



USE OF GAP ANALYSIS TECHNIQUE TO IMPROVE PERFORMANCE OF FAMILY PHYSICIAN PROGRAM, CASE STUDY: RURAL HEALTH CENTERS, YAZD, IRAN

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ABSTRACT

Introduction: Structure and framework of health care services provision system are worthy of attention regarding its qualitative and quantitative aspects. Health system will fail to preserve and improve public health or it will waste the available physical/human resource if it fails to follow scientific principles and logics.

Objective: The present study is an attempt to use gap analysis technique to determine the status quo of provision of health services in health centers and to achieve bases for improving quality of services for family physician program.

Methodology: In this applied, descriptive, and cross-sectional study, a checklist (confirmed through Delphi method) was used for data gathering. The checklists were filled out by the experts of administrative sector of Mehriz Health Network. The collected data was analyzed in SPSS 21 and Excel by using descriptive statistics and T-test.

Results: Mean score of quality of health services of the 28 health centers under study was 15.43. The results showed that environment hygiene, and job hygiene, and health education departments obtained lower scores comparing with fighting diseases unit, school health and nutrition departments. The findings helped us to determine which departments of Mehriz health network needs to act more for improving quality of performance in Family Physician Program.

Conclusion: Gap analysis technique gives a clear picture of the current state and the gap that needs to be filled to reach the ideal situation. By paying more attention to the areas with higher priority of improvement, the health centers may improve quality of their services more efficiently.

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Introduction

Urban and rural health care centers are the backbone of health services of a country. Ensuring satisfactory performance and quality of the health services in remote areas depends on performance of the health centers [1]. Service quality has increasingly been considered the key factor in differentiating services which also brings competitive advantages such as improved customer retention, positive word-of-mouth, reduced level of staff migration, decreased costs in attracting new consumers, increased profitability and financial performance, increased customer satisfaction and enlarged market shares [2].

Nowadays, many health care organizations begin to recognize that quality should be assessed for survival. Factors such as new incentive structures, declining reimbursement and increasing competition have placed a pressure on health care organizations to deliver health care efficiently and effectively. On the other hand, health care managers hope to decrease operating costs, expand access and improve service quality. In other words, if the health care organization cannot offer a threshold level of quality then patients will utilize it for minor ailments or see it as a last resort besides other forms of treatments [3].

Quality of Health services can improved through determining standards and try to reach them. A standard is a statement of a defined level of quality in the delivery of services that is required to meet the needs of intended beneficiaries, in this context safe, accessible, acceptable, appropriate equitable, effective, and efficient health care. Standardization in general is a way to minimize variability and ensure a minimal required level of quality to protect users and is used in many sectors and various aspects of health care. In health care, a standards-driven approach has been used to allow health services to realize aspirational but achievable goals through assisting in the implementation of appropriate practices and guiding continuous quality improvement but suddenly cannot reach the standards and should be done gradually [4].

Both quality and quantity of the health and medical structure and framework of the health centers need to be taken into account. Following rational and scientific principles is the key to preserve and improve public health and to make efficient use of the physical and medical resources [5]

Many specialists concluded that it is a two dimensional variable. For instance, Lehtinen and Lehtinen (1982) have defined service quality using terms such as corporate quality, interactive quality and physical quality whereas Gronroos (1983) described service quality as a technical quality, namely what is delivered, and as well as, a functional quality, that is, how the service is delivered [2].

Administrative department of the Health Network is the place where programs are developed and performance of family physician and health centers is supervised. The health workforce itself is, by-and-large, the engine behind these efforts. At the front-line of care, clinicians, health managers and other health professionals are intimately familiar with the needs and the realities of the system's operations [6].

Knowing the status quo is the foundation of making any plan as without knowing strength and weakness of an organization, determining strategic and operational goal is not possible or useful. Knowing this, gap analysis technique was used to determine status quo of the health centers [7,6] believe that instating a diverse set of evaluation tools to capture novice-level knowledge, skill and judgment is thus, integral in the development of competencies. This can be activated by a range of evaluation tools including Objective Structured Clinical Examinations (OSCEs), interviews, written and multiple choice testing, periodic evaluations based on peer and external observations [6].

