ZAC Conference Series: Social Sciences and Humanities
(ZACCS: SSH)
https://conf.zenithacademic.co.uk/index.php/zacsssh
ISSN (Print): 3049-7760 ISSN (Online): 3049-7779
3rd International Humanitarian Conference, Baghdad 2024
Volume 001, Issue 01, 2024, pp. 001-360
https://doi.org/10.70516/zaccsssh.v1i1.52

Performance -based management system in hospital emergency

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Abstract. Background: Given the emphasis on evidence -based management in recent years and one of the new management methods is performance -based management, the purpose of this study was to establish an initial performance -based management system in the emergency department of Nikan Hospital in Tehran. Methods: Establishment of a science -based management system in the Nikan Hospital Emergency System includes six steps: 1) Determining the mission and goals of the organization, 2) Integrated Performance Assessment System 3) Response to Function, 4) Collection of Performance Data, 5) Data analysis, analysis, and performance data, 6) use of performance information to improve the organization. Results: Delays in the provision of bars, photography, experiments and specialized consultations in the crowded hours of emergency (20 to 24). The satisfaction of the patients was less than the service during emergency background (14 to 20). 70% of the patients declared recovery and about 70% announced that they would go to the hospital next time. Conclusion: Implementation of performance -based management system in the country's hospitals that lack the necessary infrastructure should pay many attentions and time and energy in this regard.

Keywords: hospital, emergency.

1. INTRODUCTION

The important role of the health sector in promoting various social, cultural and economic indicators of countries has led to the organizations involved in the mainstream of health management methods, further in order to implement the most efficient methods in the use of limited resources [1-5]. The creature and the health of the community are determined. Today, international organizations that are working to promote the health of all countries around the world (such as the World Health Organization and the World Bank) believe that what threatens the health of developing countries is the drawbacks of resource management rather than lack of health budgets [6-11]. It should be noted that the most important components of organizational resource management are those that are somehow linked to human capital. It has been well shown today that the most important capital and the largest factor in any success in any human resources organization is motivated, efficient and powerful. For a variety of reasons in organizations that have a service aspect, including those who provide health and health services, these capitals make a double importance [12-14]. For example, it can be said that in such organizations there are not many side factors (such as the quality of raw materials) that affect the quality of the end product and the major determining factor in this area is its employee function [15-16]. This Masnel has led you to consider the different approaches of organizational management and especially human resource management in recent years[17-18]. Performance -based management is one of these approaches because of its unique properties as a center of new scientific studies and studies and distinguishes it from other management methods. The Ministry of Health and Medical Education is also in line with the goals of the Third Five -Year Development Plan of the

Islamic Republic of Iran (emphasizing the increase in human resources and establishing quality work indicators instead of quantitative criteria) institutionalizing this management method. Has put his work. The selection of the emergency department of the Nikan Hospital in Tehran as a pre -test site for the deployment of this system has been considered [19].

2. METHODS

The implementation steps of the science-based management system implementation plan in the emergency room of Nikan Hospital in Tehran follow the general principles of establishing this system [4], which includes 6 steps:1) Determining the organization's mission and goals, 2) Integrated performance measurement system:3) accountability for performance, 4) collection of performance data, 5) analysis, review and reporting of performance data, 6) use of performance information in improving the organization.

At first, the members of the team/committees related to the phases of the plan (steering committee) were selected. These people include the director of the hospital, one person as a representative of the development deputy of the respective ministry, the emergency supervisor, the hospital matron, the service manager and the members of the project team. Then, the next stage was carried out by holding numerous meetings, as well as preparing and distributing executive manuals and educational pamphlets for justification and information. Strategic planning was done with the focus on the customer, and the processes governing the emergency and process owners were determined. In the next stage, the key activities and functions performed in the emergency department of Nikan Hospital in Tehran were "quantitative" and measurable. In this stage, at first, the indicators related to the processes and dependent variables that were necessary to interpret the performance indicators were determined and the birth certificate of 52 indicators and the variable was prepared. Then the data collection process was determined. The indicators were divided into 3 categories: 1) patient satisfaction, 2) time and manner of performing activities, and 3) financial, spatial and human resources indicators or indicators that are routinely collected. After a pre-test and correction of the questionnaire, the effort to complete the questionnaires began, and during meetings with the officials and active colleagues in the emergency department, the importance of completing the questionnaire and accuracy in completing it was emphasized, and the necessary explanations were provided regarding how to complete the questionnaire. About 2000 questionnaires were also completed, and for various reasons, despite the good cooperation of the personnel, especially the doctors and nurses active in the emergency department, it was not possible to use the information in the questionnaires. For this reason, data was collected in a period of 15 days with the presence of independent observers from the hospital system.

