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Original Article

The impact of implementing health evolution plan on performance indicator of Shahrekord training treatment hospitals – 2016

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ABSTRACT

Background and objective: Health system of various countries needs continuous modifications in its structure and performance for being aligned with changing condition of society and necessity of responding diverse developed needs. The plan of Iran health system evolution is a plan which was codified and implemented for promoting goals of health system, just financial participation, replication increase and improvement of the society health level. In this study, it has been tried to assess the impact of health evolution plan implementation on performance indicators of training treatment hospitals.
Methodology: The present study is of applied type and in descriptive form which was conducted in time interval of 2012 to 2015, that is two years before and two years after implementing health evolution plan implementation by comparing performance indicators of Shahrekord Hajar training treatment hospital using a scholar made checklist. Data analysis was performed using descriptive statistics including frequency, mean and standard deviation and inferential statistics including Lions and T tests in SPSS software.
Findings: The percent of bed occupancy before and after implementing health evolution plan hasn't changed, but the rate of bed turn has increased comparing before plan implementation and average time of patients stay after the plan implementation has decreased comparing before the plan. The number of Para clinic clients and the number of surgeries have increased after the plan implementation. Also, the percent of Caesarian to total child births has decreased after plan implementation.
Conclusion: Using services in the studied hospital has significantly increased comparing before the plan implementation which shows the movement in the pathway of the plan objectives but for complete realization of goals, it is required that suitable planning and interventions are accomplished in national and regional level.

Keywords: health system evolution plan, indicator, performance indicator.

INTRODUCTION

Today, in all countries of the world, one of main concerns of policy makers in health sector is increasing growth of health system costs which has increased as a result of continuous development of new and valuable technologies, increasing of the society's expectations from health system, change of diseases pattern from acute to chronic and health and treatment costs that in this between Iran health and treatment system has not been exempt.

One of significant priorities of each government is to create a just and good health system. Moreover, one of the most important service sectors whose performance is always one of indicators of development and social welfare of every society is health sector. For being aligned with changing conditions of the society and necessity of responding diverse developed needs, health system of various countries have to continuously modify their structure and performance. Undoubtedly, promotion of efficiency and effectiveness of health services, justice creation, supplying stable financial resources and improvement of management level are among important goals of implementing modifications in health system.

Iran health system evolution plan is a plan which was codified for promoting goals of health system,

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just financial participation, replication increase and improvement of the society health level and became applicable in 25.04.2014 in 8 axles. By examining eight existing axles in the health system evolution plan: 1- reducing the payment rate of hospitalized patients in governmental hospitals, 2- supporting physicians persistence in deprived regions, 3- presence of specialized physicians resident in governmental hospitals, 4- promoting hoteling quality in governmental hospitals, 5- promoting quality of visit services in governmental hospitals, 6- plan of propagating natural child birth, 7- plan of financial support of incurable , special and needful patients, 8- floatation of air emergency, we conclude that these cases have been defined for hospital space and its policies focus is on treatment domain, of course spending half of hospital costs for hospital clients and hospitalized patients is a fact which is observed in most of the world countries. For implementing health system evolution plan, each university is obliged to reduce the rate of Caesarian at the end of three months to 2.5%, at the end of six months to 5% and at the end of year to 10%, regarding the basic Caesarian rate at the beginning of the plan. The desirable Caesarian rate is between 25 to 30%. If the rate of Caesarian of the university/ hospital or gerontologist is in desirable, the goal is to retain the present status. Also, the university is obliged to provide required facilities for holding free courses of preparation for child birth especially pregnant mothers.

