Effect of dimensions of service quality on satisfaction of patient, intention of referring again and oral advertisement

Fereshteh Ataafarin¹, Morteza Hazraty²

¹Department of Public Management, Bandar e Anzali International Branch, Islamic Azad University, Gilan, Iran, ²Department of Public Management, Bandar e Anzali Branch, Islamic Azad University, Gilan, Iran

Abstract

Hospital is the most important healthcare institution because it is important arm of healthcare services at the first level of referring with distinct responsibility territory. On the other hand regarding increase of private hospital competition and based on this principle that “the thing that can’t be measured can’t be managed”, scientific management based on existing reality in hospitals will not be possible without establishment of the system of scientific assessment for identification of strength and fields of improvement in these centers. The goal of current research is considering effect of dimensions of service quality on patient satisfaction and satisfaction on intention of referring again and oral advertisement of patients of private hospitals in Rasht city. Based on using Cochran formula unlimited society of 389 people were chosen as samples and by using tool of questionnaire we collected viewpoint of sampling people about variables of research. Then by using SPSS software we described demographic features and then statistical test was done proper to the nature of research. Finally by using structural equation approach items of research wastested. Result of testing hypothesis showed that all dimensions of service quality affects patients satisfaction. Also it was distinguished that service quality has meaningful effect on satisfaction of patients, intention of referring again and their oral advertisement. In the end some suggestions were presented for hospital and future research.

Key words: Intention of referring again, Oral advertisement, Service quality, Satisfaction, Hospital, Rasht city

INTRODUCTION

Hospitals were the most important factor of system of healthcare and regarding resources half of cost of healthcare are devoted to them because it is the greatest unit of operating unit of healthcare and absorb much section capital, financial and humanity resources. Hospitals have taken support of primary care of services in system of healthcare that without playing their effective role at supplying qualitative and effective care healthcare system will not be complete. Main mission of hospitals is supplying qualitative care for patients and meeting their needs and expectation. Meeting this important mission needs institutionalized quality of hospitals as each member of this service institution count it as its duty and not as part of his duty and a separate duty. However various studies about assessing hospital service quality and degree of satisfaction of patients about hospitals denotes the reality that there is many challenges and frequency in this field. Therefore quality of these continuous services should be paid attention so that hospital become aware of its probable problems in different fields and solve them (Hekmat pou, 2011). Measurement and service quality management is necessary for healthcare organizations. Providing sufficient information about customer perception content can affect organizations at identifying fields and dimensions that affects competitive advantage of organization and on the other hand prevent wasting resources. In this direction it seems that by identifying principles of quality in health section we can improve process of presenting services and supply customer satisfaction as a very sensitive factor in the field of current competition and by assessing degree of effectiveness of these services become certain about thirdcertainty(Tayebi, 2012). By existence of much pressure that existed for enhancing service quality, complexity and existence of problems such as standard features for...
supplied services or lack of identifying dimensions of quality in service area, postpone process of writing models of measurement over years (Asadi, 2010). Increasing development in the area of medical science and also increasing awareness and expectation of customers has changed organizations presenting services of heath into customer-oriented and competitive environment.

Therefore these organizations think for development and continuity of their activity for enhancing service quality with its cost-effectiveness and it will not be possible unless through attracting customer satisfaction. Satisfaction is a cognitive and affective reaction during which a person claims satisfying his needs and in medical services mental and social needs on one hand and physical needs on the other hand is identified that in this direction and regarding high goals of system of Islamic republic of Iran presenting service to patient is possible through the best way. Satisfaction of patient’s shows presenting services correctly and is counted important sign of quality of healthcare. Satisfaction of patient from accepting unit is important role at marketing process like encouraging people to buy product and using services. Most consumers rely on oral information that achieve from friends and acquaintances, because they know these information more reliable than business advertisement and claims of marketers. Therefore at environment that reliance of consumers to organizations and advertisement has been decreased, oral advertisement present a way for acquiring competitive advantage and gives the possibility to organizations and business companies through which affect brand loyalty. Oral advertisement includes face-to-face communication between a receiver and sender in relation to a service, product and or a brand. Interpersonal communication between consumers points relation with assessment and their personal experience of a company or product. Previous denotes that oral advertisement can have significant effect on behavior of customers loyalty and their satisfaction of product or service of the company, because most customers have much reliance to communication that isn’t by marketers. Importance of oral advertisement is the information about an organization that provides for consumers and in many cases helps them to decide to be support of an organization or not. Therefore oral advertisement help loyalty of new customers to organizations (Lee, 2010).

