FACTOR AFFECTING HOSPITAL CHOICE OF HOSPITAL

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Abstract - Hospitals are complex organizations both providing health services and providing educating services and hotel services. The fact that many services are given together negatively affects patient satisfaction and adversely affects the preference of the hospital. Because of competing hospitals and increase competitive conditions, hospitals have to providing better health service for their preference in health sector.
The aim of this study is to examine the factors affecting hospital selection of patients. For this purpose, a survey study was done on patients who were served from a private hospital. The research was done between June and December months of 2016 year. The questions of survey have consisted two sections. In the first section there are nine questions to show demographic factors that belong to participants. On the other hand in the second section eighteen questions were asked factors effecting of hospital selection using five point Likert scale. 483 peopleparticipant the research. As a result of the factor analysis three factors has been obtained. These factors are named institutional factors, suitable factors and environmental factors. According to 5% significance, a significant correlation was found between the level of education of the participants and the institutionalization of the hospital, in the study.

Keywords - Hospital, hospital choice, patient satisfaction

I. INTRODUCTION

Hospitals are extraordinarily complex organizations (1) that serve people of all ages and cultures. For this reason it is a difficult process to be preferred by people from all walks of life. Despite the fact that the desired levels of health services cannot be reached, there are significant increases in hospital numbers. As the number of health institutions increases, both competition conditions and patient preference criteria have increased. For this reason, healthcare organizations are more emphasis on patient demands in order to be preferred by patients. There are many factors that affect the patient's hospital preferences. Some of these are health care quality, physical facilities (2), prices, consideration of complaints and recommendations of patients (3) and demographic factors (4).

II. FACTORS AFFECTING HOSPITAL CHOICE OF PATIENTS

The globalization of the World has affected health care. Nowadays it has become able to receive health services from different countries of the world according to the patient budgets. Patient satisfaction plays a significant role in the health care process (5). This situation also has affected the patients' hospital preferences. There are many factors that affect the patient's hospital preferences. Some of these are the environment in which the service is offered, modern machinery and equipment, hospital image (2). Factors such as the hospital's accessibility, environment, working hours, parking, cleanliness, quality of food services are considered as environmental and institutional factors affecting patient satisfaction (6). Health organization have to providing needs of target market for continuous success and own existence (7). According to the research that is done by Al-Doghaitler and colleagues, hospital select criteria had collected under the six titles (8).

III. METHOD OF RESEARCH

The study was done on patients of in a private hospital in Istanbul city using survey method. The study is also a quantitative research which evaluates the preference criteria of patients receiving services from private hospitals. The questions of survey consist from two sections. In the first section there are nine questions to show demographic factors that belong to participants. On the other hand in the second section eighteen questions were asked factors effecting of hospital selection using five point Likert scale. In this section, it has been tried to investigate what they consider when choosing a hospital where patients buy services.

The Aim of Research

The purpose of this study is to investigate what patients are receiving services from hospitals when they choose hospitals, and thus to inform the hospitals of the issues they should pay attention to when making a service presentation. For this purpose a scale was develop and implemented. Participants were requested to give their answers from absolutely agree (5) to absolutely disagree (1). The collected data were examined with entering into SPSS 22.0 software package.

Limitations of the Study

The study was conducted in a private hospital for a period of six months. In this period, volunteers from patients participated who buy health service in the study. For this reason, number of participant have limited to 483 people.

The Universe and Sample of Research

The study was done in a private hospital which serving in Istanbul from June 2016 to December 2016 because of the large number of private hospital alternatives and patient potential. For this reason, the survey was done on patients who are come the hospital. A total of 483 people, 351 women and 132 men, participated in the study.

Analyzes were described according to the 5% significance level (p) and the 95% confidence interval level.

According to literature the scale is found reliable at good level (corncbachalpha ,854). This shows that the questions that make up the scale are consistent, understandable, and sufficient in relation to each other, which can reveal the truth of the research conducted. The research is largely reflective of the issues of interest.

The scale have consisted 27 questions that 9 dependent and 18 independent.

For each question that makes up the survey have been analyzed and revealed to contributed to the whole of the questionnaire. Question-According to all statistics, since there was no significant difference between the Cronbach's Alpha coefficients after the question was taken; all the questions had to be included in the scale.

Hypotheses of research

H1: according to sex, there is a significant difference between environmental factors and hospital preference of patients

H2: There is a relationship between the level of education of the participants and the institutionalization of the hospital in the selection of the hospital

H3: There is a relationship between the institutional structure of the hospital and the frequency of hospital admission

IV. FINDINGS

First of all, the survey model is suitable for factor analysis and this has been proved with KMO. The KMO value is found ,929 and which is very good according to the literature. Bartlett's test significance (p = 0,000), which tests whether variables correlate with each other, also suggests that it is suitable to do factor analysis.