Gap analysis is a method to determine the steps needed to be taken to move from the status quo to the future state. This progress needs determining the status quo, developing a list of future objectives and then filing the gaps between the status quo and the future situation [8].

According to another definition, gap analysis is a process through which a business compares its actual performance and expected performance and efficiency of using the resources [9]. The technique categorizes and puts in order the gap between actual and ideal states [10]. Filling the gap needs accurate planning and programming. Given the importance of family physician program in the country and necessity of improvement of quality of the services provided through the program, gap analysis can help it to spot and remove its actual disadvantages [11]. A truncated schematic view of the model used in this study is pictured below. (Fig. 1)

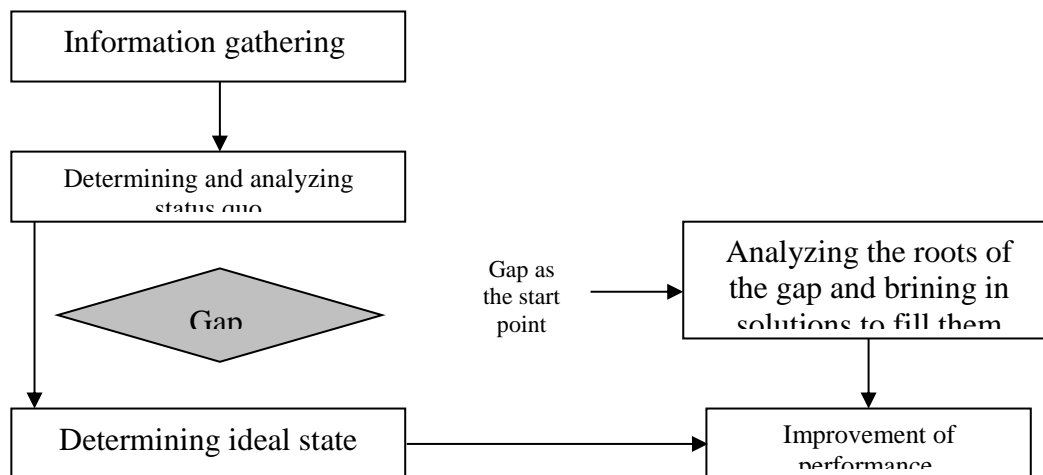


Figure 1: schematic view of the model used in this study

Methodology

The present study was an applied, descriptive and cross-sectional research. Data collection tool was through Checklists. After designing checklists, its validity was confirmed by experts based on Delphi method. Mehriz Health Network experts through formation monitoring teams visit centers that covered by family physician. The checklists was filled out by experts through observation and interview. Mehriz Health Network experts consist of 10 departments including: network development unit, fighting disease unit, family health, job hygiene, environment hygiene, school health, midwifery-nursing, nutrition, health educations and medicine departments. Technical visits carried out by these departments separate. The collected data was analyzed in SPSS21 and Excel and Descriptive statistics and t-test was used for analyzing data.

Results

The twenty-eight family physician centers in Mehriz Health Network consisted of 7 rural health centers and 21 health clinics. Mean scores of quality of health services in the health clinics and rural health centers were 15.45 (Std. Deviation=1.12) and 15.38 (Std. Deviation=0.59) respectively and total mean score was 15.43 (Std. Deviation=1). To test the hypothesis of equality of averages obtained to score 20, t-test was used. In table 1 results of t-test to test all three averages is given (Table1). As the table shows, lower and upper bounds is negative, which indicates that the average obtained is lower from the test value.

Table 1: Results of One-Sample Test

One-Sample Test					Test Value = 20					
Variable	N	Mean	Std. Deviation	Std. Error Mean	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
									Lower	Upper
health clinics	21	15.45	1.12	.24	-18.51	20	.000	-4.5	-5.05	-4.03
rural health centers	7	15.38	0.59	.22	-20.6	6	.000	-4.6	-5.15	-4.06
total	28	15.43	1.00	.19	-23.9	27	.000	-4.5	-4.95	-4.17

As said Technical visits carried out by departments separate. Scores from each departments sorted. Figure 1 shows that environment hygiene, job hygiene, health education and family hygiene departments obtained lower scores comparing with other departments. (Fig. 2)