Satisfaction of patient was one important goal of ministry of health and medical science university and has been paid attention. Assessment of efficiency and service quality presented to people in healthcare section is one important priority of ministry of health and consideration of degree of satisfaction of users of service is one important method of assessing quality of healthcare services (Amani, 2013). Increasing development in the area of medical science and also increasing awareness and expectation of customers has changed organizations presenting services of health to a customer-oriented and competitive environment. Therefore these organizations for development of their activity think of enhancing quality of their services with its cost-effectiveness and it will not be possible unless through attracting customers’ satisfaction. Now organizations presenting services in section of health and especially hospitals try to meet needs and expectation of patients therefore patients are the only source of compatibility for judgment about service quality and when understanding of a patient about a service is in this form that its quality is more than its expectation then we can claim that hospital present qualitative service (Kitapchi, 2014). Therefore in
this research researcher is going to answer the question that does dimensions of service quality affect patients satisfaction and satisfaction on intention of referring again and oral advertisement of patients of private hospitals in Rasht city?

Research Conceptual Model
In dynamic and competitive environment of services, presenting satisfying value for customer is necessary and failure in doing this work causes loosing customer and decreasing income in future that has high replacement cost. Degree of success of a product or service in supplying customers' expectation while consumption shows quality of that product or services. Customers who use services can't observe result of their work before service. Generally judgment and conclusion of customers about service quality is resulted from their observation about appearance of organizations, tools of work and carrying and presenting services, appearance of staff, the way of presenting service and price. The goal of presenters of services is increasing positive data that is given to customer. One of these positive results is satisfaction. It can be said that there is positive relation between customer satisfaction and his behavioral intention (intention of referring again). Also satisfaction affected customer's priority and their positive advice to others. Therefore creating quality in service not only affects customer's satisfaction but the probability that customers will have positive behavior in future will increase that this is changing intention to repurchase and development of positive oral advertisement (Bond and tomas, 2011). Theoretical framework is the framework based on which the whole research is established. This framework is a reasonable, descriptive network including existing relation between variables that have been identified based on process like interview, observation and consideration of background. Therefore based on the thing that has been considered in research literature in current research Kitapsi model that has used in his research in 2014 will be used as conceptual model and based on it research hypothesis will be written. In the falling in fg(1) research conceptual model are explained.

Regarding research model, hypothesis of research are explained as below:

Main hypothesis
1. Service quality has positive effect on satisfaction of patients of private hospitals in Rasht city.
2. Satisfaction of services has meaningful effect on oral advertisement of patients of private hospital in Rasht city.
3. Satisfaction has meaningful effect on intention of referring of patients of private hospital of Rasht city.
4. Oral advertisement has meaningful relationship with intention of referring of patient of private hospitals of Rasht city.

Subordinate Hypothesis
1. Accountability has meaningful effect on satisfaction of patients of private hospital in rasht city.
2. Sympathy has meaningful effect on satisfaction of patients of private hospitals in Rasht city.
3. Service guarantee has meaningful effect on satisfaction of patients of private hospitals in Rasht city.
4. Certainty (service credit) has meaningful effect on satisfaction of patients of private hospitals in Rasht city.
5. Tangible factors of services has meaningful effect on satisfaction of patients of private hospitals in Rasht city.