As a further proof of the suitability of the factor analysis, the diagonal values of the anti-image correlation coefficients were found to be greater than 0.50 and the question was not extracted from the factor analysis. Principal component were selected as the method and factors, which greater than eigenvalues 1, were considered. Three factors were found over the eigenvalue 1 and in the cumulative total, this scale can account for 57,064% of the property being measured. If the total variance was explained, 57,064% of the data were not sufficient, and the questionnaire could be replicated by adding new questions and factors. In order to increase the readability and create a more suitable structure, the rotation is done by varimax method.

Three factors were found as a result of the factor analysis and it was observed a common structure between factor components. These factors were named as institutional factors, suitable factors and environmental factors.

Whether the differences between the categorical independent variable groups were statistically significant or not was investigated by One-Way Anova.

The questions that differently between the group averages are the ones below ,05 in the value of significant according to the results of One Way Anova Test

It is researched with correlation analysis the relationship between the question and factors that have consisted from questions. Lots of relationship is found between the section's questions at both 1% and 5% level of significance.

Evaluation of hypothesis

H1: According to sex, there is a significant difference between environmental factors and hospital preference of patients.

Group Statistics								**t-test for Equality of Means**
Sex		N	Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
Environ-mental factors	**Male**	131	-,1785	,88932	,07770	-2,408	478	,016
	Female	349	,0670	1,03173	,05522			

Table1. Independent Samples Test

Results of according to analysis a significant difference was found between averages of male and female groups. Because of significance value related difference is smaller than 0.05 the hypothesis was accepted (p= 0,016<0,005)

H2: There is a relationship between the level of education of the participants and the institutionalization of the hospital in the selection of the hospital.

In the second section of the research, it was assumed that education status is effective in selecting the hospital and also it would be influenced from institutional. So the institutional factor was determined as dependent variable, educational status was determined as independent variable. It was researched relationship between two variables by model of binary regression.

Model Summary				
Model	R	R Square	**Adjusted R Square**	**Std. Error of the Estimate**
1	,152a	,023	,021	,98934590

a. Predictors: (Constant), Educational status?

Table2. Model Summary

In the model, according to the R value which indicates the absolute value of the correlation coefficient, it was found a relationship (level of 15%) between dependent and independent values. According to R Square which is deterministic coefficient, 2.3 of the change in the institutional factor applications are explained by the educational variable that was determined as independent variable.

ANOVAa						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	**Regression**	11,131	1	11,131	11,372	,001b
	Residual	467,869	478	,979		
	Total	479,000	479			

a. Dependent Variable: Institutional factors

b. Predictors: (Constant), Marital status?

Table3. Anova

The significance value (Sig.=0,001<0,05) which corresponding to the F value (11,372) in the Annova table has showed that the model is meaningful as a whole.

Coefficientsa						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	**(Constant)**	,330	,108		3,062	,002
	Educational status	-,147	,043	-,152	-3,372	,001

a. Dependent Variable: Institutional factors

Table4. Coefficient table

In the coefficient table, it is seen that the t-value which corresponding to the ınstitutional factor parameter is significant at the level of 5% significance.

The fixed term of the institutional factors are 0,330, this coefficient has changed to significantly and at the -147 level in the case of 1 unit change in education.

According to the Model of Regression;

R= ,152

F= 11,372 (p=0,001)

t= -3,372 (p=0,001)

As a result the hypothesis was accepted. In other words, institutional factors of hospital have been influenced from the educational factor.

H3: There is a relationship between the institutional structure of the hospital and the frequency of hospital admission.

In the third model of research, the incidence of come to the hospital was determined as independent variable, institutional factors were determined as dependent variable. It was researched relationship between two variables by model of binary regression.

Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	,173a	,030	,028	1,168

a. Predictors: (Constant), Institutional factors

Table5. Model Summary

In the model, according to the R value which indicates the absolute value of the correlation coefficient, it was found a relationship (level of 17, 3%) between dependent and independent values. According to R Square which is deterministic coefficient, 0, 3 of the change in the institutional factor applications are explained by the incidence of come to the hospital that was determined as independent variable.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20,229	1	20,229	14,820	,000 b
	Residual	652,469	478	1,365		
	Total	672,698	479			

a. Dependent Variable: which incidence

b. Predictors: (Constant), Institutional factor

Table6. Anova table

The significance value (Sig. = 0,000<0,05) which corresponding to the F value (14,820) in the Annova table has showed that the model is meaningful as a whole

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,115	,053		39,653	,000
	Institutional factors	-,206	,053	-,173	-3,850	,000

a. Dependent Variable: which incidence

Table7. Coefficientsa table

In the coefficient table, it is seen that the t-value which corresponding to the ınstitutional factor parameter is significant at the level of 5% significance.

The fixed term of the institutional factors are 2,115, this coefficient has changed to significantly and at the -206 level in the case of 1 unit change in the incidence of come to the hospital

According to the Model of Regression;;

R= ,173

F= 14,820 (p=0,000)

t= -3,850 (p=0,000)

As a result the hypothesis was accepted. In other words, institutional factors of hospital have been influenced from the incidence of come to the hospital.

