

Development and Application of an Indicator for Reliable Survey of Patient Complaint Data

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Abstract

Background and Objectives: Data on patient complaints can be used as a feedback to improve the quality of healthcare services. The aim of this study was to develop an indicator for reliable retrieval of statistical data on patient complaints.

Methods: A triangulated study was conducted. A comprehensive literature review was done to identifying the relevant major themes. Two-rounds of Delphi sessions (8 experts were in attendance) and two panel meetings were held to refine and approve the themes. The obtained indicator was then used to collect patient complaint statistics from the selected hospitals.

Findings: A ten-item indicator of patient complaints was developed and used to survey patient complaints in Tabriz city (Northwestern Iran). Of the total of 6958 complaints registered in Tabriz hospitals, 83.9% were made by inpatients and 82.5% were resolved in the hospitals. The rate of complaints was found to be 2.95 per 1000 referrals. Only 36% of hospitals had a written policy to use the complaints in quality improvement initiatives.

Conclusions: Application of the developed indicator revealed that the hospitals of Tabriz city are facing with a relatively high rate of complaints when compared with the average rate in the literature. While the fact that the majority of complaints are resolved in the hospital is promising, measures should be taken to encourage hospitals to use the complaints data in enhancing the quality of services.

Keywords: Complaint management, Patient satisfaction, Quality of health care, Hospital management

Background and Objectives

Hospital is one of the major institutions of the health sector [1]. They are in direct contact with patients and customers in order to supply, maintain, and improve the health of society members. Ineffective interaction of hospital service providers with the customers may result in grievances and complaints. Different studies have indicated that the main reason for complaint is dissatisfaction [2, 3]. People make complaints when

they do not feel satisfied because their expectations are not met for different reasons, and the patients take a bad experience of service delivery [4]. Achieving this satisfaction requires different preparations, which are improbable in some cases [2]. In most hospitals, the most widespread reason for complaints is the conflict in interpersonal relationships [5]. According to some studies, more than one third of the complaints pertain to the problems in making contacts. The relevant frequency was rather equal to the frequency of the complaints pertaining to the type and quality of provided health services, healthcare accessibility, service costs, and waiting time in some other researches [6, 7]. Complaint can have a negative impact on the individuals and organizations providing

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health services [8]. On the other hand, complaint can give feedback on the service providers' performance or specify the fields in which performances are weak [9]. Therefore, it may create an opportunity to design strategies for improving the healthcare quality [10]. Nowadays, dealing with complaints is considered an essential part of the healthcare system in order to promote the healthcare standards [2]. In Iran, studies have shown that 92% of hospitals have complaint boxes, and 77% of them have complaint lines. Moreover, 30% of the university hospitals inform the complainant of the results after the complaint is dealt with, and there is no system for pursuing the complaints in any hospitals in the country [11]. The results of different studies have also indicated that more than 83% of the complaints made by patients were resolved in the hospital, and only 3% of them were referred to legal authorities [6, 12].

If hospital policy makers and managers want to deal with the complaints effectively and resolve them, they should have a better understanding of their surroundings first [5]. Therefore, submitting and dealing with complaints, in this regard, is considered a main strategy. However, merely submitting the complaints cannot be helpful, and the performance of this process should be evaluated through a reliable method in order to promote the situation [13, 14]. One of the most widely used reliable methods is to develop a set of indicators to measure the performance [15, 16]. Using outcome measures and performance indicators is a way to monitor, assess and improve the quality of the services [17, 18]. Indicator development and reporting is a most accepted method in various countries, and several studies have been done to develop and measure the indicators in health care [17, 19-21]. This study aims to identify, develop, and evaluate the indicators of dealing with complaints in the hospitals in Tabriz.

Methods

This triangulated study was conducted in the selected hospitals of Tabriz, Iran. A comprehensive literature review was done to identify complaint management indicators. Then two rounds of Delphi technique were held. Indicators were approved through two panel meetings. In the Delphi study, a tabulated list of indicators was sent to the members of the expert panel. They were instructed to individually rate the indicators on a 9-point scale based on the aspects of importance and feasibility. For each indicator, the experts' ratings were summarized into a median rating. In

round 1, indicators with the median score less than 4 were excluded, score > 4 and < 7 were selected to the second round of Delphi, and indicators with score of > 7 were confirmed as the final indicators. Indicators list with the calculation guide was sent to all hospitals in Tabriz city ($n = 21$, 10 public teaching hospitals of Tabriz University of Medical Sciences, 2 hospitals of armed forces, 7 private hospitals and 2 social security hospitals). With a two-week break, the indicators data were gathered by trained researchers through patients' records, hospital information system (HIS) and document reviews. Data were analyzed using Excel 2007. This is a part of a vast study to assess clinical governance movement in Tabriz. Research method was completely reported in an article "Tabriz Clinical Governance Research Project (TCGRP): Study Protocol" [22], which was approved by the Ethical Committee of Tabriz University of Medical Sciences. Also the codifying process of indicators was published through another article [18].

