

Survey of the Necessary Manpower for the Hospitals of Ahwaz University of Medical Sciences in According with Personnel Standards and Criteria of Ministry of Health and Medical Education

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Abstract: Healthcare workers planning must be as the main part of health sector planning. Manpower is considered as the most important part of hospital fund and resources. It lack and surplus can effect on quality of patients care. This study accomplished to estimation of the necessary manpower for the mentioned Hospitals in Accordance with the Personnel Criteria and Standards of the Ministry of Health to compare it with existing status and calculation of organizational dislocation. This research is a cross sectional study which carried out in the teaching Hospitals of Ahwaz University of Medical Sciences (Emam Khomeini and Razi Hospitals). Questionnaire was used and it was referred to different wards of the mentioned hospitals and medicine assistance office of university is used for gathering data. Results obtained from the estimations and comparing them with existing state shows: In Razi Hospital: only 2 wards out of 25 different wards of hospitals; that is, 8 percent of manpower were matched to Ministry of Health standard and 4 wards; that is, 16 percent of manpower were higher than standard and other wards; that is, 19 wards of were in lower standard; that is, 76 percent of the whole. Dislocation percent is 4.16 in this hospital. In Emam khomeini Hospital: only 2 wards out of 37 different wards of hospitals; that is, 5.40 percent of manpower were matched to Ministry of Health standard and 5 wards; that is, 13.51 percent of manpower were higher than standard and other wards; that is, 30 wards of were in lower standard; that is, 81.08 percent of the whole. Dislocation percent is 4.16 in this hospital. Planning in relation to compensating lack of personnel and achieving hospitals manpower to standard level of personnel, providing an adequate education program for heads of wards in relation to the management and proper planning of manpower in hospital wards would lead to an increase in the efficiency and effectiveness of hospitals activities.

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1. Introduction

Human resource planning forecast supply and demand future of the organization for the employees. To ensure the number and type of employee who are required, human resource unit can attract, select, training and career planning and other activities to make better investment. Human resource planning is a management process that includes analysis of organization's human resource needed in diverse conditions and explanation of policies and systems to meet that needs. Policies and strategies related to staff that working in health sector are directly important for all of the employees in this system. Human resource policy has impact on supply and demand for employee in the health care sector. Since operating systems are performed by humans, so it can be claimed that the most important capital for organizations are human resources (AbuAlaee and Ghafadi 2005). In the recent years, attention to human resources allocated a large part of time and investment in the progressive organizations. The expert managers know there is a direct relation between investment in development and promotion of human resources with the success,

efficiency and competitive advantage in the organizations. With respect to hospital rules and standards with correct management, will increase the effectiveness and efficiency of hospital services. The importance of human resources in providing services is undeniable and without adequate and trained employee, hospital activities will be disrupted. Indeed appropriate combination of physician with required expertise, nurses, technicians, licensed practical and etc. Have a critical role in the optimum flow of hospital services (Farzam and Sharifi 1997).

Disproportion Staffs with the current facilities and capacity, failure to equip and optimize human resources are considered as the major causes of inefficiency of hospitals performance, which shows the necessity of revising and reforming the structure for purpose of the least disproportion. Manpower is considered as the main resources and capital for the hospitals, their shortage and surplus can be effective to decreasing quality of patients' services. Shortage of manpower and disproportion of them are caused to most of hospitals problems. Medical and paramedical staffs are more than 70 percent of the hospital

manpower. Around 65 to 70 percent of the hospital recurrent costs are allocated to this group (MOH report 1999).

Estimating future manpower requirement has a vital aspect for organizations who training manpower, especially in cases where it takes long time and the cost is high. In addition to maintaining and promoting the quality of education, also establishing job security, having accurate information about number of required manpower according to present status of society can be primary step for efficient and effective planning (Ruzbahani 1996). This study accomplished to estimation of the necessary manpower for the mentioned Hospitals in Accordance with the Personnel Criteria and Standards of the Ministry of Health to compare it with existing status on one hand and calculation of organizational dislocation. This study was a step toward standardization of hospital staff at Emam khomeiny and Razi hospital and it was showed the lack and surplus of the manpower, is determined this lack and surplus according to job row. Finally, it was known for each hospital to what extent is differ from the Ministry of health standards. Also organizational dislocation (for those who their employment is incompatible with their current post) was calculated.