As of 6/25/2024, 677 patients were registered at Nikan Hospital in Tehran emergency room. The clients included all the people for whom an emergency file was created and they were placed on the emergency bed, or they underwent minor surgery in the emergency operating room, or they were treated with serum as prescribed by the doctor. Out of this number, 200 samples were selected to examine their satisfaction with the service. Due to the fact that there are different methods to collect satisfaction measurement information, 200 people were divided into 4 groups. 1) by phone, 2) in person, 3) by phone and if there is no response in person, 4) by mail. The results of the postal group were not analyzed due to the small number of answers, and 105 of the remaining 150 people answered the questions. According to the obtained results, the first meeting of the improvement committee was held with the presence of all the responsible people and while explaining the results of the project, it was decided that all the people should present their suggestions to improve the indicators. In the second meeting, a table of suggested activities was prepared with the opinion of the members, and it was decided that each person responsible for the improvement activity should perform the necessary activity and submit the report in the next meeting of the committee.

3. RESULTS

The average age of the patients (SD = 20.3) was 36.5 years, with a minimum of less than one year, a maximum of 99 years, and a median of 31 years. There were 335 men (49.5%) and 342 women (50.5%). figure 1 shows the distribution of the absolute frequency of visitors according to the hours of the day. As can be seen, the number of visits during the hours of 20:00 to 24:00 is much higher than other hours of the day and at least double. % of the patients were discharged, 10% were sent to the referral department and 2% were sent to another hospital, 1% died and 7% of the patients were discharged from the hospital by personal consent. The most common reasons for referral were nausea and vomiting (14.5%), heart attack symptoms (12.1%), cuts (10.0%). If we consider the delay in performing ECG more than 5 minutes, photo 20 minutes, test 120 minutes and expert consultation 30 minutes, 19% of the cases are performed ECG, 35.3% take photos, 26.7% perform tests and 7.7 21% of expert consultation was associated with a delay in providing services. figures 2 to 5 provide information regarding the delay in performing activities in terms of reference hours. figure 6 shows the opinion of patients regarding returning to the

hospital in case of illness, and figure 7 shows the state of recovery of patients. Most of the complaints were in the hours of 14 to 20, which are the hours of less emergency activity. Table 1 shows the results of some of the measured indicators. According to the results obtained, the following suggested activities were identified for implementation: preparation of brochures to inform patients of their rights, training of non-medical personnel for new cases and dealing with patients, increasing the number of EKG machines during busy hours, increasing the number of radiology personnel during busy hours. , lack of attention to the work of general doctors at night hours to request the presence of a specialist doctor, increasing the number of nurses between 14 and 20 hours, increasing the number of personnel between 14 and 20 hours to improve work flow, carrying out financial affairs by a secretary based in the emergency department, separating emergency tests And normally, in the hours of 6 to 14, in order to increase the recovery of patients, patients suffering from diarrhea, kidney pain, abdominal pain should be given more attention, attention should be given to strategies to increase satisfaction with health. The establishment of a new management system in any situation has its own problems, and if the basic conditions and proper platform are not provided, this work becomes more difficult. If we consider performance-based management in the field of overall system management, management is based on the results and consequences of the system, but in a system where there is no management on the inputs, the process of doing activities, and the outputs.) does not take place and as a result there is no information about the components of the system, there will be differences in the operation and establishment of the performance-based management system. In such a management environment (where managers and employees are not familiar with basic management and system issues and do not know how to work with information and data), phases such as justification, accountability, information collection and information analysis are very controversial, the topic is different in books and references.

