Investigating the Relationship Between the Implementation of Healthcare Reformin Public Health Centers with the Insured Satisfaction of HealthInsurance Administration of North Khorasan(Using SERVQUAL Model)

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Abstract: With the aim of satisfying and real social justice among the different groups of the society and also the necessary and sufficient facilities in order to provide the better health services, effective accountability, transformation of the health system from the 1st may 2014 in the country was carried out. In this study, the different dimensions and impacts of this important on the amount of insured satisfaction of North Khorasan Province is investigated. Society of this study includes the insured population those covered by Administration of Health Insurance of Northern Khorasan with the number of 690,000 people. As regards, this study has been survey and statistical society is all those covered by the Administration of Health Insurance of Northern Khorasan Province. The data is collected by questionnaire and for analyzing the data, descriptive statistics and SPSS20 Software is used, for factor analysis and structural equation, the Lisrel8.8 Software has been used. Based on the input received from the statistical tools and results in this research, all hypotheses have been confirmed. It is worth noting that the results achieved indicate the significant relationship of the implementation of healthcare reform in health centers (public) with the level of insured satisfaction of Administration of Health Insurance of Northern Khorasan.

Key words: Healthcare reform plan, health insurance organization, insurance services, satisfaction of insured, Iran

INTRODUCTION

For the first time in 1269 AD by assigning points to the formation of Insurance Institute to a foreign and then revoking it due to failure to perform mentioned obligations, gradually insurance was introduced in Iran (Karimi, 2004). Iran Insurance in 1930 was established as the first public insurance company among unhealthy competitions of foreigners and where colonialism was established and in different fields started to act that with development of its activities, later other insurance organizations were created (Karimi, 2004). In the year 1947, the first health insurance for employees of Iranian Tobacco Company was established and till 1949 a number of government agencies sporadically were covered by health insurance in this year an organization was established titled organization of government's employees insurance that were covered government's employees and committed up to a specific range its treatment costs. Health Insurance Organization was established in 1973 and in 1977, the health insurance organization and Social Security (as two entities in charge

of Social Insurance) in the Ministry of Health were merged Until after the victory of the Islamic Revolution in 1980, the Social Security Organization was separated of the Ministry of Health again and continued his activity as an independent and organization of health services as insurance and income and administration of medical records in the Health Authority continued its activities also in October 1995 as an independent organization and with a separate administrative system under health insurance organization was formed and was providing serving the society. This process was continued until October 2012 until by changes that were predicted in the vision and goals of the organization, the name of health care organization was renamed the Health Insurance Organization. Considering the foregoing and capacity presented in the social insurance issue of the Islamic Republic in the field of health care and also growing importance of this field as proctor of country's health insurance and social welfare, investigating public expectations and even in the later stages, doctor's expectations of the insurance organizations and proper feedback from the organizations is an inevitable issue.

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Thus, it is necessary to numerous scientific studies on this matter be done to be able to develop appropriate solutions for improving the delivery of social health insurance and on the other hand, since the substantial scientific research in this field has not been carried out in Iran so the need for such research is felt.

Perhaps today, sustainable development is devoted a broad discussion to it but one of the main centers of sustainable development is social justice that has always been oppressed. Important pillar of social justice is having all segments of society of physical and mental health that is closely related with living conditions of people and the issue of social insurance to achieve real justice in this field should meet this issue by considering the economic conditions and create different designs.

Insurance is always trying to provide comfort and peace of the people and providing future with high confidence has always been the major concerns as the Supreme Leader said: "We want to see if someone in a family got sick, the family except sick pain, no suffering of others." Which in turn this will determine the prospects for health insurance in the country. Due to the mentioned factors and the importance of customer satisfaction feedback control (Insured) on the one hand and on the other hand, assessing new projects (particularly in the national arena) to estimate the percentage of achieving the objectives and its effects on satisfaction of receiving service (customers) using modern scientific methods would be necessary issue.

The researcher decided to investigate the impacts of issue of "healthcare reform plan" in the level of country on satisfaction of insured of North Khorasan Province. It is hoped that outcomes of this research be successful and helpful in subsequent decisions of managers and administrators and also answer to the questions of researchers.

