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An overview of the opportunities the presence of specialist doctors resident in hospitals

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ABSTRACT

Attention to the functions and pattern organized staff are important to achieve organizational goals, especially for hospitals that are one of the important components into account an element in improving the health system and providing a fair field of utilization of health intervention. So this study was to review the opportunities of presence resident doctors in hospitals based on the instructions of the health system reform plan. This is a narrative review that returning to the site of the Persian (Magiran, Irandoc, Google Scholar, Iranmedex, SID) and English (PubMed, Scopus, EMBASE and Sciencedirect) and also library studies with keywords (physicians, resident physicians, health equity, project development, opportunity specialist and human resources) and the English word for them in this area and the 30 related articles was extracted. Given the evidence may not be fully implemented in all government hospitals because of problems such as the lack of doctors in public hospitals or other administrative problems, but it can be said that is one of the best model to achieve better clinical outcomes in hospitals. In order to solve problems, there is the need to design and create the appropriate environment for the successful implementation plan, or create an ideal environment for the implementation of evidence-based medicine moved.

Keywords: Health System, Hospital, Reform, Residents
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INTRODUCTION

Human resource is among the most basic health care services. Manpower planning in a suitable way is the most effective, efficient and acceptable action which will facilitate the way of gaining fair and optimal health care, if staff used properly.[1]

Human resources, especially in professional careers as the motivation force of organizational strategic plans and is considered as most important competitive advantage of organizations.[2,3]

According to the importance of human resources in the way of achieving the organization's goals and especially hospitals as an important key in improving the health system, attention to the performance and organizational of staff is important.[4] Lack of adequate financial and human resources on the one hand and the ever-increasing complexity of health on the other hand, supply, maintenance and promotion of health in different communities faced them with significant challenges which pointed out to the need of attention to this important issue for everyone, especially policy makers and relevant officials.[5]

Today's need of presence of professional doctors in the governmental hospitals is a concern for health system administrators of supplying Human Resources. Response to this need in hospitals was in form of increasing the hours of access to doctors and health professionals.[6] The task of this group of doctors even more specialized knowledge and skills, is the primary task of "use all resources and knowledge in order to protect patients from harm and injustice".[7] Early diagnosis and every moment treatment increases the survival of patient which this action requires continuous presence of a physician, and appropriate management practices in the sector.[8] Accordingly a plan with title of "reforming health care" on Jun 2014 was carried out in the country and one of the main pillars of that as instruction number three have been proposed. Schedule of professional doctors who are resident in the Ministry Health and Medical Educations hospitals.

This part of reforming program with the aim of benefiting at time to people of health services through the constant presence of professional doctors in the hospitals which are dependent to the Ministry of Health and Medical Education in order to achieve the objectives of providing timely health care, answering 24-hour hospital medical / hospital, determining imposition of patient by the relevant specialist in emergency room in the shortest possible time, on time visits of patients,

surgeries and emergency procedures and increase public satisfaction.[9]

Doctors have sufficient skills to treat urgent patients and also there is early access to them in order to identify problems and treat patients likely will prevent many deaths. Presence of resident doctors also could be a better use of resources since reduce unnecessary reception and will prevent the complexity which cause the prolonged stay and finally will create the Opportunities to accelerate the discharge of patients.[10] Systematic review by Pronovost et al (2002) on the medical intensive care unit showed that high density of personnel compared with low density personnel improved hospital mortality and length of stay in the intensive care unit and hospital decreased.[11]

Also Gajic et al (2008) in their study found that presence of 24 hours of medical personnel in the Intensive Care Unit causes improvement in the process of care, staff satisfaction, reduce the rate of complaints and also reduce the length of stay in hospital compared with the use of personnel on call.[12]

Ghazimirsaeed et al (2015) in his research under studied the distribution of professional resource in Tehran University of Medical Sciences hospital and showed that the majority of hospitals are facing with shortage of manpower and distribution of them in hospitals did not follow a specific model.[13]

Sort of hospitals medical personnel is a topic which despite of its importance in Clinical and economical health results still have not been studied scientifically in the country. Now with regard to changes in healthcare organization and the way of financing and provision of services is taking place, Understanding the effects of health care organizations feature such as arranging human medical resource and nursing on outcomes of these organizations is very important. Therefore, this study is done with the aim of review studies about impact of types of medical personnel sort and chance of presence resident doctors in the hospital.