2. Material and Methods

This research was a cross sectional study which accomplished in the teaching Hospitals of Ahwaz University of Medical Sciences (Emam Khomeini and Razi Hospitals). Using universal sampling method, which is all the heads of wards, laboratory, radiology, pharmacy, operating rooms, emergency, clinics, admin unit, finance unit, medical records, CSR and Landry were selected. Data were collected using a well-structured, self-administered questionnaire and interviewing with the head of each unit. In this study, 5 kind of questionnaire was used (A set of employment lows and regulation 2001; Criteria & Standards for personnel 2005). 1) A questionnaire related to the clinical and para-clinical units, which

completed by the head of each units and current situation of the unit determined, 2) a questionnaire related to medical record department, for determining hospital wards activity, bed occupancy rate of each wards, number of beds of each wards and average length of stay of each wards 3) a questionnaire related to admin unit which was about the current number of staff in this unit, 4) a questionnaire related to finance unit which was about the current number of staff in this unit, and 5) a questionnaire related to head of recruitment which was designed to determine the present status and structure of hospital staff.

Then the collected data were compared with the standard personnel information of Ministry of Health. Data was analysed by simple and compound empty tables.

3. Results

Emam Khomeiny Hospital has 570 beds, from them 500 beds are active. This is general teaching hospital which has 25 active wards, 78% bed occupancy rate and the average length of stay is 4 days. It has 710 approved staff rows that are occupied by 408 and 302 organizational rows have been vacant.

According to the estimation was done and compare it with the current situation, 30 of 37 unit (81.08%) of this hospital was less than manpower standard of Ministry of Health. 5 of 37 unit(13.51%) are more than standards and just 2 of 37unit (5.40%) are accordance with the Ministry of Health standards. A total of 30 units of Emam Khomeini Hospital which are less than manpower standard, 5 unit (17%) need staff between 1-5, 5 unit (17%) need staff between 6-10, 5 unit (17%) need staff between 11-15, 5 unit (17%) need staff between 16-20 and 10 units (34%) require more than 20 staff to reach the manpower standard of Ministry of Health. Emergency, surgical ICU, neonatal, heart ICU, dialysis, operation room, angiography, maternity, maintenance and admin unit require more than 20 staff to reach the standards. Nursing group (nurses, practical nurses and nurse aid) are the most needed staff rows.

Table 1. Percentage of the wards according to Ministry of Health standard in each hospital

Number of wards	Emam Khomeini Hospital N(%)	Razi Hospital N (%)
Standard	2 (5.4)	2 (8)
More than standard	5 (13.5)	4 (16)
Less than standard	30 (81.08)	19 (76)

Razi Hospital has 200 beds which all of them are active. This is general teaching hospital which has 9 active wards, 80% bed occupancy rate and the average length of stay is 3 days. It has 325 approved staff rows that are occupied by 207 and 118 organizational rows have been vacant. Nursing group (nurses, practical nurses and nurse aid) are the most needed staff rows

where as a total of 187 approved staff rows just 127 is occupied and 60 posts have been vacant. The proportion of approved staff rows to bed for the nursing group is 0.94 while the proportion of occupied staff rows to bed is just 0.63.

According to the estimation was done and compare it with the current situation, 19 of 25 unit

(76%) of this hospital was less than manpower standard of Ministry of Health. 4 of 25 unit(16%) are more than standards and just 2 of 25 unit (8%) are accordance with the Ministry of Health standards. A total of 19 units of Razi Hospital which are less than manpower standard, 9 unit (47%) need staff between 1-5, 3 unit (15%) need staff between 6-10, 4 unit

(23%) need staff between 11-15, 1 unit (5%) need staff between 16-20 and 2 units (34%) require more than 20 staff to reach the manpower standard of Ministry of Health. Emergency and maternity ward need more than 20 staff to reach the manpower standard of Ministry of Health.

