

FAMILY OF INSTRUMENTS TO EVALUATE HOSPITAL QUALITY: A PILOT TEST

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ABSTRACT

Quality assurance in health care is usually disconnected from the object of its study. Even when quality assessment belongs to the day-to-day hospital management, it is seldom integrated in the decisions, vital pieces of the hospital services management. This situation would be unacceptable in other industries. In this study we focus our attention on how to obtain knowledge about the way customers – patients, physicians, and nurses – evaluate the quality of hospitals viewed as networks of interrelated processes and systems. The purpose of these instruments to assess hospital quality is to monitor hospital quality trends of the major processes and systems of the hospital, based on the judgments of key customers. The results of these measures can be used for multiple purposes such as identifying priority areas of improvement and monitoring quality trends.

INTRODUCTION AND GOALS

This research project aims at developing a family of measurement instruments in order to improve our knowledge about the evaluation regarding hospital quality performed by customers. Besides improving the theoretical knowledge related to this issue, this research is intended to allow an easy integration into the hospital quality management.

The purpose of creating this family of instruments to assess hospital quality (IAQH) is to monitor, on the basis of the opinions expressed by the major customers – patients, physicians and nurses – the evolution trends of some indicators of hospital quality. These measures, seen as outcome measures, reflect the customers' values on the output of several procedures aimed at delivering the services they need.

We propose three instruments to evaluate hospital quality, as follows:

IAQH-Dmc	Inpatients in Medicine and Surgery
IAQH-Med	Hospital Physicians
IAQH-Enf	Hospital Nurses

Other instruments to assess quality as perceived by other customers will be subject of further study. These customers include patients on external consultation, emergency unit, payers, and residents in the community where the hospital is located.

DEFINITION OF QUALITY OF CARE

Usually, defining hospital quality is considered a task to be done by clinical staff, with some inputs from hospital administrators. If we really believe in quality improvement and in continuous quality improvement, we should allow other participants to be involved in that task.

Some people argue that we should distinguish between art and science of medicine [1], and in order to distinguish between them we should have an in-depth knowledge about clinical issues. Following this

distinction, we should, for instance, rely only on the physician to perform the evaluation of the physician-patient encounter, because he is, probably, the only one with that clinical knowledge.

I feel that this is an important argument to use physicians' and nurses' judgments about quality on a whole evaluation of hospital quality. However, I believe that this is not all. We should base our evaluation and assessment of hospital quality on different types of customers, patients, the providers (physicians and nurses), hospital administrators, the guarantors (insurance or government) and the society. Knowing that strictly choosing one definition of quality may introduce a conflict between these viewpoints, we should use all of them and integrate them.

In 1933, Lee and Jones [2] defined quality as a normative behavior. Today, this is considered a classic definition: "Good medical care is the kind of medicine practiced and taught by the recognized leaders of the medical profession at a given time or period of social, cultural and professional development in a community or population group".

Donabedian undertook the task of examining and synthesizing the large amount of research done in the quality assurance area. He has had enormous impact on the current viewpoint of quality of health care, and is considered an elder statesman of quality assurance. He describes quality of care as "that kind of care which is expected to maximize an inclusive measure of patient welfare, after one has taken account of the balance of expected gains or losses that attend the process of care in all its parts" [1].

Since research in this area began, it has been difficult to distinguish the definition of the concept of quality of care from its operationalization. All researchers in this field agree that to develop a usable definition of quality of care it is necessary to enumerate the elements which belong to it. We need

to operationalize the definition of quality of care.

It emerges from the literature that two of these elements are related to the provider conduct and should be distinguished in the first place. The first one is the technical component of care or "curing" function which corresponds to how health sciences in general are applied in a particular personal situation, taking into account currently available medical knowledge and technology [3]. Its concern is the adequacy of the diagnostic and therapeutic processes, and its goodness is judged comparing to the best in practice. Technical quality of care implies judgments about competence of providers (e.g. thoroughness, efficacy, and unnecessary risks).

The second element — the interpersonal aspect of care or "caring" function — represents the humanistic elements of care and the social and psychological relationships between the patient and the providers, explanations of illness and treatment, and information received. It corresponds to the way providers interact personally with patients (e.g., consideration, friendliness, patience, courtesy, disrespect, rudeness, and sincerity).

Both technical and interpersonal aspects are considered part of science and part of art, not being always possible to distinguish between these two aspects of care. However, there is sufficient evidence that the caring process is usually appreciated by patients and considered as one of the most important aspects they take into account when they evaluate the quality of medical care.

The other three axes used by patients to measure the quality of care, and eventually patient satisfaction, are the accessibility, availability, and the continuity of care [4]. Accessibility and convenience are factors involved in the receipt of care, such as time spent by patients to get an appointment, to reach the hospital, waiting to be served, or the possibility to receive care at home. Also, as a component of the accessibility to health services [5], finances is an issue that has been taken into account by patients whenever they judge the quality of care. Regarding this last attribute, researchers usually consider three components: cost of care, payment mechanisms, and insurance coverage. As part of the accessibility of care, researchers include how easy is to access emergency care, how long it takes to get to the place where care is provided (convenience of services), and how difficult it is to get an appointment (access) for care.

The next dimension has been used to represent the availability of care resources: number of providers and facilities. It corresponds to the number of family doctors, specialists, and hospitals available to the patients as well as the completeness of office facilities.

The continuity of care (e.g., seeing same provider) is the last dimension used to define quality of care. It is included because it contributes to the attainment of the highest net benefit or net utility [1].

It measures the lack of interruption in needed care and the maintenance of the patient (or family) — provider interaction.

Some studies showed that these dimensions can be measured separately [6].