Results

Qualitative phase of the study resulted in 9 indicators and 4 criteria for complaint handling in Tabriz hospitals (Table 1).

The identified criteria were a) having complaint office, b) complaints management committee, c) written policy about complaints handling, and d) how to use patients' complaints to improve services.

Indicators data were gathered for 19 hospitals (response rate = 90.4%) including 8 teaching, 7 private, 2 military and 2 social security hospitals. The results revealed that totally 6958 were registered in Tabriz hospitals in 2013, out of which 83.9% ($n = 5838$) was related to inpatients, and 16.11% ($n = 120$) to outpatients. Actually, the rate of complaints was 2.95 for every 1000 patients. The highest rate of complaints was registered in the private hospitals. The median of hospitals' response to the patients' complaints was 4 days (Table 2).

In addition, the results showed that 78% ($n = 15$) of hospitals have complaint office, and only 36.8% ($n = 7$) had a written policy to use patients' complaints to improve services. However, 78% of the hospitals had a written policy to handling the complaints, and just 63.15% ($n = 12$) of them had an independent complaint management committee.

Discussion

The number of complaints was reported to be 2.95 per

Table 1 Complaints management indicators in Tabriz hospitals

Indicator	Formula	
Inpatient complaint rate/year	Numerator	Inpatients-written complaints in a year *100
	Denominator	Number of inpatients in the same year
Outpatient complaint rate/year	Numerator	Outpatients-written complaints in a year *100
	Denominator	Number of outpatients in the same year
Waiting time for responding to complaints	Numerator	Median time for complaint handling (registering to first response to the patient)
	Denominator	
Closed complaint cases/year (%)	Numerator	Closed complaint cases in a year*100
	Denominator	Number of complaint cases in the same year
Complaint cases expressed in related commissions (%)	Numerator	Complaint cases expressed in related commissions in a year *100
	Denominator	Number of complaint cases in the same year
Complaint cases referred to law enforcement authorities (%)	Numerator	Complaint cases referred to law enforcement authorities in a year *100
	Denominator	Number of complaint cases in the same year
Rate of complaints received by the hospital from court	Numerator	Complaints received by the hospital from the court
	Denominator	Number of complaint cases in the same year
Court decisions' implementing rate	Numerator	Number of implemented court decisions, *100
	Denominator	Number of court decisions
Staffs being educated about complaints handling (%)	Numerator	Number of staffs being educated about complaints handling *100
	Denominator	Number of hospital staffs
Patients aware of complaints process (%)	Numerator	Number of patients who know complaint process * 100
	Denominator	Number of studied patients

1000 referrals to the hospitals in Tabriz. This number was in the range reported by other studies (0.158-3.8) [12, 23, 24]. Despite the fact that this number was calculated without considering 2 hospitals, it was very close to the highest number reported by other studies. Considering the fact that there is no appropriate infrastructure to deal with complaints in the hospitals, it can be stated that the real number would be more. The increased number of complaints in hospitals should draw the attention of hospital managers, doctors, and other staff. The study by Mirzaaghaee *et al.* (2012) in three university hospitals covered by Tehran University of Medical Sciences from March 2008 to January 2009 indicated that 363 complaints were registered during 24 months. The number of inpatient and outpatient admissions was 40016 individuals in these three hospitals during this period, and almost 0.9% of the patients made complaints [10]. The NHS complaints system registered 162000 complaints in 2012-13

about its organizations. Of these complaints, 31.9% (34900 cases) were made by outpatients, 27.5% (30000 cases) were made by inpatients, and the rest was about other services [25]. In a study by Anderson *et al.* (2001), 1308 complaints were registered in a big hospital in Australia during a 30-month period [26]. The results of the current study indicated that 6958 complaints were registered in the hospitals in Tabriz in 2013, of which 83.9% (5838 cases) were made by inpatients and 16.11% (1120 cases) by outpatients. The largest number of complaints, made by both inpatients and outpatients, was registered in the private hospitals. In a study which was conducted in NHS in a hospital for 22 months in 2007, 22849 outpatients were admitted, and 183 complaints were registered (0.8%) [27]. In the current study, 2169701 outpatients were admitted, and 1120 complaints were registered (0.05%). The fact that the number of complaints registered in the hospitals of Tabriz was low in comparison

Table 2 Statistics of complaint management indicators (Tabriz hospitals)

Indicator	Total	Teaching hospitals	Private hospitals	Military hospitals	Social security hospitals
Inpatient complaint rate/year	3.17	0.12	10.88	0.22	0.07
Outpatient complaint rate/year	0.05	0.04	0.10	0	0.022
Waiting time for responding to complaints (Day)	4	8	3	2	5
Closed complaint cases/year (%)	82.5	86.95	82.36	1	1
Complaint cases expressed in related commissions (%)	0.01	0	0	0	0.625
Complaint cases referred to law enforcement authorities (%)	0.17	0.32	0.06	8.77	1.25
Rate of complaints received by the hospital from the court	0.22	0.96	0.13	7.01	0
Court decisions' implementing rate	1	0	1	1	1
Staffs being educated about complaints handling (%)	35.47	16.82	44.84	63.87	32.47

* The indicator number 10 was not reported in this article, because its methodology to data gathering was different.

