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## AN OVERVIEW OF THE DISTRIBUTION AND ADEQUACY OF HUMAN RESOURCES WORKING IN HOSPITALS

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### ABSTRACT

Providing human resources is one of the most important factors in achieving the goals of the organization. Human resources are considered the most valuable factor in production and service provision. Shortages and surpluses of human resources can be effective in reducing the quality of providing services to patients. This research was done to investigate the human resources situation of hospitals. The results obtained from the studies conducted on the studied hospitals show that many hospitals are facing a shortage and inappropriate distribution of medical manpower, especially nursing and medical, the manpower of support, administrative, and financial units. No specific deficiency was observed in para-clinics and paramedics. Correct management and planning of human resources about compensating personnel shortages and bringing it to the standard level can increase the efficiency and effectiveness of hospital activities. In general, in hospitals, and especially in hospitals where the capacity of hospital beds is not used properly and the average occupancy of hospital beds is low, the hospital management uses fewer human resources and sometimes with inappropriate arrangement, which is an irreparable loss, and many facilities and capacities of hospitals for which large investments have been made remain intact.

**Keywords:** Human resources, Hospitals, Nursing, Medical.

### INTRODUCTION

Today, human resources are recognized as a strategic factor in the organization. Experts in management science have paid increasing attention to the role and influence of human resources on other key factors of organizational productivity (Herman & Renz, 2008). The role of human resources in the field of health has received more and more attention in the first decade of the 21st century, and the World Health Organization has focused its attention on human resources in the last decade in its 2006 report (Anonymous, 2006). In the health sector, human power is considered one of the most important resources and capital, and shortages and surpluses cannot reduce the quality of providing services to patients (Sadeghifar *et al.*, 2011). The development of countries and organizations is related to creativity and innovation in the development of human resources, and this need is felt more in healthcare organizations that are responsible for the mission of maintaining and improving the health of society (Sadeghifar *et al.*, 2011). Hospitals produce and supply healthcare services to society from the combination of various factors of employees, equipment, and consumables, and among the various components of the

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health system, hospital services are the main factor in the growth of costs (O'Reilly *et al.*, 2012). It should be noted that the situation of human resources is different according to countries. Several countries are facing a shortage of a group of doctors and healthcare specialists, and on the other hand, several countries are facing an adequate supply or surplus of these specialized groups (Imani *et al.*, 2012).

The global average number of nurses and midwives per ten thousand population is 280, and this figure in the six regions of the World Health Organization is 68 in Europe, 55 in America, 21 in the Western Pacific, and 21 in the Eastern Mediterranean (Hwang & Oh, 2021; McClurg *et al.*, 2021). 14 people in Southeast Asia and 11 people in Africa have been reported (World Health Organization, 2009). Although the global health system is increasingly confronted with the challenge of blue manpower and inequitable skill distribution, recent efforts to develop human resources policies in the health system, which are primarily guided by the relevant World Health Organization, frequently focus on developing countries (Anonymous, 2011). Mendez *et al.* stated in a study titled "Human Resources Challenges in Health" that human resources in healthcare systems, including hospitals, play a critical role in reforming the management structure of healthcare centers so that employees with a commitment to a favorable organization improve the performance of medical centers in providing health and medical care (Méndez & Torres, 2010). Jamel *et al.* in a study titled "Review of Hospital Human Resource Management" reported the unfavorable situation of human resource distribution in different departments of private and public hospitals (Jamel *et al.*, 2010). Sadeghi Far *et al.* and Arab *et al.* stated in their studies that the situation and distribution of inappropriate human resources in different units of the country's hospitals are evident (Arab *et al.*, 2011; Sadeghifar *et al.*, 2011). Given that human resources are one of the most crucial elements in advancing and enhancing the hospital's ability to provide healthcare services to the public as well as in establishing appropriate hospital functions, it is essential that the government allocate and measure human resources in private hospitals in a uniform manner. Given the significance of this study, it aims to investigate the most recent state of hospital human resources.