Research questions:
- What are the factors affecting the satisfaction of insured of healthcare reform plan in the Administration of Health Insurance of North Khorasan Province?
- How is the ranking of factors affecting the satisfaction of insured of receiving services in healthcare reform plan of Administration of health insurance of North Khorasan Province?

MATERIALS AND METHODS

This research is based on collecting data method is comparative survey, in this type of research, the aim is to investigate the distribution of characteristics of a society and most of the management research is in this type. The research for exploratory factor analysis has used 20 SPSS

Software and to perform confirmatory factor analysis and analysis of hypotheses, structural equation modeling is used using the Software Lisrel8.8. The population of this study to conduct a field study including all insured in the Administration of Health Insurance of North Khorasan with the number of 690 thousand people. The sampling method in this study will be according to Morgan table and insured population in Administration of health insurance in North Khorasan.

RESULTS AND DISCUSSION

Statistical description of research data: The most frequency of respondents, 59% are men and the lowest frequency 36.8% are women. Most of the studied samples in terms of age status have average age of 32/79 years. Most of the frequency of respondents 52.10% was employee. The main reason is related to population proportional between men and women, as well as cultural issues and the employment level of insured in province. In terms of type of interest, 51.93% of the sample has insurance of employee and 31.16% were health insurance, 11.87% were rural-tribes and only 5.04% were of other classes. Its main reason can be considered in how to serve and also the current regulations governing each of the funds covered. Also, in terms of receiving service, 35.36% were hospitalized in childbirth part. In terms of providing health services to the insured of health insurance organization and in the form of healthcare reform, health centers are hospitals of Bentalhoda, Emam Reza, Emam Ali, Emam Khomeini and Javadolaemeh.

Test of structural model of the study: Structural model of research in standard mode.

می‌پردازیم. Lisrel در این قسمت به بررسی آزمون فرضیات تحقق با استفاده از نرم افزار

Structural model of research in significant mode: The results of investigating goodness indices of fitness of the structural model indicates fitness of model because the amount of < 0.08 RMSEA indicates an acceptable fit of the structural model. Also, the amounts of CFI, GFI.

Structural model of research in standard mode: To estimate the model, the maximum possibility was used and to fitness of model, the ratio of Chi-square on degree of freedom (χ^2/df), Comparative Fit Index (CFI), index of Fitness (GFI), index of moderating fitness (AGFI), soft indicator of fitness (NFI), Non-soft Index of Fitness (NNFI), Root Mean Square Error of Approximation (RMSEA) was used (Fig. 1).

The results of investigating indicators of goodness of fit of the research structural model that is in Table 1 shows the model fitness, because the amount of <0.08
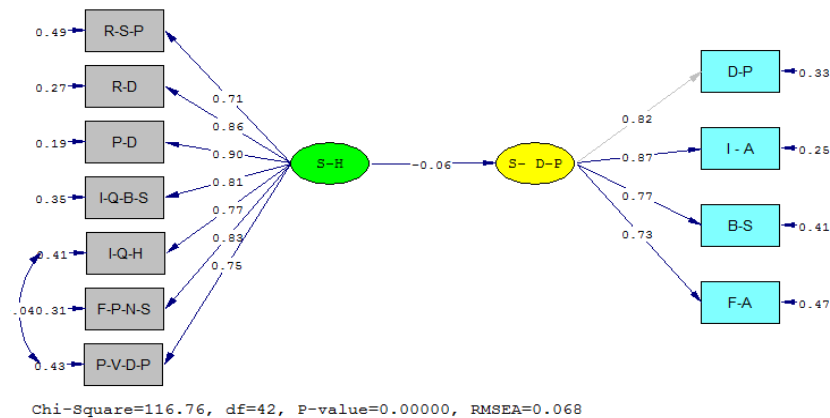
Chi-Square=116.76, df=42, P-value=0.00000, RMSEA=0.068

Fig. 1: Structural model of research in significant mode

Table 1: The results of investigating goodness of fit of structural model of the study