METHODOLOGY

This research regarding goal regarding goal is applied and based on method it is descriptive that describes samples and then generalizes these features to statistical society. Briefly we can say that this research is descriptive and surveying-correlation type. For data collection in the field of theoretical principles and subject literature library studies and papers and for data collection and information for analysis questionnaire has been used. Method of data collection is field type. Statistical society of current research is customers of private hospital in Rasht city. Regarding that statistical society of this research are 5 private hospitals in Rasht city so members of statistical samples should be chosen from customers of this hospitals. Proper distribution of sampling people between customers of hospitals needs awareness of degree of customers of each hospital. Therefore referent at the first month of each season in 2015 was the basis of number of referent to each hospital and then by the whole referent of the first month of each season and dividing on the whole referent, average monthly referent in each hospital were calculated. Then the whole referent to each 5 hospitals collected (totally 7573 ones) and by dividing referent of each hospital on the whole referent, share of each hospital of statistical society was calculated and based on this criteria number of statistical sample for each hospital was distinguished that is explained in below.

*Golsar hospital: average referent in each month were 2081 ones that regarding that share of this hospital was 27% of the whole statistical society share of this hospital of sample member of research was distinguished 105 ones.

*Aria hospital: average referent in each month was 1920 ones that regarding that share of this hospital were 25%
of the whole statistical society share of this hospital about sample member was distinguished 97 ones.

*Ghaem hospital: average referent in each month was 1739 ones that regarding that share of this hospital was 22% of the whole statistical society share of this hospital of sample member of research was distinguished 880 ones.

*Family hospital: average referent in each month were 840 ones that regarding that share of this hospital was 11% of the whole statistical society share of this hospital of sample member of research was distinguished 43 ones.

*Totonkaran hospital: average referent in each month were 993 ones that regarding that share of this hospital was 13% of the whole statistical society share of this hospital of sample member of research was distinguished 50 ones.

Sampling method in current research is available improbable sampling method. Number of studying sample in this research is 384 ones. Researcher for preventing decrease of samples has distributed 404 questionnaires among customers and finally 389 ones were collected. Since return rate of questionnaire was obtained higher than 0.9, so 389 questionnaire were chosen for final analysis. Questionnaire of research was a standard questionnaire that has been designed by Kitabhi in (2014). This questionnaire has been used after translation and localization. For considering validity of questionnaire content validity and construction validity have been used. Also for considering reliability of questionnaire cronbach alpha coefficient have been used. Also for more exact consideration of credit of questionnaire index of KMO and Bartlette have been calculated for variables and the whole questionnaire. Degree of KMO test for the whole variables and the whole questionnaire was obtained higher than 0.5, so we can have factor analysis. On the other hand sig of Bartlette test was obtained less than 5, so there is proper relationship between data structure. Result of considering reliability and also factor credit has been mentioned in Table (1).

### Table 1: Result of reliability and factor credit of measurement tool

<table>
<thead>
<tr>
<th>Model's variable</th>
<th>Amount of cronbach alpha</th>
<th>KMO</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certainty and credit</td>
<td>0.718</td>
<td>0.500</td>
<td>0.000</td>
</tr>
<tr>
<td>Responsibility and accountability</td>
<td>0.750</td>
<td>0.748</td>
<td>0.000</td>
</tr>
<tr>
<td>Sympathy</td>
<td>0.793</td>
<td>0.552</td>
<td>0.000</td>
</tr>
<tr>
<td>Tangible factors</td>
<td>0.825</td>
<td>0.664</td>
<td>0.000</td>
</tr>
<tr>
<td>Guarantee</td>
<td>0.749</td>
<td>0.512</td>
<td>0.000</td>
</tr>
<tr>
<td>Patients' satisfaction</td>
<td>0.768</td>
<td>0.632</td>
<td>0.000</td>
</tr>
<tr>
<td>Oral advertisement</td>
<td>0.720</td>
<td>0.541</td>
<td>0.000</td>
</tr>
<tr>
<td>Intention of referring again</td>
<td>0.840</td>
<td>0.784</td>
<td>0.000</td>
</tr>
</tbody>
</table>

### Data Analysis

Before data analysis researcher has used Kolmogorov-smirnov test for considering normality of data distribution. Kolmogorov-smirnov test is simple non-parametric method for determining convergence of experimental information with selective statistical distribution. In this test null hypothesis that we will test is distribution of observations and distinct distribution with distinct parameters that we thought with different deductions, observation distribution adapt with that distinct distribution. Regarding that sig of all variables of research is bigger than 5%, so distribution of all data of research variable follows normal distribution (Table 2).

