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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, 2supporting physicians persistence in deprived regions, 3- presence of specialized physicians resident in governmental hospitals, 4- promoting hoteling quality in governmental hospitals, 5promoting 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.

Tal	ole	1-	Mean	and	standard	deviation	of	performance	indicators	of	Hajar	training	hospital	before	and	after
im	olen	nen	ting h	ealth	evolutior	ı plan										

after evolut	impl tion pla	lementin n	g health	before health e	imp volution	indica	
bed rate	turn	avera ge stay	bed occupa ncy rate	bed turn rate	avera ge stay	bed occupan cy percent	tors
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 imp evolution pla	lementing n	health	before im evolution p	indica		
the number of Para clinic clients	the number of surgeri es	Caesa rian perce nt	the number of Para clinic clients	the number of surgeries	Caes arian perce nt	ators
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, Emangholipour 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. 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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REFERENCES

- 1. Majid Davari, economic challenges of Iran health system, health information management, North America, 2011
- 2. Khaieti, F, Godarzi, L, M eshkini, A, Khaki, A, the method of implementing sextet plans of health evolution system in point of view of supervision on treatment experts, national congress of 11th government in the health domain, Tehran, 2015
- 3. Farbod, Ebadi Fard Azar, Aziz Pour Reza, healthcare economy, Tehran, health path, 2011
- 4. Farid Gharibi, Ali Janati, Mohsen Farajollah Beik Noori, Behnam Amini, Daghalian (2015), examining the experiences of managers and nurses of Tabriz Taleghani Hospital in relation to health evolution system, Health Image, 1.1
- 5. Zahra, Mataneh, Lotfollah Moseli, the position of health information in new reform of healthcare system of US, health information management, 1(18) : 1-97, 101, 2011
- 6. Oliaei Manesh, A, Tabtabei, S, M, Mohammadi, A, Zangeneh, M, S, Gh, Abolfazl, S, F, performance of health insurance organizations in intersection cooperation between Ministry of health, treatment and medical training in effective implementation of health system evolution, national congress of 11th government criticism, Tehran, 2015
- 7. Mohammadi, M, could the future of evolution plan be predicted? , national congress of 11th government criticism, Tehran, 2015
- 8. Series of instructions of health system evolution plan, Ministry of health, treatment and medical training, 2014
- Mehdi Radabadi, Dr. Hossein Mobaraki, Aslan Nazari, Mohammad Bakhtiari, examining performance indicators after implementing information system in Sina hospital, Shahrekord medical sciences university, 15th period, 90-96. 2013
- 10. Frenk J, Gonzalez-Pier E, Gomez-Dantes O,Lezana MA, Knaul FM. Comprehensive Reform to Improve Health System Performance in Mexico.Lancet. 2006;368:1524-34
- 11. Riahi, M, Shojaiezadeh, Shojaiezadeh, N, Rahmani, K, hospitalized patients' satisfaction, reflection of health evolution plan, Farsan Seidoshohada Hospital, national congress of 11th government criticism, Tehran, 2015
- 12. Terminology of standards of national creditability of Iran hospitals, ministry of health, treatment and medical training, 2016
- 13. Kianoush Kasiri, Ahmadreza Reisi & Sanaz Ahmadi (2014), examining the role of implementing health evolution plan on efficiency indicator of Feiz Esfahan hospital before and after implementing this plan in 2014, 2nd international conference of managing challenges and approaches, Hamayesh Negar scientific congresses center, http://www.civilica.com/Paper-ICMM02-ICMM02_314.html
- 14. Ferdousi, Masoud, evaluating and comparing efficiency of Esfahan province hospital in years before and after implementing health system evolution plan (2012-2015), using Paben- Lasu model, national congress of health management with focus on evolution plan and health system evolution, Tabriz, 2016
- 15. Koucheki, Fatemeh, the impact of implementing health evolution plan on statistical- clinical Para clinical indicators and surgery in Agh Ghela Al Jalil hospital from 2012 to 2015, national congress of health management with focus on evolution plan and health system performance, Tabriz, 2016
- 16. Mansour Ghenaei, Sara, the impact of health evolution plan on performance indicators in Rasht Poursina hospital in 2016, national congress of health management with focus on evolution plan and health system evolution, Tabriz 2016
- 17. Darzi, Fatemeh, the impact of health evolution plan on key indicators of Ghazvin Shahid Rajaie hospital performance, national congress of health management with focus on evolution plan and health system performance, Tabriz 2016
- 18. Anisi, Somayeh, evaluating the impact of health evolution plan implementation on performance indicators of Shahid Beheshti medical sciences university, national congress of health management with focus on evolution plan and health system performance, Tabriz 2016
- 19. Ghazi zadeh, Javid, examining the impact of health system evolution plan implementation on performance indicators of hospitals affiliated to healthcare system of Eastern Azarbayjan, national congress of health management with focus on evolution plan and health system performance, Tabriz 2016

- 20. Tahmasbi, Ali, evaluating performance and financial indicators of research training center of Raoul Akram of Tehran before and after health system evolution, national congress of health management with focus on evolution plan and health system performance, Tabriz 2016
- 21. Al Davoud, Seyed Amir, examining the impact of health system evolution implementation on the most important performance indicators of the state east cancer specialized hospital in Mashhad (Omid Hospita), national congress of health management with focus on evolution plan and health system performance, Tabriz 2016
- 22. Zarei, Ehsan, the rate of achieving goals of natural child birth promotion plan in health system evolution plan: case study in a great public hospital of Tehran city, national congress of health management with focus on evolution plan and health system performance, Tabriz 2016
- 23. Emampholi Pour, Sara, the impact of health evolution system on consequent indicators in hospitals affiliated to Tehran medical sciences universities, national congress of health management with focus on evolution plan and health system performance, Tabriz 2016
- 24. Faridfar, Niloufar, the impact of health system evolution plan implementation on Clinical, Para clinical, surgery indicators and also patients satisfaction level in training, research and treatment complex of Rasoul Akram in 2013-2014, national congress of health management with focus on evolution plan and health system performance, Tabriz 2016
- 25. Ang S, Wang Z, Yu C. Evaluation of Health Care System Reform in Hubei Province China. Int JEnviron Res Public Health 2014;11: 2262-77