Based on statistics of world health organization, about three fourth of total budget of health section in developing countries is spent in hospital costs, while about 50% of their hospital beds are unused. Studying health system modification in east Europe indicates increasing of hospital costs and increasing of hospitalization rate in these countries. The results obtained from research on health system modification in Mexico shows extension of insurance system, increasing the support from needful families, widespread investment in health domain especially the technical quality of health services. Though implementing programs of this plan was able to improve patients satisfaction in short term, but regarding the increase of referrals load following reduction of pocket payments, increase of patients expectations level along with relative reduction of services quality – which is forming – considering this point that there are limited resources against indefinite needs, there will be great challenges in the way of stability of these results. Therefore, for obviating these challenges and retaining the obtained desirability, special attention to performing continuous and accurate monitoring by experts and plan administrators and following it, modification and revision of plans is necessary. So, from the onset of implementing this plan, the quality of its implementation and its effectiveness should be assessed by suitable indicators. The indicator is a qualitative description which is reckoned for exact expression of a status, changes of a phenomenon, pursuing the plan progress in achieving specified results and or evaluating utilized performance and a guide for management decision making. Performance indicators of each unit or organization show that how much the objective goals of triggering a unit or organization have been achieved in the given time interval. This category of indicators includes consequences and is usually used as evaluating indicators. Performance indicators are not synonymous with quality but could be representative of it. Undoubtedly, this monitoring and evaluation is a great step for removing created defects.

Regarding the cases mentioned above, we decided to assess the impact of implementing health system evolution plan on some performance indicators of Shahrekord Hajar Hospital during two years which passes from implementing this plan and besides comparing it with two years before the plan implementation, identify our system weaknesses and strengths and finally could take a step, howsoever small, for optimal promotion of the state health system and advancement of health system evolution plan goals.

Methodology

The present study is of applied type and in analytical descriptive form which was conducted in time interval of 2012 to 2015, that is two years before and two years after implementing health evolution plan using performance indicators of Shahrekord Hajar training hospital. The considered information was collected using a scholar made checklist derived from standard performance indicators of Ministry of Health & treatment. These indicators included bed occupancy percent, stay average, bed turn rate, Caesarian percent, the number of surgeries and the number of Para clinic clients. Data analysis was performed using descriptive statistics including frequency, mean and standard deviation and inferential statistics including Lions and T tests in SPSS software.

Findings: Findings showed that on average the bed occupancy percent before implementing health evolution plan was 79.97 and after its implementation was 81.97. Average of patients stay before implementing the plan was 4.11 and after that was 3.89. On average, the bed turn rate before pan implementation was 5.84 and after that was 6.33.

Table 1- Mean and standard deviation of performance indicators of Hajar training hospital before and after implementing health evolution plan

after implementing health evolution plan			before implementing health evolution plan			indicators
bed turn rate	average stay	bed occupancy rate	bed turn rate	average stay	bed occupancy percent	
6.33	**3.89**	**81.97**	5.84	**4.11**	**79.97**	**mean**
0.72	**0.25**	**6.56**	0.57	**0.18**	**6.11**	**standard deviation**
4.7	**3.4**	**66.50**	4.8	**3.8**	**69.80**	**minimum rate**
7.5	**4.3**	**91.40**	6.7	**4.4**	**90.30**	**maximum rate**

Table 2- Mean and standard deviation of performance indicators of Hajar training hospital before and after implementing health evolution plan

after implementing health evolution plan			before implementing health evolution plan			indicators
the number of Para clinic clients	the number of surgeries	Caesarian percent	the number of Para clinic clients	the number of surgeries	Caesarian percent	
34355	**187**	**52.59**	**26276**	**122**	**79.56**	**mean**
4575	**40**	**5.68**	**2718**	**32**	**4.41**	**standard deviation**
25259	**85**	**42.47**	**21585**	**58**	**47.00**	**minimum rate**
270	**72**	**110**	**32270**	**202**	**63.02**	**maximum rate**

Based on findings of table 1, data dispersion rate based on indicators of standard deviation and minimum and maximum rate for bed occupancy percent before and after implementing health system evolution plan has been relatively similar. This issue is also similar for average stay and bed turn rate.Data dispersion rate based on indicators of standard deviation and minimum and maximum rate for the number of surgeries and Caesarian percent to total child births was relatively similar.

On average, the number of Para clinic clients before implementing the plan were 26276 and after that 34355. The data dispersion rate based on indicators of standard deviation and minimum and maximum rate has been different and data dispersion for the number of Para clinic clients after implementing health evolution plan was more.