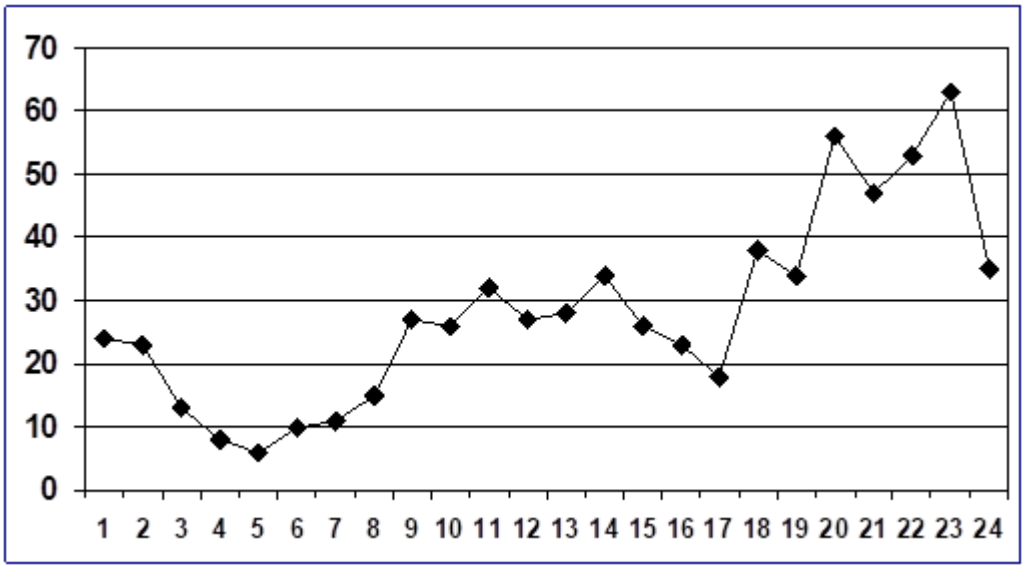

Figure1. Distribution of the absolute frequency of 677 patients visiting the emergency room by hours.

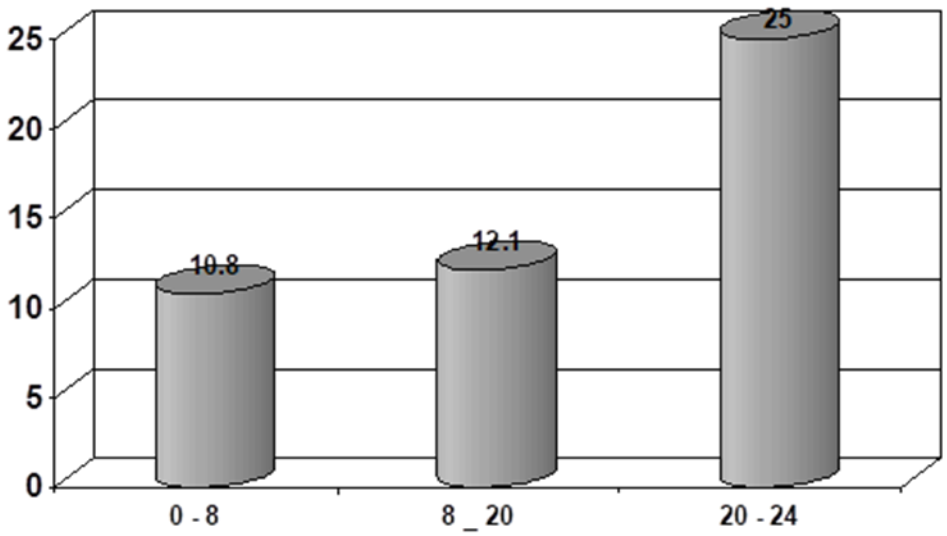

Figure2. Distribution of the relative frequency of performing an EKG with a delay in the request (more than 5 minutes) according to the time of the request.

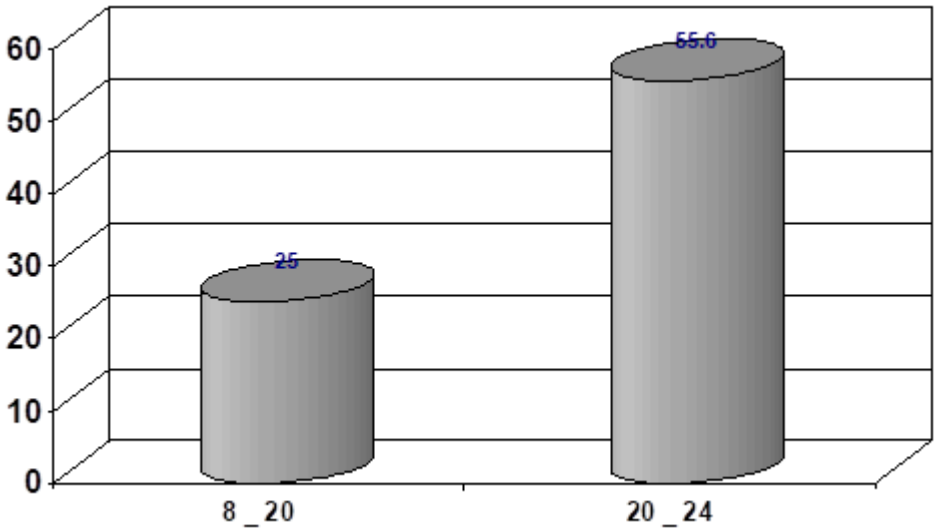

Figure3. Distribution of the relative frequency of the photo request with a delay (more than 20 minutes) according to the time of the request.