VIEWPOINTS FROM PATIENTS, PHYSICIANS AND NURSES

From the literature it is not always clear which path the authors choose to approach quality of care. The first and the simplest way to look at the definition of quality of care posits that it should only take into account the health care professionals. It does not consider any economic factors; patients' expectations and valuations are considered as barriers to define standards of quality and the variability of patients' opinions is seen as dangerous. Some researchers consider that, as experts in the matter, we should only listen to what practitioners have to say.

Some other researchers advocate a definition of quality of care based on the fact that one of the primary functions of health care is to provide patients welfare [7]. This perspective, based on patients' perceptions and values requires that important decisions about benefits and risks be shared with the patients, and that practitioners be considered as working on behalf of the patients. The patient should no longer be considered as the "disappointed observer of care" [8] or as the final victim of poor health [9].

Both of these perspectives belong to a wide model of providing health care. Following this systems view, consumer is the one who receives an output of a process; a process is any set of actions that transform an input from a supplier into an output evaluated and used by consumer, the benefit of this output being always judged by the consumer and never by the persons involved in the process [10]. In health care, the concept of consumer includes not only the patients, but also the physicians and the nurses who interact with the patients with the common objective of benefiting the patient, reducing her pain or improving her health status. Other hospital employees, the payers and the society are also seen as consumers. Every health care provided can be seen as a string of processes involving relations between suppliers and consumers of care.

PROJECT DESIGN

Health care delivery is very complex and unique in various aspects. A careful understanding of the way care is provided helps us in the development of health organization systems, in order to continuously improve such care. Doing so, we need to focus our work on health care consumers, on their need and expectations and on what is being done to fulfill these needs [11].

In this project we followed the Hospital Quality

Trend: Customer Judgment Systems, developed by the Hospital Corporation of America Quality Resource Group and the guidelines presented by Nelson *et al.* [12].

Its workplan follows two main areas. The first one follows closely patients' perspectives when they evaluate the care provided. Patient satisfaction has had an enormous recognition and valuation in the last decade, and in this paper we propose a measurement instrument to assess it (IAQH: Dmc).

In each period of 90 days, we will select a random sample of 300 patients from those discharged from the hospital. To these patients, we will send a questionnaire asking questions regarding their most recent hospital stay and including dimensions such as:

- admission
- daily care
- information
- nurses
- doctors
- other staff
- living arrangements
- discharge

The second area presents the quality definition and assessment using the perspective of the providers. In this paper we propose two instruments (IAQH: Med e IAQH: Enf) which aim at assessing the hospital as a workplace where patients receive care.

Physicians and nurses will be asked, once every other year, to rate the hospital where they work. This includes dimensions such as:

- nursing staff
- administrative staff
- medical records and clinical information
- efficiency in scheduling patients
- management of emergencies
- work space and equipment
- selected features of the hospital
- discharge process
- pay and benefits
- overall work satisfaction

Ultimately, our goal is to have a valid and reliable system to capture the consumer voice which will be used as a decision tool for a hospital to manage the quality of the care provided.

Each of the consumer groups used has its own specificity not only in terms of instruments used, but also in terms of the administration of the questionnaire and the sampling plan.

However, in a more generic view, we may say that this project has four phases of development (the purpose of this paper is only to describe the first two phases): (i) planning; (ii) pilot test; (iii) revision; and (iv) implementation and improvement.

In the planning phase, we performed a literature review on definition and measurement of quality of care in hospital settings. We also conducted focus groups and personal interviews with representatives of each group of consumers. The purpose of this phase

was to obtain dimensions considered by the consumers as the most important when they assess quality. We also aimed at identifying specific attributes within each dimension.

In the second phase, we designed a questionnaire tested only on the consumers of a medicine department and surgery department. Power analyses, data collection and statistical data analysis were also performed at this stage. This test has three main goals, namely the acceptability and utility of the system, the differentiation between different types of units, and reliability and validity of the instrument. During Sep'93, we will ask 30 patients, 15 physicians and 15 nurses and by the end of the year we expect to obtain the first results.

After these two first phases, we plan to have had deep discussion with a set of representative persons for each group, in order to interpret the results and gain some knowledge about the way people answered. We will also perform a wide dissemination of the results all over the hospital.

The system (questionnaires and sampling) will then be revised, improved and implemented to a more significant set of departments. The various departments will make use of the IAQH systems through regular trend reports.

CONCLUSION

Regarding the measurement of quality of care, the conditions of the settings where the care is provided are also essential. It is important to study the kind of providers, the norms of health policy, local rules, the processes and work methods, and finally, the physical characteristics, the equipment and materials in place. As the locus of the delivery of health care is part of a wider social context, some other aspects are also considered important indicators of quality, good sources of variation and deserving to be studied, such as economic and social policies.

Any measurement system designed to be an instrument to support the continuous improvement of quality should take into account these indicators of quality [13]. Assuming that the improvement of the health of a population is a social need for health care, some authors defend that it is correct to consider three main blocks in the quality improvement process.

Each instrument IAQH intends to be a valid and reliable tool to measure quality. The results obtained may be used for several purposes such as to identify priority areas to improve and monitor quality trends. We expect to deliver the various types of results in the following way: The trimestrial trend analyses will be sent to the Hospital Administration Board, to the Quality Committee and to the departments. Subjective comments will be sent to the respective department leaders for follow-up.

Understanding the process it is usually a good tool to identify the sources of variation, especially the

undesirable ones and to reduce the variations of the output. Using statistical and scientific approaches we aim at obtaining a "profound knowledge" about health care consumers, about their knowledge and about the process in which they are involved.

It is also a way to preview future variations and to initiate actions to reduce them. Our ultimate goal is to have happier consumers, more participating providers, and less waste due to process management.

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