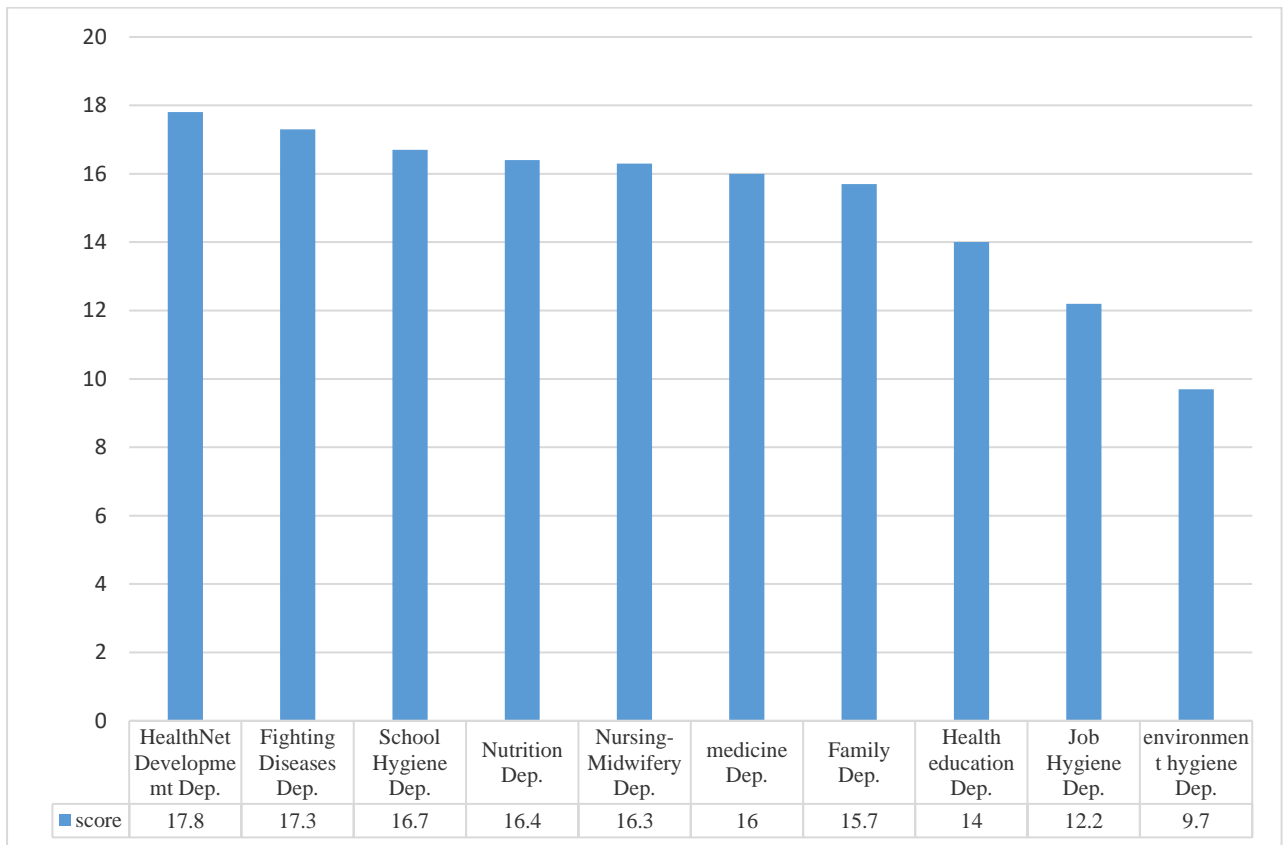


Figure 2- Mean score of the departments covered by the Mehriz health network

Further findings indicated the scores of quality of health services in the all departments based on health centers and health clinics categories.