Fitness index	Acceptable range	Amount	Amount	Result
χ^2/df (The ratio of Chi-square on degree of freedom)	<3.00	2.780	2.780	Appropriate
(CFI) Comparative Fit Index	>0.90	0.970	0.970	Appropriate
(GFI) Index of Fitness	>0.90	0.960	0.960	Appropriate
(AGFI) Index of Moderating Fitness	>0.90	0.970	0.970	Appropriate
(NFI) Soft Indicator of Fitness	>0.90	0.970	0.970	Appropriate
(NNFI) Non-soft Index of Fitness	>0.90	0.980	0.980	Appropriate
(RMSEA) Root Mean Square Error of Approximation	>0.08	0.068	0.068	Appropriate

Table 2: Results of direct relationship and significant coefficients of model hypotheses 1

Path	Symbol	Path coefficient	Significant	Test result
Reduce sick pay	SH---RSP1,2	0.71	15.79	Accepted
retention of physicians in underserved areas	SH---RD3	0.86	20.61	Accepted
presence of specialist physician resident in hospital	SH---PD4	0.9	22.49	Accepted
improving the quality of business services	SH---IQBS5	0.81	18.83	Accepted
Improving the quality of Hotelling	SH---IQH6	0.77	17.49	Accepted
financial protection needs of specific patients	SH---FPNS7	0.83	19.69	Accepted
Promote vaginal delivery program	SH---PVDP8	0.75	16.93	Accepted

Satisfaction (hospitalization;reduce sick pay; retention doctor; presence of a doctorImprove the quality of business services improving the quality of hotelling; financial protection needs of specific patients; promote vaginal delivery program

Table 3: Results of direct relationship and significant coefficients of model hypotheses 2

Path	Symbol	Path coefficient	Significant	Test result
How to provide insurance services	SDP---DP9,10	0.82	-	Accepted
How information and advertising	SDP ---I-A11	0.87	18.44	Accepted
How behavioral status and public relations of personnel	SDP --B-S12	0.77	16.22	Accepted
How welfare and administrative facilities	SDP ---F-A13	0.73	15.22	Accepted

Satisfaction development plan; development plan; information and advertising; behavioral status; facilities and amenities

RMSEA indicates acceptable fit of structural model. The values of CFI, GFI, AGFI, NFI, NNFI all are >0.9. In the following tables are path coefficients and significance between the variables. As you can see, the path coefficients to any relationship at the significant level 0.05 (t>1.96 and t<-1.96) is achieved Table 2 and 3.

Ranking factors affecting insured satisfaction from the implementation of healthcare reform is as follows:
- Retention of physicians in underserved areas
- Financial protection needs of specific patients
- Improving the quality of business services
- Improve the quality of hotelling
- Promote vaginal delivery program
- Reduce sick pay
- Presence of specialist physician resident in hospital
- How information and advertising
- How to provide insurance services
- How behavioral status and public relations of personnel
- How welfare and administrative facilities

Investigating hypotheses of technical area:

- H$_1$: There is a significant relationship between satisfactions of insured from reducing sick pay (Franchise 14) in the form of healthcare reform in the Administration of Health Insurance of North Khorasan

Fit model indicates path coefficient amount among the factor of reducing sick pay (franchise) is 0.71and the value of t for this coefficient is 15.79 and its value is obtained higher than the significant threshold 1.96. So, it can be concluded, there is a significant relationship between satisfactions of insured from reducing sick pay (Franchise) in the form of healthcare reform in the Administration of health insurance of North Khorasan.

- H$_2$: There is a significant relationship between satisfactions of insured from retention of physicians in underserved areas in the form of healthcare reform in the Administration of health insurance of North Khorasan

Path coefficient among retention of physicians in underserved areas is obtained 0.86. T static with this relationship is obtained 20.61 and its value obtained higher than significant threshold 1.96. Based on the above it can be concluded, there is a significant relationship between satisfactions of insured from retention of physicians in underserved areas in the form of healthcare reform in the Administration of health insurance of North Khorasan. So, the second hypothesis of this study is confirmed.

