel satisfied				