PROMOTING AND EVALUATING TOTAL QUALITY MANAGEMENT IN NURSING DEPARTMENT OF HOSPITAL

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ABSTRACT

Improving management has become an important issue for Japanese medical institutions, while treatment fee reductions and the need to control soaring medical expenses have posed financial problems. In response to this situation, the TQM (Total Quality Management) business model has attracted widespread attention. Little research has been done on TQM's effects on the entire operational process or on whether concrete improvements have been made.

This study examines a case of TQM's long-term impact on medical facilities. It discusses the entire TQM process and its individual stages, including the identification of problems, the proposal of TQM-based solutions, and the evaluation of those solutions.

Keywords: TQM, Nurses, Medical institutions, HRD

INTRODUCTION

In Japan, there is a focus to improve medical management by reducing treatment fees and controlling spending in medical institutions; there is an urgent need to improve management and ensure quality medical services.

For example, the Health, Labor, and Welfare Ministry has highlighted cases of improved management in small-and-medium-sized hospitals [1], and the Organization of Japan's medical management experts have created human resource development programs [2]. The 2005 operation policy of the Hospital Administration Bureau reported the need for balanced reform "from the patient's standpoint," "from the business process standpoint," "from the

learning and growing standpoint," and "from the financial standpoint."

Hiring capable employees and providing the necessary amenities and cutting-edge medical care are necessary to ensure high quality specialized medical treatment. In addition, patient services must be coordinated between patients' homes and their medical institutions, requiring the proper delivery of processes such as publication, transportation, check-in at the front desk, and the provision of meals and baths. Medical institutions provide effective care for patients and their families by offering not just high-quality medical treatment but also services without "unreasonableness, inconsistency, or waste."

In the manufacturing industry, early quality improvements occurred on company-wide bases. However, few studies have examined quality improvements in the healthcare field as a whole. This study shows that the quality of medical care can be divided into three categories: quality of staff, expertise, medical service, and any combination of these. Few studies have been conducted on improvements in work quality among staff or in interdivisional cooperation, and, while many studies have examined work quality in individual medical departments, little research has been done on service quality in general.

This research examines a case of long-term TQM activity in medical facilities by using a psychological metric.

THE NECESSITY OF IMPROVING MEDICAL QUALITY

Service quality can be defined as the performance and outcome of work done by onsite staff that contributes to customer value. Accordingly, service quality improvement is driven by the value created by the onsite work performed by staff members who share a sense of purpose through the mutual reinforcement received from team activities and thus experience self-realization and self-development. Such a staff finds significance in working for their own welfare while also contributing to society by consistently offering services that meet customer expectations.

The results of studying service quality improvement allow workers to enhance their motivation and thus serve as an investment in improved quality of service, ultimately strengthening quality management. For example, the skilled hospital staffs that routinely attempt to predict patient and equipment failures and thus prevent accidents are the fruit of the time-consuming, face-to-face, and hands-on skills training that is unique to Japan.

However, these staff has recently become unable to hand down their know-how (or tacit knowledge) because of the excessive responsibilities caused by understaffing; inexperienced workers lack the necessary diagnostic technology, which disrupts their work and prevents them from improving the quality of their care.

The authors believe that staff members must change their conventional approach, based on simple labor operations, and shift to a new paradigm of intelligent service operations, which will be more motivational.

This study explores the improvements needed in the work process, with a focus on improving

human resources development.

Many studies on ES (Employee Satisfaction) [3-5], information sharing [6-9], and quality management [10, 11] in manufacturing have been conducted. However, few studies have investigated the effects of information sharing in hospitals or have used real-life examples or case studies.

ISSUES FOR HOSPITAL MANAGERS

A staff of eight (comprising doctors, occupational therapists, social workers, nurses, and administrators) at a hospital in Saitama have adopted the Relational Diagram approach to improve management. Staff members listed their job-related problems on 35 purpose-designed cards (Figure 1). The cards were then analyzed and the problems classified into seven major categories: busyness, staff mentality/operational level, linkage, hospital system, recruiting staff, development of human resources, and information sharing. As we found that the nurses had the greatest impact on the improvement of hospital quality, we focused on nursing issues.



Figure1. The Relational Diagram of issues for hospital managers

IMPROVING NURSES' WORK PROCESSES

Listed below are the steps in the TQM process.

- 1) Problem extraction: nurses list their problems on sticky notes and classify them into several categories.
- 2) Suggestion of solutions: nurses discuss and prioritize potential solutions.

- 3) Preparation of the solution: they update the manual for new recruits.
- 4) Introduction of the solution: they conduct training using the revised manual for new recruits.
- 5) Evaluation of the effects of the process.

Five other staff members (nursing managers) who were also following the Relational Diagram approach to improve management listed their job-related problems on 73 cards that were then analyzed (Figure 3); these problems were classified into nine major categories: mental, staff mind, admission, linkage to patient, linkage to doctor, development of human resources, discharge, duty, and communication.

These staff members always refer to the Relational Diagram when attempting to solve their problems. After deciding on a solution, they update and improve the OJT manual for the benefit of new recruits.

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Figure2. The Relational Diagram of issues for nursing division

The main changes made to the manual were the following:

- 1. Improvement of the floor map.
- 2. Clarification of hospital duties.
- 3. Clarification of applications.
- 4. Identification of new recruits' minimum duties.

ANALYSIS THROUGH A PSYCHOMETRIC SCALE

We evaluated the staff's TQM process, focusing on activity that occurred before August 2011 and after May 2012.

The Generalized Self-Efficacy Scale

The results plotted on the Generalized Self-Efficacy Scale are shown in Figure 4, with the

case nurses denominated alphabetically from "A" to "E." A declined from 75 to 73; B declined from 66 to 59; C declined from 66 to 55; D appreciated from 68 to 70; and E appreciated from 84 to 87.



Figure 3. Variation of the Generalized Self-Efficacy Scale

Self-Esteem Scale

The results plotted on the Self-Esteem Scale are shown in Figure 5. A declined from 28 to 27; B declined from 30 to 29; C declined from 27 to 24; D appreciated from 33 to 34; and E appreciated from 27 to 37.



Figure 4. Variation of the Self-Esteem Scale

DISCUSSION

An examination of the Generalized Self-Efficacy and Self-Esteem scale results for the period before and after the staff's TQM process shows that both scales either remained unchanged or

declined, yet nurse E appreciated from 84 to 87 on the Generalized Self-Efficacy Scale and from 27 to 37 on the Self-Esteem scale. Nurse E was the only member who had undergone training using the revised manual before the scales were measured. In her free description questionnaire, nurse E stated that the manual made it easy for new recruits to understand their duties. E appraised the training highly; thus, both her scales appreciated.

The other four nurses gave positive feedback in their free description questionnaires. They were able to share information through the process of improving the training manual. This in turn improved interpersonal relations, considered a significant factor in occupational stress. This improvement made the staff more efficient because they interact frequently.

CONCLUSION

This study has examined a case of a medical facility's long-term TQM experience. Nurses at a hospital in Saitama used the Relational Diagram approach to improve their work processes by proposing and implementing a solution concerning the manual for new recruits. Onsite staff members solved their own problems and improved their efficiency, thus producing a continual quality improvement. Future studies will extend our examination of the nursing division while also considering other divisions.

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