DISCUSSION AND CONCLUSION

According to the research, the most important reason affecting the hospital preferences of the patients is that the health personnel are behaving well with the patients (mean= 4,14). Communication between hospital staff and patient affects patient satisfaction positively. It is stated that a satisfactory communication cannot be established between the nurses and the patients and their relatives and it should be eliminated with in-service trainings (9). In order to improve quality of healthcare, the knowledge, skills, attitudes and behaviors of healthcare professionals need to be improved and to increase level of patient satisfaction (10). On the other hand serving many patients may negatively affect the quality of care (11). For this reason this balance must be provided well.

The second reason for affecting hospital preferences of patients is correct of examination and treatment's results. In the research that is made Tashjian and et al there was a strong relationship between the functional outcome of surgical intervention and patient satisfaction (12). Access to right information about the health information of patients will increase their preference.

In this study, the relationship cannot found between ages which independent variable and patients' hospital preferences. In other a study, it is found as you get older the rate of preference of state hospital falls because of the number of patients is higher in state hospitals (13).

In this study, the relationship was not found between social insurance and hospital preferences however it was observed that the hospitality preference was influenced by the environment. In another study it was observed that one of the most important factors affecting hospital choice was social insurance and the other was environmental advice 14).

Factors affecting hospital preference in the study were found to be staff interest, environmental factors (recommendation) and institutional factors. According to in other study, factors affecting the selection of hospitals are that the institution is modern, the physical conditions are good and the institution's the old patient (15). This result is similar to the result of our research.

Although the manufacturer of health care is a physician, patients are now actively involved in this process. Therefore, hospitals should care the preferences of patients however patients, the reason for the existence of the hospitals

As a result, patients attach importance not only to the expertise of the physician but also to the modernity of the medical devices of the patients, the goodness of the laboratory results and the good public relations unit. Therefore, it is suggested that health institutions attach importance to all factors in order to increase their preference. Further research is recommended to determine the factors affecting the hospital preferences of the patients.

REFERENCES

[1] Glouberman, S., Mintzberg, H. Managing The Care of Health and The Cure of disease-Part I: Differentiation. Health Care Management Review 2001; 26(1): 56-69.

[2] Tengilimoğlu, D. Factors influencing hospital selection: A field survey. Gazi University Faculty of Economics and Administrative Sciences Journal 2001; 3(1): 85-98.

[3] Aytekin, A. Ranking Hospitals in City Center of Eskişehir by MULTIMOORA, Journal of business and economics studies 2016; 4(4): 134-143.
[4] Özdemir, E., Kiliç, S., Aydin, Z. B. Hospital Selection of Patients as a Consumer After Social Security Reform: A Survey Study On Marketing. Uludag University, Journal of Faculty of Economics and Administrative Sciences 2010; 1(29): 1-27.
[5] Westbrook, J. I. Patient satisfaction: methodological issues and research findings. Australian health review 1992; 16(1): 75-88.
[6] Yilmaz, M. Patient satisfaction: A Criteria of Health Care Quality. The Cumhuriyet Nursing Journal 2001; 5 (2): 69-74
[7] Bayin, G., Önder, Ö. R. A Research for Determining The Patient Loyalty Level of Outpatients Who Admitted To A University and A Training And Research Hospital In Ankara. Hacettepe Journal of Health Administration 2013; 16(2): 105-121
[8] Al-Doghaither, A. H., Abdelrhman, B. M., Saeed, A. W., Magzoub, M. E. M. A. Factors influencing patient choice of hospitals in Riyadh, Saudi Arabia. The journal of the Royal Society for the Promotion of Health 2003; 123(2): 105-109.
[9] Geçkil, E., Dündar, Ö. G. Ö., Şahin, Ö. G. T. Evaluation of Patients' Satisfaction Levels from Nursing Care at the Centre of the City Adıyaman. Journal of Hacettepe University Faculty of Nursing 2008; 15(2): 41-51.
[10] Gülmez, M. Satisfaction Measurement in Health Service and an Application to the Clinic for Out-Patients at Cumhuriyet University Hospital. Cumhuriyet University Journal of Economics and Administrative Sciences 2005; 6(2): 147-169
[11] Choi, J. H., Park, I., Jung, I., Dey, A. Complementary effect of patient volume and quality of care on hospital cost efficiency. Health care management science 2017; 20: 221-231.
[12] Tashjian, R. Z., Bradley, M. P., Tocci, S., Rey, J., Henn, R. F., & Green, A. Factors influencing patient satisfaction after rotator cuff repair. Journal of Shoulder and Elbow Surgery 2007; 16(6): 752-758.
[13] Özkoç, H. Determination of The Factors Affecting The Choice of Facility of Patients: Correspondence Analysis and Nested Logit Model. DokuzEylul University The Journal of Graduate School of Social Sciences 2013; 15(2): 267-280.
[14] Zerenler, M., Adem, Ö. The Quality of Service Perceived in the Health Sector and the Reasons for the Preference of the Hospital: Example of Konya city. Selçuk University Journal of Social Sciences Institute 2007; (18): 501-519.
[15] Aksoy, A. D. Consumer Satisfaction at Health Service Marketing: The Views of Inpatients Concerning Hospital Services. Journal of Turkish social research 2014; 173: 185-196.

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