- H$_3$: There is a significant relationship between satisfactions of insured from presence of specialist physician resident in hospital in the form of healthcare reform in the Administration of health insurance of North Khorasan

Fitted model indicates path coefficient amount among presence of specialist physician resident in hospital is obtained 0.9. t static with this coefficient is obtained 22.49, it can be concluded that obtained coefficient is less than 1.96 so it isn't significant. So, the third hypothesis of this study is not confirmed. In other words, there is a significant relationship between satisfactions of insured from presence of specialist physician resident in hospital in the form of healthcare reform in the Administration of health insurance of North Khorasan.

- H$_4$: There is a significant relationship between satisfactions of insured from improving the quality of business services in the form of healthcare reform in the Administration of Health Insurance of North Khorasan

As can be considered, path coefficient for improving the quality of business services is obtained 0.81. T static with this coefficient is obtained 18.83, so, the fourth hypothesis of this study is confirmed. In other words, there is a significant relationship between satisfactions of insured from improving the quality of business services in the form of healthcare reform in the Administration of health insurance of North Khorasan.

- H$_5$: There is a significant relationship between satisfactions of insured from improving the quality of Hotelling in the form of healthcare reform in the Administration of health insurance of North Khorasan

As obtained information can be said, path coefficient for improving the quality of Hotelling is obtained 0.77. T static with this coefficient is obtained 17.49, so, the fifth hypothesis of this study is confirmed. In other words, there is a significant relationship between satisfactions of insured from improving the quality of Hotelling in the form of healthcare reform in the Administration of health insurance of North Khorasan.

- H$_6$: There is a significant relationship between satisfactions of insured and financial protection needs of specific patients in the form of healthcare reform in the Administration of health insurance of North Khorasan

As obtained information can be said, path coefficient for relationship of financial protection needs of specific patients is obtained 0.83. T static with this coefficient is obtained 16.69 so, the sixth hypothesis of this study is confirmed. In other words, there is a significant relationship between satisfactions of insured and financial protection needs of specific patients in the form of healthcare reform in the Administration of health insurance of North Khorasan.

- H$_7$: There is a significant relationship between satisfactions of insured from promoting vaginal delivery program in the form of healthcare reform in the Administration of health insurance of North Khorasan

As obtained information can be said, path coefficient for the relationship of promoting vaginal delivery program is obtained 0.75. t static with this coefficient is obtained 16.93, so, the seventh hypothesis of this study is confirmed. In other words, there is a significant relationship between satisfactions of insured from promoting vaginal delivery program in the form of healthcare reform in the Administration of health insurance of North Khorasan.

Investigating hypotheses of public area:
- H_1: There is a significant relationship between satisfactions of insured from how to provide insurance services in the form of healthcare reform in the Administration of health insurance of North Khorasan

Fitted model indicates path coefficient amount among factor of how to provide insurance services is obtained 0.82. So, it can be concluded that there is a significant relationship between satisfactions of insured from how to provide insurance services in the form of healthcare reform in the Administration of Health Insurance of North Khorasan.

- H_2: There is a significant relationship between satisfactions of insured from how to inform and advertise in the form of healthcare reform in the Administration of health insurance of North Khorasan. As it is clear, path coefficient among how to inform and advertise is obtained 0.87. t static with this coefficient is obtained 18.44 and its value is obtained 1.96 higher that significant threshold. According to above cases can be concluded, there is a significant relationship between satisfactions of insured from how to inform and advertise in the form of healthcare reform in the Administration of Health Insurance of North Khorasan so the second hypothesis is confirmed
- H_3: There is a significant relationship between satisfactions of insured from how behavioral status and public relations of personnel in the form of healthcare reform in the Administration of Health Insurance of North Khorasan

Fitted model shows path coefficient among how behavioral status and public relations of personnel is obtained 0.77. T static with this coefficient is obtained 1.05 and obtained coefficient is l<16.22 so it isn't significant. So, the third hypothesis is not confirmed. In other words, there is a significant relationship between satisfactions of insured from how behavioral status and public relations of personnel in the form of healthcare reform in the Administration of health insurance of North Khorasan.