### Confirming Factor Analysis

In this section two important output of lisrel software that is model in standard estimation and meaningful coefficient are presented:

#### Model in Standard Solution Mode

This estimation is called standard solution. Standard solutions are convergent coefficient that is their scale has become alike and there is possibility of comparison between them. In mode that this amount between hidden and obvious variables are considered, equals the same correlation coefficient or factor load. In doing confirming factor analysis, and if it is considered between two hidden variables they are the same direction coefficient or regression standard beta. Factor load of model in standard solution mode show degree of effect of each variable or items in explaining variance of varied scores or main factor. In standard solution mode there is possibility of comparison between observed variables explaining hidden variables. Result of confirming factor analysis of variables showed that measurement model of variables is proper and all numbers and parameters of the model are meaningful. Result of measurement model denotes positive and meaningful relationship between variables. Regarding (Figures 1a and b, 2) we can observe factor load of each questions of research. Amount of determination coefficient is a number between 0 and 1 that as it closes 1, amount of variance is more.

#### Model in T-value Mode

Model estimation in this mode is called estimating t-coefficient. Model in t-coefficient mode or meaningful mode shows amount of t statistic that are used for judgment about meaningfulness of relations. In this form that if amount of t statistic is between +1.96 and -1.96, coefficients are not meaningful and it leads to rejecting hypothesis of research and in mode that are out of this limitation they are meaningful. These amounts in mode that are not meaningful are distinguished with red color.
Fit Index of Model

In Table (4) indexes related to fit model have been mentioned by its favorable amount. In comparing amount of research model and favorable amount this subject is appeared, research model is located in favorable mode regarding all indexes. Regarding output of lisrel amount of chi-square is 181.44 low degree of this index shows little difference between conceptual model with observed data of research. Also amount of RMSEA is 0.048 that shows goodness of fitting. Allowed limit of this index equals 0.08. Therefore it is observed that this amount is smaller than allowed limit that shows goodness of fitting. As this amount is less model has better fitting. Fitness of model of GFI and AGFI that is relative amount of variances and covariance that is explained through common form of model. As this amount is closer to 1 fitting of data will be more proper. This amount is 0.85 and 0.91 that is proper.

Conclusion and Managerial Suggestion

Hospitals like any other business need customer saving, advertisement, loyalty and their referring in order to be successful. One method of increasing refer of patients is concentration of hospitals on dimensions of service quality presented and satisfaction of patients. In fact refer of patients leads to decrease of costs and increase of income for hospitals. In current competitive market, oral advertisement by patients or their families devotes more value to itself. Positive experience of patients and his family about hospital is valuable, in fact perception of patients about services received is valuable, because oral advertisement is one effective and powerful methods in choosing gods and services especially in subject of health that is very sensitive and reliance of people to advice of surrounding people for choosing hospital is effective. Also by increase of awareness of customers about services presented by private and public hospitals has increased, in a form that patients demand more cooperation in their healthcare plans. Satisfied patients of the process of cure refer to the same hospital for continuing cure or continue their cure at the same hospital. Also these patients are ready to pay cost of their healthcare services. Since presenting services lower than expectation limit causes customers and beneficiaries of services achieve less credit and reliance

<table>
<thead>
<tr>
<th>N</th>
<th>Service quality</th>
<th>Satisfaction</th>
<th>Oral advertisement</th>
<th>Intention of referring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig</td>
<td>389</td>
<td>389</td>
<td>0.103</td>
<td>0.114</td>
</tr>
</tbody>
</table>

In Table (3) result of considering hypothesis of research have been mentioned briefly:

Figures 3 and 4 show meaningfulness of coefficient and obtained parameters of the model that all coefficients have become meaningful. Basis of approving or rejecting hypothesis of research is considering model in meaningful coefficient mode. Regarding mentioned cases all hypothesis of research are approved. Result of considering hypothesis has been mentioned I Table (3).
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Applying qualitative services cause saving cost and creating a satisfying environment. Achieving quality causes satisfaction of patients and effectiveness of presenters of services. In qualitative systems are presented in more proper form and with more precision and unnecessary wasting will become less. Qualitative services of healthcare when are presented with precision and accurately, lead to satisfaction of patients, increasing spirit of staff and decreasing costs of presenting healthcare services. Since consumers of services determine quality based on different factors like: their understanding of skill and professionalness of presenters of services and degree of their knowledge about previous experience of using service, experience of friends and acquaintance, their understanding of environment and atmosphere of care and personal value and based on quality of services of hospitals causes to presenters of services. Therefore lack of customers’ satisfaction and their negative advertisement provides losses of related hospitals. Because oral advertisement is one effective and powerful method in choosing goods and services. In recent years regarding increase of competition and public sensitivity to the subject of cure, hospitals and especially private hospitals star applying quality at their systems.
customer satisfaction and commitment of customer and loyalty. Finally, regarding dimensions that lead to satisfaction of patients and regarding effect of satisfaction of patients on advertisement and referring again it is necessary related managers pay attention to private hospitals of Rasht city in strategic plan so that strengthen competitive power based on competitive advantage and creating spirit of criticism and customer-orientation at hospital should be promoted in order hospitals achieve their goals and missions. In the following researcher regarding consideration of the relationship between variables of research in hypothesis and weak constructions and in the direction of obtained result of direction analysis presented some suggestions as below:

Regarding effect of responsibility on satisfaction of customer it is suggested: putting criteria of patients and more precision in the way of confrontation and accountability as medical service quality is not damaged.

Regarding effect of certainty on satisfaction of customer it is suggested: increasing speed of presenting services and creating certainty among patients for immediate investigation and also enhancing level of certainty of patients and accompanies to hospitals through controlling different aspects of service quality and determining behavioral standard for each staff of cure and administrative section.

Regarding effect of sympathy on satisfaction customer it is suggested: education of staff of hospital regarding consideration of the relationship between variables of research in hypothesis and weak constructions and in the direction of obtained result of direction analysis presented some suggestions as below:

Regarding effect of guarantee on satisfaction of customer it is suggested: creating balance between receiver of service and paid cost by patient and determining prices reasonably and presenting guarantee to patient for presenting services with maximum quality.

Regarding effect of tangible factors on satisfaction of customer it is suggested: completing hospital equipment required and renovation and updating old equipment for increasing medical service quality and increasing easiness and welfare of patients and its accompanies.

Regarding effect of patients’ satisfaction on oral advertisement it is suggested: survey ratio to assessment of degree of satisfaction of patients and accompanies continuously and in case of dissatisfaction it should be tried to attract satisfaction patients completely. Also it should be tried by using plans and various program like communication with SMS, e-mail preserve communication with patients and hospitals introduce them as accompany of patient until complete cure and encourage patients for oral advertisement.

Regarding effect of patient satisfaction on intention of referring again it is suggested: by creating database of loyal patients to identified hospitals and discounting condition for them should be considered so that prevent price maneuver of competitors. Also it is suggested managers of hospitals find ways that stimulants positive oral advertisement and develop steps that decreases their negative oral advertisement. Management of negative oral advertisement (as defending strategy) through effective approach of acquiring information of complaint not only leads to loyalty of current customers but it is effective at attracting new customers and this is the point that seems hasn’t been paid attention by many hospitals.

**Limitation and Suggestions for Future Research**

In this research variable of customer satisfaction has been considered and expectation differences haven’t been considered with existing situation. Therefore it is suggested in future research expectation difference should be considered with existing situation.

Regarding that hospitals are active as a service organization so result of research may not be correct about other organizations especially productive ones so it is suggested in future research considers organizations with different activities and results.

In this research service quality has been considered based on Seroquel model and other models hasn’t been used, so it is suggested in future research consider models of service quality as effective factor on customer satisfaction.

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Ataafarin and Hazraty: Dimensions of Service Quality on Satisfaction of Patient, Intention of Referring Again and Oral Advertisement


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