** Just for one of the social security hospitals

with similar studies was for lack of appropriate system of registering and dealing with complaints in the hospitals. Some of the studied hospitals had no statistics indicating the complaints, and relied only on informal and oral complaints and proceedings.

The results of the study indicated that the median duration of dealing with the complaints in Tabriz hospitals was 4 working days. In the study by Mirzaaghaee *et al.* (2012), this duration was 2 days, during which 51.7% of the complaints were resolved [10]. In the study of Syambalapitya *et al.* (2007), most of the complaints were resolved in 20 days. This study indicated that 82.5% of the complaints were resolved inside the hospital, and almost 17% of them were referred to the legal authorities [27]. Regarding the rest of complaints, there was no specific information in the hospitals due to the lack of a system for registering and storing the records. However, it is to be noted that almost 0.2% of the complaints were related to those referred by the legal authorities to the hospitals. Similar to these results, the study by Mirzaaghaee *et al.* (2012) also revealed that the majority of complaints (61.8%) were resolved inside the hospital, and 38.2% were referred to a superior authority (12.5% to the head of the hospital, 8.2% to the manager, 3.6% to the matron, and 16.5% to others) [10]. The results of another study pertaining to the complaints made by the patients admitted in an eye hospital indicated that 84% of the complaints were resolved through apologies and necessary explanations inside the hospital, and only 1% was referred to the legal authorities [4]. The study by Wong *et al.* (2007) also concluded that 83.9% of the complaints are resolved inside the hospital [12]. These results were consistent with the findings of the present study.

The complaints made by patients are signs of dissatisfaction with the services provided by the hospital

staff or other relevant problems. They somehow indicate the gaps in the system of providing services to satisfy the customers. If a systematic approach is created to manage and deal with the complaints in the hospitals, not only the hospital performance will be improved, but also the quality of services will become better. It is essential to analyze, compare, and share the information extracted from the complaints with hospitals. This will lead to the growing development of the hospitals. It will further provide the staff with training courses in different age groups based on correct management of complaints. The results suggest that the hospitals located in Tabriz were weak in this aspect. It means that only 35.4% of the staff working in the hospitals in Tabriz passed the training courses pertaining to how to deal with complaints. Lack of adequate knowledge of staff is a major challenge in execution of quality initiatives [28]. Making appropriate policies, and providing and developing explicit instructions and guidelines could be helpful. According to the results, it appears that the hospitals have taken appropriate steps to provide the infrastructures required to deal with the complaints properly in Tabriz. In details, 71% of the study hospitals have a separate office intended to deal with the complaints, 80% of them made written policies to deal with the complaints in various clinical and non-clinical aspects, and 57% have a committee dealing with the complaints. The disadvantage observed here was the fact that the complaints were not used as opportunities to improve the services. It means that only 37% of the hospitals made written policies to use the complaints made by the patients in order to improve the services. These hospitals did not have any specific performance in this area. In a same way, Hsieh (2010) revealed that no systematic using of the complaints to initiating quality improvement measures was a crucial

failure. He suggests that hospitals must strengthen their capacity to use patients' complaints to improve care quality [29]. Other studies mention that a protocol must be set up by the government to use patients' complaints to improve the service quality [30].

Conclusions

Complaining is the way of expressing dissatisfaction by the patients or the ones accompanying them to show that there may be some defects in the system. Nowadays, complaint management is considered as an essential part of the healthcare system in order to improve the health standards. Each complaint can be considered as a valuable opportunity to find a solution to improve the quality of the services the patients are provided with. The current study indicated that there are many complaints made by the patients, despite the fact that appropriate infrastructures of dealing with the complaints were not established in some hospitals. Therefore, the officials are supposed to make the policies required to develop the necessary infrastructures. On the other hand, appropriate plans and cultural programs must be established to use the complaints made by patients to improve the quality of services provided in hospitals.

Competing Interests

There is no conflict of interest relevant to this article.

Authors' Contributions

Tabrizi JS, Sadeghi-Bazargani H and Saadati M jointly designed the study. Saadati M, Mirzaie A and Ebadi A collected, refined and analyzed the data. Tabrizi JS, Sadeghi-Bazargani H and Saadati M contributed to the interpretation of the results. Alibabayee R prepared the draft manuscript. Saadati M, and Alibabayee R revised and finalized the manuscript. The final manuscript was read and approved by all authors.

Acknowledgements

The authors thank the members of the expert panel, treatment affairs and hospitals CG officers for their contribution to the project.

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Please cite this article as:

Mohammad Saadati, Jafar Sadegh Tabrizi, Homayoun Sadeghi-Bazargani, Roghayeh Alibabayee, Amaneh Mirzaie, Ali Ebadi. Development and Application of an Indicator for Reliable Survey of Patient Complaint Data. *International Journal of Hospital Research*, 2015, 4(2):71-76.