The findings regarding the obtained score by each family physician department indicated that which departments had higher priority for improvement. For instance, environment hygiene, job hygiene, medicine and health education departments obtained lower scores in Ernan Clinic. (Fig. 3)

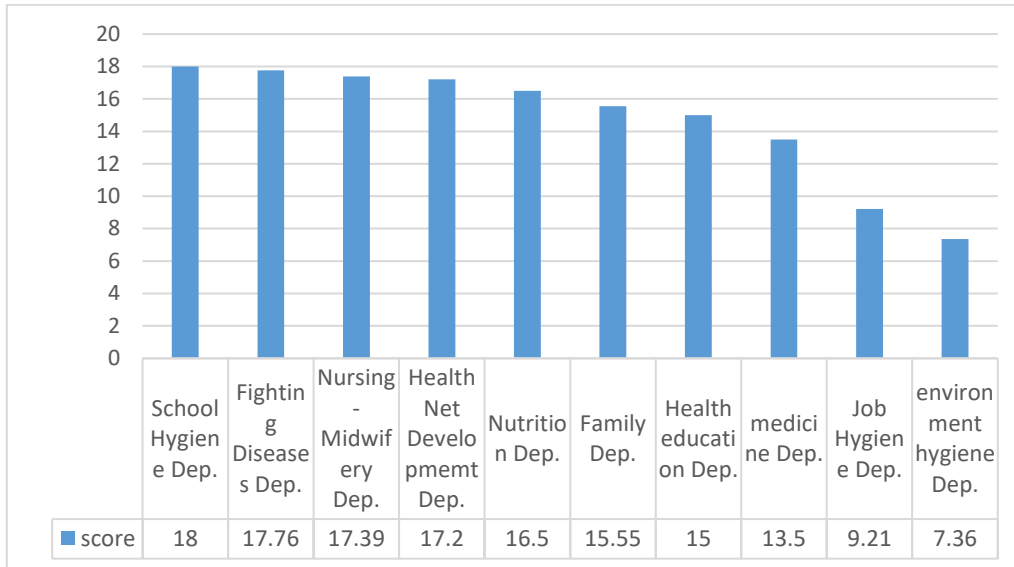


Figure 3- Score of Ernan Health Center based on the departments

The findings highlighted which clinic covered by a health center needs more attention. The scores obtained by the clinics covered by each health center were sorted and in the case of Ernan Health Center, the result was as follows (table2):

Table2- The scores obtained by the clinics covered by Ernan Health Center:

Center Name	Score
Aliabad Clinic	17.57
Sarv Clinic	17.28
Abdollah Abad Clinic	14.61
Ernan Clinic	14.86

The same results were obtained for other health centers and determined Quality gaps.

Discussion:

Taking into account the findings regarding the clinics under study, the questions are “where is the start point of improving performance of family physician program?” and “what is the gap between the status quo and the ideal situation?” The results indicated the gap and as noted, environment hygiene, job hygiene, health education, and family health departments obtained lower scores than other departments. Therefore, managers, experts, and policymakers of health networks and family physician program need to pay more attention to the areas with lower scores. Determining the cases of underdevelopment and removing the problem would be the next steps.

To highlight the departments with higher priority, the departments with lower scores were sorted in a descending order. This list shows the managers which department needs more improvement and attention immediately.

We also sorted the clinics based on administrative units of health network. Through this, the authorities of the network and family physician program can make better plans regarding the departments that have higher needs for their services.

Having these results, family physicians in urban health centers can bring in more efficient plans to improve quality of services in clinics with lower score.

Many service organizations including health and medicine organizations have used gap analysis technique to improve quality of their services. Dike et al. (2010) utilized the technique to improve quality of medical services in a clinic over 18 months and found that the patients had good clinical results in 95% of the cases [12]. Mirqafouri and Zareh (2007) used servqual model and gap analysis and found significant difference between expectations and perceptions of the patients and the personnel of internal wards of Shahid Rahnamoun Hospital, Yazd, Iran [13]. Another survey to determine the gap between status quo and desired condition of total quality management in private centers of Welfare Organization using Fuzzy Logic showed that there was significant differences regarding all elements of total quality management. This indicated that the personnel perceived the status quo less than what they expected as a desirable situation [14].

[15] surveyed the relationship between perceptions and expectations of the patients regarding services provided by clinics in Zahedan city and showed that there was a gap between status quo and desired quality of medical services. The managers could fill the gap by making effective plans and implementing proper management and education programs [15].

Conclusion:

Gap analysis is a key management tool that helps managers to determine status quo of services in health centers. The results determine the start point and the distance to ideal situation. Naturally, Family physicians in rural areas may use the tool on daily bases to monitor and improve quality of their services step by step and contribute to improvement of health in the society.

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