## RESULTS AND DISCUSSION

The research conducted on the human resources situation in hospitals shows that there is a shortage of medical personnel, including doctors and nurses, as well as a shortage of nursing personnel in active beds in many Iranian hospitals (Farajzadeh *et al.*, 2006; Shahabi *et al.*, 2010; NooriHekmat *et al.*, 2014). Findings Previous studies also reported the lack of nursing manpower in hospitals, and to compensate for this shortage, patients and their assistants were used instead of trained nurses, which hurt the quality of services (Akbari *et al.*, 2011; Arab *et al.*, 2011). The distribution of nursing staff in the conducted surveys indicates a lack of proper distribution in Iran; thus, in terms of the distribution of nurses among the population, the highest number is related to Semnan province, and the lowest number is related to Hamadan, Kohkiluyeh, and Boyer Ahmad provinces, Golestan, and Sistan and Baluchistan. The majority of studies reported a lack of doctors, particularly a lack of specialist doctors in government hospitals, as well as a disparity in the distribution of medical staff in the country's hospitals (Shahabi *et al.*, 2010; Akbari *et al.*, 2011; Taati Kelley *et al.*, 2012).

The previous findings in the study of the distribution of specialist doctors in the country determined that Semnan and Isfahan provinces have the highest number, and Golestan, Kohkiluyeh, Boyer-Ahmad, South Khorasan, and Sistan-Baluchistan provinces have the lowest number of specialist doctors compared to the population (Abolhalaj *et al.*, 2010). The examination of the distribution index of specialist doctors in Iran's government hospitals showed that the highest and lowest index of doctors in specialized fields in the provinces of the country were, respectively, Yazd province with an index of 19.22 and Sistan and Baluchistan province with an index of 8.8 (Taati Keley *et al.*, 2012). The findings of the studies after examining the various clinical, paraclinical, service, maintenance, technical support, and administrative departments of the studied hospitals showed that about 19% of the units are by the standard, 17% are higher, and about 64% of the units are less than the personnel standard. The Ministry of Health has the strength (Akbari *et al.*, 2012). The findings of previous studies, unlike other studies, expressed the high density of hospital support and administrative staff compared to medical staff, so that except for a few support and paraclinical units, the majority of hospitals in the country were facing an increase in the volume of staff (Abolhalaj *et al.*, 2010; Mousaali *et al.*, 2010).

In the children's medical center of Tehran University of Medical Sciences, to estimate the manpower of the hospital's reception unit, the method of measuring the time of activities was used. It is to upgrade the technology level of the unit and also to increase the number of manpower (Nishiura *et al.*, 2004). The studies conducted in Thailand (Kittidilokkul & Tangcharoensathien, 1997; Nishiura *et al.*, 2004) were faced with the inappropriate distribution of specialized human resources, including doctors, and the lack of qualified and specialized personnel in private hospitals (Masanotti *et al.*, 2021; Rakhshan *et al.*, 2021). Studies conducted in private hospitals in Lebanon and Japan indicated a shortage of medical staff, including nurses, in private hospitals (Katori *et al.*, 2002; Jamal *et al.*, 2010), and hospitals in Turkey are faced with a shortage of nursing and doctor staff and a surplus of radiology and laboratory science staff (Ozcan & Hornby, 1999). In the studies conducted in different ways, in general, the lack of human resources in hospitals is evident, especially in the treatment sector, and it indicates the gap between the current situation and the optimal and standard human resources in the healthcare sector (Basiri, 2001; Dargahi *et al.*, 2013).

Balanced and proportional distribution of resources, especially human resources specialized in the health and treatment sector, is one of the factors that improve health indicators and, as a result, increase equality and social justice (Mostafavi *et al.*, 2015). The situation of the distribution and adequacy of the medical staff, including specialist doctors and nurses, in Iran, especially in remote areas, is very noticeable, which was mentioned by the majority of articles (Farajzadeh *et al.*, 2006; Shahabi *et al.*, 2010; NooriHekmat *et al.*, 2014). Various reasons were stated in the studies in this field, which include the insufficient number of specialist doctors, the lack of comfortable facilities for living in deprived areas, the way wages are paid, the limited acceptance in some specialized fields in the country (Akbari *et al.*, 2011), and among the components The causes of asymmetric distribution are usually the level of education, economic status, gender, and geography, which are considered very important factors (Wahlbeck *et al.*, 2008; Vujicic *et al.*, 2009). In the countries of Albania and Greece (Theodorakis & Mantzavinis, 2005), Taiwan (Huang & Chang, 2001), Japan, and the United States (Matsumoto *et al.*, 2010),