- H_4: There is a significant relationship between satisfactions of insured from how welfare and administrative facilities for companions of patients in the form of healthcare reform in the Administration of health insurance of North Khorasan

As can be observed, path coefficient of how welfare and administrative facilities is obtained 0.73. t static with this coefficient is obtained 15.22. So, the fourth hypothesis is confirmed. In other words, there is a significant relationship between satisfactions of insured from how welfare and administrative facilities for companions of patients in the form of healthcare reform in the Administration of health insurance of North Khorasan.

CONCLUSION

This study aims to investigate the relationship between the implementation of healthcare reform in public health centers with insured satisfaction of health insurance Administration of North Khorasan (using SERVQUAL Model). Therefore, it seems appropriate to while review hypotheses of research, summarize and discuss each of them.

Factor of insured satisfaction on how to provide insurance services in the form of healthcare reform: Fitted model indicates path coefficient amount among factor of how to provide insurance services is obtained 0.82. So, it can be concluded that there is a significant relationship between satisfactions of insured from how to provide insurance services in the form of healthcare reform in the Administration of Health Insurance of North Khorasan. Based on overall results obtained and compare it with previous studies, in this study, the significant relationship between the components of the quality of services provided and customer's satisfaction was confirmed that in the investigation by Molavi and Salehi (2009), by the aim of investigating the relationship between service quality and user satisfaction of Keshavarzi Bank observed that there is a significant relationship between the quality variables, including performance, security, accountability and communication, also in the article by Raiesi *et al.* (2011) that components such as efficiency, accountability, security and contact has been studied, similar result was obtained. At the thesis bt Azar and Momeni (2009) with the aim of identifying factors affecting the overall quality of services, factors of aesthetics of site, reliability, accountability and security were investigated and it was found that security factor has the strongest impact on the quality of services that is consistent with the result obtained in this study.

Factor of insured satisfaction on how information and advertising in the form of healthcare reform: Path coefficient among how to inform and advertise is obtained 0.87. t static with this coefficient is obtained 18.44 and its value is obtained 1.96 higher that significant threshold. According to above cases can be concluded, there is a significant relationship between satisfactions of insured from how to inform and advertise in the form of healthcare reform in the Administration of Health Insurance of North Khorasan so the second hypothesis is confirmed. According to tests carried out, new ways of providing insurance services in the branches totally have been effective in increasing customer's satisfaction. On the other hand, the convergence of the results obtained with the experience of some developing countries such as Ordon that considers traditional and old habits of people as one of the main obstacles to the development of new methods of service delivery and achieving customer's satisfaction, point out necessity of reviewing in the design of systems, more flexibility in the field of modifying software programs and advertising with information and inclusive education of existing and potential customers for their use of these services and ultimately increase customer's satisfaction.

Factor of insured satisfaction on how behavioral status and public relations of personnel of health centers in the form of healthcare reform: Fitted model shows path coefficient among how behavioral status and public relations of personnel is obtained 0.77. t static with this coefficient is obtained 1.05 and obtained coefficient is <16.22 so it isn't significant. So, the third hypothesis is not confirmed. In other words, there is a significant relationship between satisfactions of insured from how behavioral status and public relations of personnel in the form of healthcare reform in the Administration of health insurance of North Khorasan.

Staff behavior "and how their interaction with customers is the most important and most basic element in increasing the quality of service of insurance offices. In the offices due to the nature of service and the role of customers in providing resources, management of relationship with customer and staff acceptance, especially cashiers provide acceptance of offices in terms of consumers, so their performance will be guarantee of success and dynamism of bank. Given that the majority of insurance services are offered by human resources, quality of providing service and the way of contact and performance of service provider is extended to quality of services of offices. Therefore, personnel, behavior, abilities, competencies and skills and how their function is the most important factors that influence on the quality of insurance services. Zitamel, showed that accountability

is related to the speed of response from online stores, especially in cases where the customers have questions or encountered with problems.

For example, how can quickly and efficiently answer customer's questions or requests? Or how can answer the needs and complaints of customers politely via e-mail? How staffs of a website investigate to customer's concerns regarding to complete the transaction? These issues are as part of accountability dimension. Sakaran (2007) believes that accountability shows a company's ability to deliver the right information to customer at the time of problem and having a mechanism for dealing with returning and providing online guarantees.