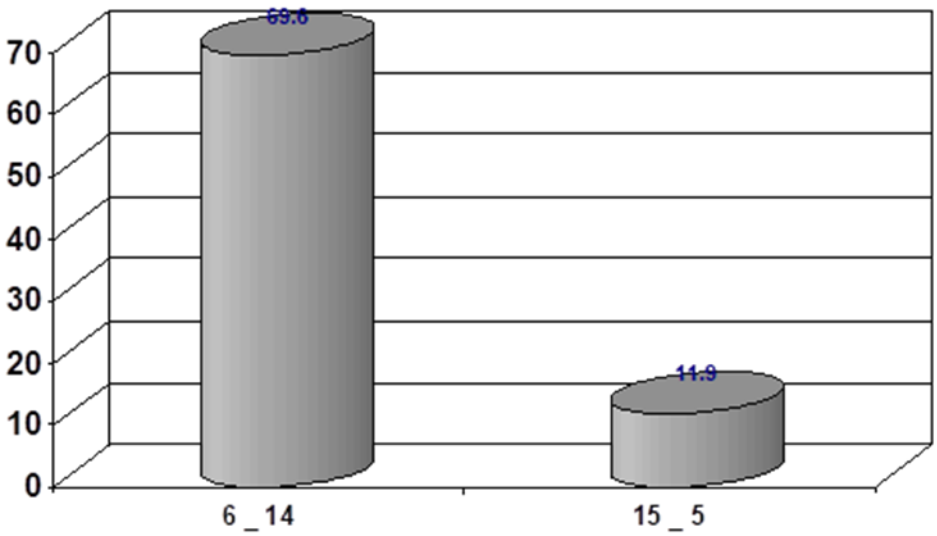

Figure4. Distribution of the relative frequency of test requests with delay (more than 120 minutes) according to the time of the request.

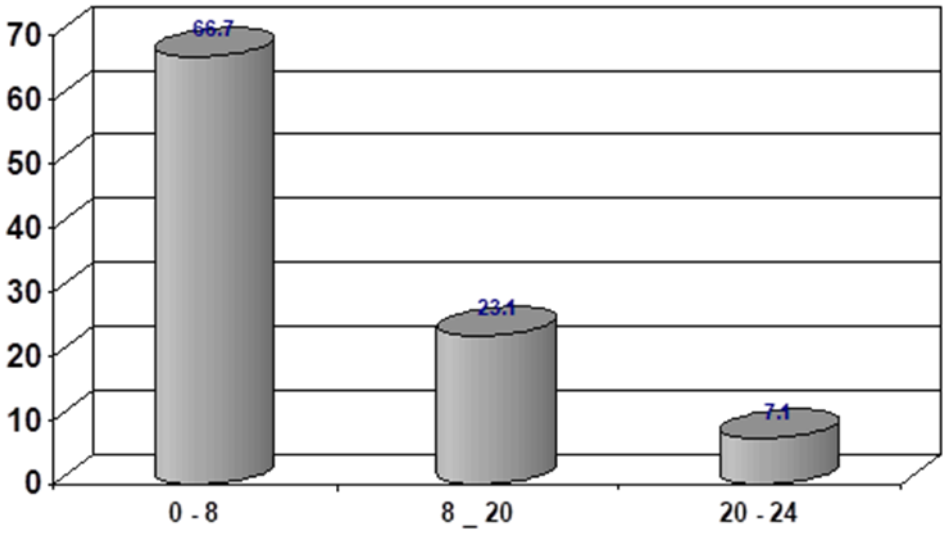

Figure5. Distribution of the relative frequency of the request for specialist advice with a delay (more than 30 minutes) according to the time of the request.

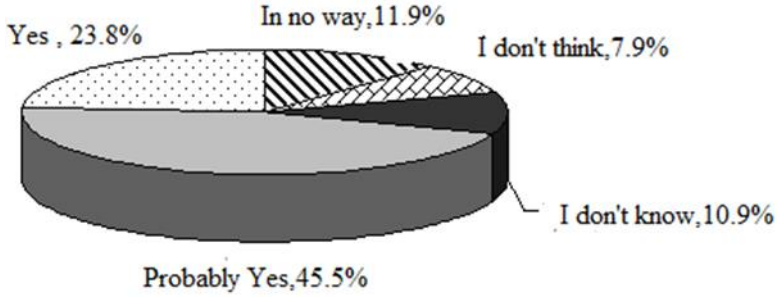

Figure6. Distribution of the relative frequency of patients' opinions regarding re-visits.