there is no distribution of specialist doctors according to the population (Uzun & Karataş, 2022; Yoong *et al.*, 2022; Zhang *et al.*, 2022). The Ministry of Health, Medicine, and Medical Education can take appropriate measures, including adopting management measures such as fulfilling the legal obligations of graduates based on their place of birth, paying special sums to serve in disadvantaged areas, sending specialist doctors to disadvantaged areas, and accurately identifying cities in need (Alhamdany & Alfahad, 2021; Saada *et al.*, 2023; Perwitasari *et al.*, 2023). In each province, take an effective step toward the proper distribution of specialized human resources (Taati Kelley *et al.*, 2012). In the conducted research, there were limited studies that reported the situation of inappropriate distribution of general practitioners in Iran (Haghdoost *et al.*, 2010). In Iran, in recent years, with the expansion of medical sciences universities across the country, major cities in different provinces have taken effective steps to accept medical students, which can help in the adequacy of the human resources of general practitioners in the country's hospitals (Dargahi *et al.*, 2013). The index of the current status of human resources in Iran's hospitals (doctors, nurses, and paramedics) is close to Turkey, South Korea, and Japan in terms of quantity, but there is a significant gap with advanced countries such as the United States, Sweden, the Netherlands, and Belgium (Haghdoost *et al.*, 2010). Various studies have stated that there is a shortage of nursing staff in hospital beds, which is not by the standard of the Ministry of Health (Farajzadeh *et al.*, 2006; Shahabi *et al.*, 2010; Akbari *et al.*, 2011).

The global standard for the ratio of nurses to beds is 3 nurses per bed. However, in Iran's public hospitals, it is 0.9 per bed, which is even less than one person per bed (Ministry of Health and Medical Education). According to the findings of the studies conducted in Japan, England (Horev *et al.*, 2004), and China (Matsumoto *et al.*, 2010), the situation of the nursing workforce in terms of quantity is close to the international standard of 2.6 nurses per bed, but the distribution of nursing staff in hospitals is unfair in different regions. Since the most important factor in improving the quality of performance in organizations is sufficient human power, standardizing the number and composition of nursing staff in medical centers can be an effective step in the satisfaction of patients, clients, and nursing personnel. Research studies showed that Iran's hospitals do not face a shortage of personnel in terms of other human resources such as administrative, support, financial, and service forces; para-clinical forces; and paramedics (Haghdoost *et al.*, 2010; Mousaali *et al.*, 2010; Arab *et al.*, 2011; Taati Kelley *et al.*, 2012). One of the limitations of the studies conducted in Iran was the absence of a study related to the distribution and quantity of human resources (therapeutic and non-therapeutic) in private hospitals. Also, one of the other limitations and weaknesses of this study was the lack of access to some documents and reports of government organizations in domestic and foreign countries. The insufficiency of the number of articles on different human resources made it impossible to evaluate the human resources situation from different dimensions.

## CONCLUSION

Based on the findings of the research, it was found that the studied hospitals do not have a homogeneous distribution of human resources. In some units, despite the density of manpower in some positions (such as laboratory sciences, operating room radiology, intelligence, and midwifery), positions such as medicine and nursing have a severe lack of manpower, which



affects the quality of services provided. Hospital activities will be more efficient and effective if plans are made to compensate for personnel shortages, bring hospital departments up to standard personnel levels, and provide department managers with the training they need in conjunction with proper human resource management and planning. In general, hospital management uses fewer human resources and occasionally arranges them inappropriately, which is an irreversible loss. Many hospital facilities and capacities for which significant investments have been made remain intact, but this is especially true in hospitals where the average occupancy of hospital beds is low and the capacity of hospital beds is not used properly.


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