Based on findings of table2, on average the number of surgeries before implementing health evolution plan has been 122 and after that 187. On average, Caesarian percent to total child births before implementing the plan was 56.79 and after that was 52.59.

DISCUSSION

Bed occupancy percent before and after implementing health evolution plan hasn't changed. The results of the present study is not consistent with studies of Kasiri, Ferdosi,

Kouchaki, Mansour Ghenaei, Darzi, Anisi, Ghazizadeh, Tahmasbi and Al Davoud due to obtaining the result of significant increase of bed occupancy percent after implementing health evolution plan comparing before it.

Average stay of patients has decreased after implementing health evolution plan. In this regard, the results of the present study are not consistent with the study of Kochaki, Mansour Ghenaei, Ghazizadeh, Tahmasbi and Kasiri due to obtaining the result of increase in average stay indicator after implementing the plan comparing before it. But, the results of this study are consistent with study of Darzi, Anisi and Al Davoud due to obtaining the result of reduction in average stay after the plan implementation.

The number of surgeries has increased after implementing health evolution plan. The information obtained from the present study are not consistent with the study of Mansour Ghanei due to reduction of the number of surgeries after implementing health evolution plan. Yet, increase of the number of observed studies in this study is consistent with the study of Anisi, Tahmasbi and Faridfar.

Bed turn rate has increased before and after implementing health evolution plan. In this regard, the obtained results are consistent with the study of Ferdousi, Mansour Ghanei, Darzi, Anisi, Ghazizadeh, Al Davoud and Kasiri.

The number of Para clinic clients after implementing health evolution plan has increased comparing before it. The results of this study are not consistent with the results of Mansour Ghanei due to obtaining opposed results and on the other hand, for evaluating the impact of health evolution plan on the number of clients, the obtained results are consistent with the study of Kochaki, Anisi, Tahmasbi and Faridfar.

Caesarian percent to total child births after implementing the plan has reduced comparing before. In this regard, the results of the present study are consistent with the study of Zarei, Emamgholipour and Tahmasbi.

Generally, using services in the studied hospital has significantly increased comparing before the plan implementation. Sang study showed that health modifications in China caused promotion of villagers and townspeople health level and performance indicators such as equality, availability and quality have significantly increased.

CONCLUSION

The results of the study showed that bed occupancy percent after implementing health evolution plan comparing before has increased 10 % but this increase has not been statistically significant. The rate of bed turn after implementing health evolution has increased comparing before. The average of patients stay duration after implementing the plan has decreased. Regarding that indicators of bed occupancy factor is a function of average indicators of stay duration and bed turn and in an equal bed occupancy rate, the efficiency and performance of that system which have lower average stay and higher bed turn, is evaluated more positive and with increasing of false bed occupancy factor, we won't face resources loss. Attention to the obtained results from this research is exactly according to this trend, so with a level of bed occupancy factor, more patients have received services. Also, regarding that the number of Para clinic clients and the number of surgeries have increased after implementing health evolution plan, this result is obtained that the plan of health system evolution has been successful in achieving one of its goals, i.e. increase of accessibility rate and justice in receiving health services.

One of main goals of this plan in the package of natural child birth propagation program is to reduce Caesarian percent to 10 % of the base rate of this same year, that according to the obtained results in the performed study, Caesarian percent to total childbirths has reduced after the plan implementation comparing before that which is evaluated positive, but the reduction percent has not been according to the predicted goal and has a long distance with it which requires effort and planning based on research so that we could investigate this issue and achieve the optimal result. So it is suggested that necessary trainings are provided for pregnant mothers with the subject of natural child birth health and complications of Caesarian more seriously in public media. Providing warning clips, holding training classes and so on could be an effective help in this field. On the other hand, supporting mothers financially and spiritually could be effective in this respect.

Finally, we can conclude that the health system evolution plan is moving in the path of predicted goals, but there are some problems for complete realization of goals that suitable and appropriate interventions should be made in national and regional level and by suitable planning of infrastructures, either in respect of financial or spiritual resources, the expected results are obtained.

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