Table 2. Number and type of staff in which organizational row was not matched with their current post in Razi hospital

Current post	Organizational row	Number (person)
Nurse	Midwife	2
Head of clinics	Midwife	1
Nurse aid	Maintenance	1
Anesthesiology technician	Nurse	4
Director of medicine store	Nurse	1
Operator distribution of medical devices	Nurse aid	1
Laboratory secretary	Practical nurse	1
Operator of admission and information	Nurse aid	1
Archivist	Accountant	1
Director of staffing	Accountant	1
Director of maintenance services	Nurse aid	1
Director of logistics warehouse	Nurse aid	1
Director of secretariat	Nurse	1
Sum		17

The percentage of dislocation was 4.16 percent for both of hospitals. Table 2 shows number and type of manpower which organizational row was not matched with their current post.

Table 3. Number and type of staff in which organizational row was not matched with their current post in Emam Khomeini hospital

Current post	Organizational row	Number (person)
Nurse	Midwife	11
Secretor	Nurse aid	5
Secretor	Nurse	1
Nurse aid	Maintenance	1
Secretor	Psychologist	3
Operation room technician	Nurse	6
Operation room technician	midwife	3
Admission operator	Nutritionist	1
Admission operator	Education expert	1
Admission operator	Psychologist	1
Admission operator	Psychologist	1
Medical record archivist	Supplier	1
Anesthesiology technician	Nurse	3
Staffing	Library staff	1
Sum		39

4. Discussions

This study found that a total of 62 wards of hospitals only 4 wards were according to the manpower standards. This finding consistent with the results of the study by Sadeghi Far (2006) in two teaching hospitals was showed that just 3 wards of the

total of 44 wards, was standard. This study showed 9 wards of selected hospitals were more than standards (14.5%). Also, the study by Moemeni (2006) in Tajrish Hospital in Tehran found a total of 26 wards of hospital 5 wards more than standard (19.2%). However, the study by Sadeghi Far (2005) reported

only 6.8 percent of wards was more than standards. Unfortunately, in this study a total of 62 wards 49 were less than manpower standards (79%). However the results of the study by Sadeghi Far (2005) showed 97 percent of the wards was less than standards. Moemeni (2005) was also found that a total of 26 wards 80 percent was less than man power standards.

Manpower has been recognized as the major health policy issue in Canada. However, argue over manpower have continued to be based on the implicit assumption of fixed coefficients of production. For instance the Registered Nurses Association of Ontario and the Registered Practical Nurses Association of Ontario estimated that between 60000 and 90000 new recruits would be needed for nursing in Ontario by 2001. Also, the Canadian Health Service Research Foundation found the failure to increase the supply of nurses in line with the increase in the size of the population as a important problem for nurses workforces (Birch et al. 2004).

In order to more meaningful estimate of future requirements for human resources, decision-makers need to pay greater attention to the current plans and developments in the production and delivery of healthcare, as well as to the continuing developments in the levels and distribution of needs in population (Birch et al. 2004).

Manpower resources are the most important part of healthcare systems because the utilization of health technologies in management and provision of services to promote health level, are undertook to this part of health care system. Personnel cost is usually between 60-80 percent of total recurrent cost in health care system. Therefore, considering to the nature of this part, don't attention to the required number of manpower in the hospital wards, in addition to adverse affect on the health of society, also it effect the efficiency and effectiveness of the services. Nursing shortage cause to stunt of reaching to global goals of healthcare systems and then the needs of people are not met. Labor shortage cause to the inappropriate manpower, stress due to workload to nurses, declining occupational status and nursing low productivity, while nurses can support patients, if they have had an enough support. Nursing shortage is one of the serious challenges for the healthcare system. Currently, Iran have only one third of global standards for nursing manpower. In the world, normally there is 2 nurses per bed, sometimes for intensive bed there is 6-8 nurse, while in Iran, there is around 0.8-0.9 nurse per bed. We have to growth 2.5times in the number of nurses.

Balance between the human and physical resources is essential to ensure the system's success. Due to their apparent and important differences, it is essential that human capital is used and managed in a

different way from physical capital. The relationship between human resources and health care is very complex, and it merits further examination and study (Kabenel et al. 2006).

5. Conclusion

Planning in relation to compensating lack of personnel and achieving hospitals manpower to standard level of personnel and providing an adequate education program for heads of wards in relation to the management and proper planning of manpower in hospital wards would lead to an increase in the efficiency and effectiveness of hospitals activities.

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