Given that one of the important measures of quality of services (traditional) is how to contact of staff with customer and accountability, attention to customer-oriented criteria in evaluating the performance of employees, so that affects the behavior of employees with customer and causes to remove feeling of discrimination among customers, can be considered one of the key steps to upgrade the quality factor.

Factor of insured satisfaction on how welfare and administrative facilities provided to companions of patient in the form of healthcare reform: As can be observed, path coefficient of how welfare and administrative facilities is obtained 0.73. t static with this coefficient is obtained 15.22. So, the fourth hypothesis is confirmed. In other words, there is a significant relationship between satisfactions of insured from how welfare and administrative facilities for companions of patients in the form of healthcare reform in the Administration of Health Insurance of North Khorasan.

Human resources play a significant role in the evolution and progress of treatment and considered as one of the important pillars of any organization that has always been emphasized by experts in human resource managemen. One of the main factors in employee's productivity has been attention to their welfare factors. The question is how we can upgrade motivation and commitment and responsibility of the individual in assignments by taking advantage of various stimuli. Providing required incentive to work and pay attention to the incentive forces of staff is among the most important and most complex tasks an administrator (Conklin, 2005).

Attention to staff incentives is effective in increasing the effectiveness and efficiency of the staff remarkably. In other words, managers are paying attention to this important issue that the more the staff motivation is effective, staff efficiency will be more. Obviously, it should be applied different actions in the healthcare organization that are consistent with their function nature and obtained by the initiative of directors and using the

different experiences. Successful managers are always trying to by increasing accountability of their employees put organizations in the path of progress and excellence. One of the cases that is widely used to create accountability in employees is to consider the welfare factors that the organization can provide for them. Facility of employees in the organization will be met with the use of technology of quality of work life. In a study that was conducted by Jamshidi, it was shown that using welfare services such as self-employment loan by women studied causes their empowerment Henry that stated that lack of attention to staff welfare issues is causing lack of motivation and may be outside of organization and that there is a relationship between the welfare of employees and their productivity.

SUGGESTIONS

Research proposals:
- Expansion of healthcare reform to other non-governmental medical centers
- The need to develop job-related educational courses (specialized courses) and increase understandings and abilities (knowledge), skill, labor productivity and client's tribute and accountability
- The necessity for considering process of monitoring performance and social responsibilities of personnel
- Worm up for attracting participation of employees in progress and goals of organization by defining and clarification of objectives, align individual goals with organizational objectives, motivation for participation because motivation of staff has a direct correlation with the satisfaction of customers
- Use of funds of suggestions and complaints and install it in the areas of employees working
- The need to improve the quality and quantity of health services of civilian centers and contracting parties in terms of: identify the needs of the Insured; recognize weaknesses points in the service delivery process with more monitoring
- Strengthening the information system and hospital admissions and medical centers and the need for development of healthcare system plan
- The need to reduce complexities and eliminate process, steps and unnecessary activities
- The need to expand culture of insurance and increase awareness
- The need for newspapers and weekly publications related to the issue of health care reform plan in order to raise awareness of the insured persons
- The need to review the rules and regulations for the purpose of lubrication of affairs

- Since most of the referrals of branches are formed by insured that referred to receive services, predictions and affairs that can accelerate the works and required services to be effective in increasing their satisfaction
- Expanding health care centers involved in healthcare reform plan
- By required training, the quality of contact of staff will be evaluated and improved
- Using the guide sheet, the necessity of organizing, how to organize and its results will be clear for the insured

It is recommended by installing information panels as image symbols and written texts inform insured to the rights, duties and the types of documents needed according to commitments. Also at the time of changing executive with the installation of the directive authorized on the notifications panel notify the insured. The present study was conducted using the perspective of the insured. It seems that a research using the views of managers and staff can be a complement to research in this field.

- The current study is done based on other models of evaluation of customer satisfaction by subsequent researchers
- Since the study was conducted in the health insurance Administration of North Khorasan but it can be investigated in other provinces

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