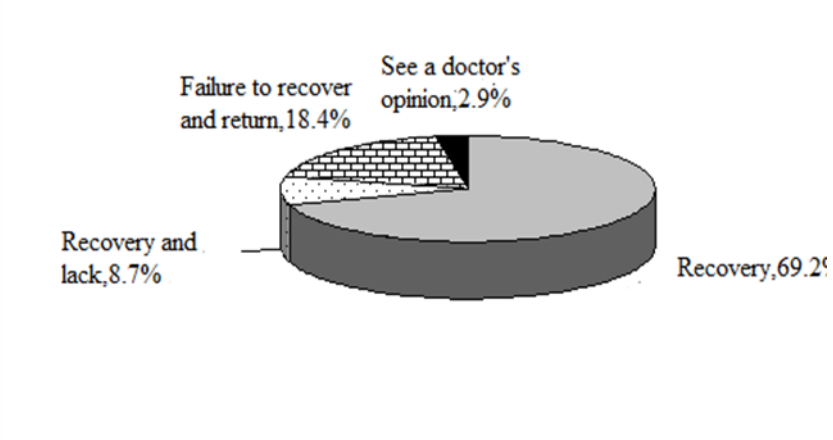

Figure7. Distribution of the relative frequency of patients' recovery status.

4. CONCLUSION

- Although the phases must be carried out according to what is written in the books, at the end of each phase, all the objectives of that phase cannot be achieved and the results of the data are not analyzed and are objectively available to the involved levels. The employees of the organization cannot be expected to be efficient and effective. At the end of the information gathering and analysis phase, the people of the system get to know the importance of the activities and in the next stages, they apply more appropriate cooperation.
- The indicators that should be studied and collected in the country are not only the performance indicators, but also the indicators of inputs (Input), the process of doing activities (Process) and outputs (Output) should be taken into consideration, because in the existing system There is no documentation of this information.
- Insisting on the rapid establishment of the information collection system in the routine system and the normal workflow of the system, due to the lack of appropriate cultural-organizational platforms and subsequently resistance and insufficient efficiency, may not be associated with much success. Even if we coerce people to record events, the results of Zarib cannot be used in the decisions and policies of the organization, therefore, in the first stage, information should be actively recorded by observers, and then in subsequent times (in this the plan should be done during the 4 stages of information collection) during the system's routine workflow.
- One of the important issues that is important in such plans is to attract the participation of employees and managers on the one hand and not to be disappointed by the failures that may initially hinder the implementation aspects of the plan. It is necessary to pay attention to the fact that creating a suitable motivation and platform for the fundamental establishment of such organizational reforms is not possible only by organizing several training-guidance sessions (which is possible in the implementation of a plan in a limited time) and only by continuing the foundational measures. The appropriate culture of the organization as well as the expectation to change the behavior of employees and managers as a result of being aware of the results of the activities is possible.
- Organizational improvement does not necessarily require extensive, time-consuming and expensive activities and measures, because in many cases, only by making minor changes, the efficiency and effectiveness of the system can be improved in the best way. Such changes can include the following: conducting some explanatory and educational classes, carrying out some corrective measures in the processes and executive methods governing the organization, using more than the available personnel in the form of titles such as overtime and... and finally Applying some reminders and warnings when other methods are not effective.
- It is not possible to prepare a strategic and operational plan without having the necessary information about the parent organization's policies regarding allocated facilities and resources, work indicators and many other factors. It seems that it is better to postpone the design and compilation of the most realistic and practical programs to the next period, that is, when better use of information about these components is possible. Having quantitative and realistic goals is only possible with up-to-date information.

- In order to judge and interpret the results of activities and implement improvements in the system, the use of absolute numbers of indicators may not be enough, but more analyzes and determination of their relationship with work shifts and some other variables are needed. For example, after descriptively determining the rate of recovery of the patients, a cross table of this index was prepared with the reasons for referral, in which it was determined that patients with diarrhea, kidney pain, and abdominal pain complained more about the lack of recovery. They need to be treated with serum and be under observation for a few hours. Due to the lack of beds, they are discharged after receiving the serum and two hours have passed, which causes them to not fully recover and the patient goes to another place.
- In the implementation of the performance-based management system in the country's hospitals that lack the necessary infrastructure, attention should be paid to many points and a lot of time and energy should be spent in this field.

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