MATERIAL AND METHODS

Current study was conducted in the first half of 2015. First with regard to the purpose of the study, keywords were chosen. To find studies and related reports with time of resident professional doctors in hospitals we used databases such as Google Scholar, SID, Pub Med, Scopus, EMBASE and Science Direct. Searching English articles from 1995 to 2015 and Persian articles from 1374 to 1394 were done by using key words of Specialists residents, specialist physicians employed, House physician and Opportunities of presence specialist. Finally, about 68 articles were found. Of these, in first step articles which not related with title of research, duplicates, extracted finding from conferences and seminars (27 articles and in second step the articles that were in other than English and Farsi languages (11 articles) were excluded from our study. Finally, 30 articles related in the field of research topic were reviewed and used.

Only articles which review the situation of sorting medical personnel was studied and then situation of presence specialist residents has been discussed.

Sorting medical personnel in hospitals for night shift could be either on call (consultation) and residents. Due to the sensitivity of doctors and the importance of time especially about determination task of emergency patients and high risk either in emergency or in the special section applying correct policy in this area is necessary. Current study discussed about studies which compared two mentioned algorithms. To compare these two methods, we can use common criteria or clinical consequential indicators.

Criterion which is often used for comparing different situation of medical personnel include hospital mortality rates and length of patient stay and to somehow costs, level of discharge and new reception are common. Several studies have shown that arrangement of medical workers in the special department cause to improve clinical outcome.[14]

In traditional system evaluating clinical result of caring mainly focused on hospital mortality, although many patients survive from severe conditions. As well as other clinical measures, such as length of stay and quality of life have priority.[15]

A study from Tofighi et al as distribution of physician and beds in Iranian state hospital during 2001-2006 showed that despite the difference in the proportion of specialist manpower and the number of beds to population among the provinces, fair distribution of specialists in government hospitals have been used by Gini coefficient.[16]

Finding 's of Ghazimirsaeed and et al under title of investigating distribution of specialist in Tehran University of Medical Sciences in 2014 showed that the majority of hospitals are facing with shortage of human resources, distribution of people in these hospitals did not follow a specific model and this affair is more influenced by circulars and ministerial guidelines.[13]

The presence of physicians in hospitals, with the aim of increasing 24-hour accountability in medical care center and ensuring appropriate health care

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Table 1 Categorized studies based on research's goal

Title of Article	Author	Year	Type of Article	Result
Patterns of sorting medical personnel and medical results in emergency patient	Peter J. Pronovost et al	2002	Systematic review	Sorting of medical personnel in ICU unites showed that sorting with high density (resident specialist) comparing with low density (optional consultation) improved mortality in ICU and hospital and reduced hospitalization of patient.[23]
The effect of 24 hour presence of specialist in ICU comparing with on call specialist on long-term survival and quality of life of emergency patients in ICU of an educational hospital	Martin Reriani et al	2012	Comparing before and after	The definition of an extra shift at night for providing resident doctors do not affect patient's long-term survival.[14]
The effect of 24 hours' presence of specialist of ICU compared with on call specialist on quality of life and family satisfaction and provider in ICU unite of educational hospital	Gajic O et al	2008	Comparing before and after	Having 24-hour resident specialist in ICU unite can improve process of caring and personnel satisfaction and also reduced complaint rates and length of stay in ICU and the hospital.[12]
Sort of medical and nursing staff and its impact on mortality in ICU unit: an observational study	Elizabeth West et al	2014	Observational-cross over	After controlling patient characteristics and workload of unites results showed that more proportion of nurses to beds and also more number of medical consultants was alone with higher survival rates. number of nurses had the greatest impact on high risk patient.[24]
Resident specialist in night shift and timing of death in ICU patient	Lora A Reineck et al	2013	cohort	In patient of ICU presence of resident doctor caused diminishing distance between recipient until death of ICU patients and also reduced risk of death during the night.[25]
Model laying out medical personnel and safety of patient in ICU	Gajic and et al	2009	Systematic review	Studies showed positive effect of the presence of doctors on clinical result of patient but this presence will not lead to better result unless you create ideal organizational environment for medical performance based on evidence.[22]
Discussing about distribution of specialist man power in hospitals of Tehran University of Medical Sciences	Mirsaeed and et al	2013	descriptive	Most of hospitals have been faced with shortage of human resource and its distribution in hospitals do not follow specific model.[13]

services per hour, according to hospital recipient and hospital grading is done.

The study of Mahoori et al. in year 2005 about role of the anesthesiologist resident physician in decreasing mortality of ICU in the city of Orumieh, through examining two groups of patient records for two consecutive years in the first year resident doctor is absent but in the second year resident physician in the hospital present, showed however, in term of patient gender percent, reason for referral was not significant but mortality rate in corresponding month decreased from 38/8 percent in first year to 69/9 percent in second year which this decreased was not statistically significant. Although average number of patient in second year was more that first year but at the same time, the average length of stay has decreased from 3 to 5.2 days.[17]

In similar study by Kabirizade et al in Sari discussed about effect of resident anesthesiologist on mortality rate of patient in ICU similar results are obtained. Total hospitalization period of patient decreased from 14 to 11 days and mortality rate of patient decreased from 24 to 14 percent. Also there are significant correlations between age and death, age and cause of death and at the end cause of death with referred service.[10]

Result of systematic review of Cary and et al in 2007 about Patterns of physicians in nursing homes literature of research showed that presence of resident doctors and by greater physicians with better outcome in different index will be along. This outcome includes shorter length of hospitalization, better cost-effectiveness of medical personnel (With less unnecessary prescriptions and on time

diagnoses), suitable communication of treatment cadre and finally higher satisfaction for patient.[18]

In another systematic research which was done by Wilcox et al in 2013 on impact of sorting medical specialist personnel of ICU in hospital mortality, results showed that lower mortality in hospital and also ICU unite with high density of specialist ICU personnel (specialist resident) and also significant decrease in length of hospitalization and also ICU unite.[19]

A similar study which is done by Kerlin and et al in form of controlled clinical trial in 2013, showed that there wasn't seen any significant difference between mortality rate and length of hospitalization of two recipient patient with resident and nonresident specialist.[21]

Result of systematic study of Ganjic and et al in 2009 revealed that although studies show the positive impact of the presence of resident doctors in the clinical outcomes of patients, but this will not lead to better results, except by creating an ideal organizational environment is for the implementation of evidence-based medicine.[22]

RESULTS

Health care reform plan was a framework for health system which was performed with aim of resolving the main problems of the health system. This study was done with aim of overview the opportunities of resident physicians in hospitals according to the instructions of healthcare reforming plan.

Despite challenging resident physicians mentioned by the studies, several studies also have shown that a high density of medical personnel (resident and required the presence of a doctor) can improve clinical outcomes of patients in hospitals, especially in the special unites.[26-29] With regard to the implementation of healthcare reform by the Ministry of Health and Medical Education and initiation of specialist doctors stay in the hospital although may not be fully preformed in all governmental hospital due to problems such as lack of doctors in hospital and administrative problems, but we can say that it will be one of the best models for achieving better clinical results in the hospitals. Because one of the advantages of this plan is forcing hospital for having require major specialist of hospital that in correct implementation it will be very affective. Although hospitals still facing with problem of having some specialist especially in the evening and night shifts.[30]

In order to resolve these problems, we move through improve management of healthcare centers and using managerial labor force, more Participation of doctors in the project, serious monitoring on valid performing of project by the public authorities, particularly on the performance and quality of work of resident physicians, increasing their motivation for servicing with more quality and creating proper situation for successful implementation of the project or creating an ideal sitting for medical implementation based on evidence.

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