Poland: Quality Monitoring of Therapeutic Processes in a Small Treatment Center for Children

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Abstract: This article presents the case of the first ISO 9001:2000-certified small healthcare organization (the Center for Therapy and Rehabilitation) providing therapeutic and rehabilitation services for disabled children in Northern Poland. Elements of the process-oriented healthcare quality system implementation, initial benefits, and the organization's quality system structure and process descriptions are described. Particular attention has been paid to assumptions and methods used in monitoring of therapeutic processes at the Center. The initial benefits of the system are also presented.

Key Words
accreditation
peer review
quality improvement

Healthcare quality management principles are increasingly recognized and appreciated, particularly in the transformation of an unstable Polish public services sector, which includes healthcare. These principles foster a customer-oriented cultural change and serve as the underpinnings for effective process-oriented management. Although the idea of ISO 9001:2000 quality management system (QMS) implementation in the Polish healthcare sector is not new, it has typically been reserved for large organizations—mainly hospitals and large private clinics. Thus, the QMS implementation initiative by the Center for Therapy and Rehabilitation (CTR) in Kwidzyn (a mid-sized town in Northern Poland) may be considered a pioneer initiative.

CTR provides a wide range of highly specialized services for disabled children and their families. Patient care in CTR is conducted in a comprehensive and holistic manner, supporting the physical, emotional, social, and communication development of the patient. As the first organization of its type in Poland, CTR promotes the augmentative and alternative communication method. CTR was established in 1993, and among its 15 employees are specialists in neuro-speech therapy, psychology, physiotherapy, pedagogy, medical rehabilitation, neurology, information technology, and administration. Approximately 400 short- and long-term patients are treated at this small center annually.

In 2002 CTR's director decided to implement the ISO 9001:2000 QMS. The project was supported by the Umbrella Project (part of the United Nations Development Program, or UNDP) and local administrative authorities. The author of this paper, as the Umbrella UNDP consultant, supported the implementation of QMS, using a methodology designed for small organizations (Grudowski, 2003).

Planning CTR Process Management

Process management, one of the basic principles of quality management, creates natural foundations for a simple and effective ISO 9001 QMS. The size and the type of the organization determine the structure of the system and its implementation strategy.

The QMS implementation methodology at the CTR consisted of four stages:

- process planning—identification and classification of processes
- process implementation
- monitoring of the processes and data analysis
- process improvement.

These steps parallel W. E. Deming's classic "Plan-Do-Check-Act" improvement model.

The identification and development of a new approach for CTR management activities and the presentation of this approach to the personnel played a critical role in the successful QMS implementation.

The initial step in implementing the QMS was the identification and classification of processes at the CTR. These processes were divided into three main categories:

Management and improvement processes by which management activities and contin-

uous improvement of the organization are implemented. These processes comprise such activities (subprocesses) as the following:

- an internal quality audit
- corrective and preventive actions
- management review—all typical elements of ISO formalized management systems.

2. **Clinical operations processes** by which the center realizes main service functions in the area of child therapy and rehabilitation, consisting of the following:

- marketing and contract with the client
- medical diagnosis
- therapeutic processes
- rehabilitation processes.

3. **Support processes** by which the center monitors functions including the following:

- administration
- infrastructure control
- documents and records control
- purchasing.

Figure 1 presents the interrelationship of the three main *categories of processes* that form the CTR's QMS.

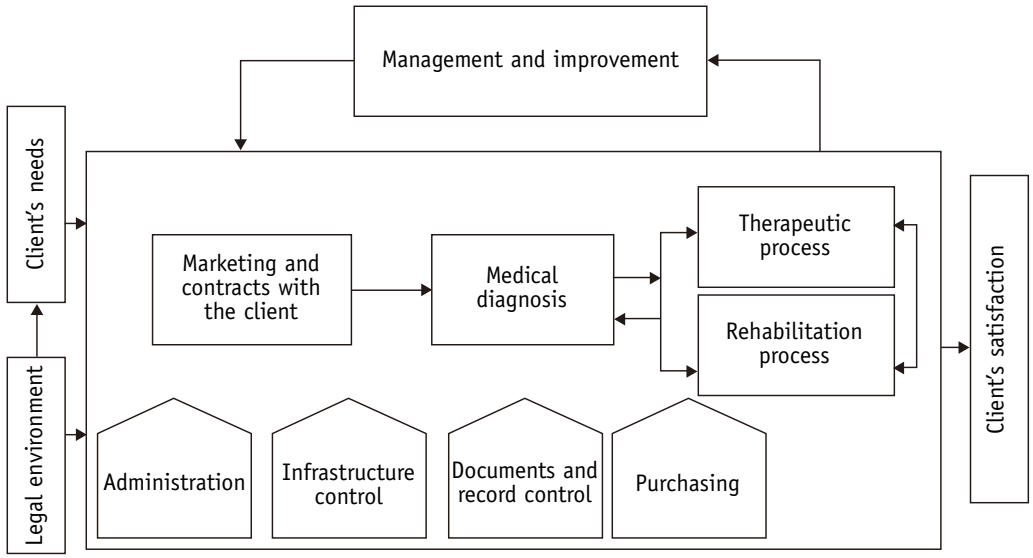
As a result of the identification process, the CTR's QMS was found to consist of nine main processes. The arrows in Figure 1 indicate the interrelationship among these main processes. Clinical operations and support processes are presented as the system's foundation. The management and improvement process creates the feedback loop that emphasizes the dynamic nature of the system. The continuous nature of the system allows continuous improvement.

Following the identification of the main processes, the next step was to determine subprocesses. As a result of this step, a detailed map of the system was created to show the functional level of processes that should be controlled according to ISO 9001 requirements. **Figure 2** is a tree diagram depicting the subprocesses for one of the main processes at the CTR, therapeutic processes.

After identifying the main processes, ISO 9001 training was conducted for all CTR personnel. Particular attention was paid to explaining the relationship between the ISO 9001 standard requirements and the CTR process structures. Following this training, process owners were assigned, which was a key step in building a process-based QMS. The process owners' first task was to develop the most effective method of describing their processes. It was decided that all operational processes would be presented as flowcharts showing the activities in the process. To ensure eventual success of the system, it was important that other employees, in addition to the process owners, were involved in the preparation of these flowcharts.

The commitment and involvement of all employees were crucial to getting the staff to

Figure 1. Interrelationships Among CTR's QMS Processes



Source: *CTR QMS Manual, 2003*

adopt QMS—a key success factor for the project. Furthermore, this teamwork resulted in the identification of other issues. For example, it was discovered that an identical sequence of activities could be applied to different clinical operations subprocesses. Standardizing these activities had a very positive effect on controlling the variability of a subprocess. It is expected that flowcharts will be prepared for other groups of CTR processes in the near future.

To provide a standardized methodology for the control of the CTR's processes, documents called process guides were developed. These guides contain all the necessary information for clear and effective control of a process including the following:

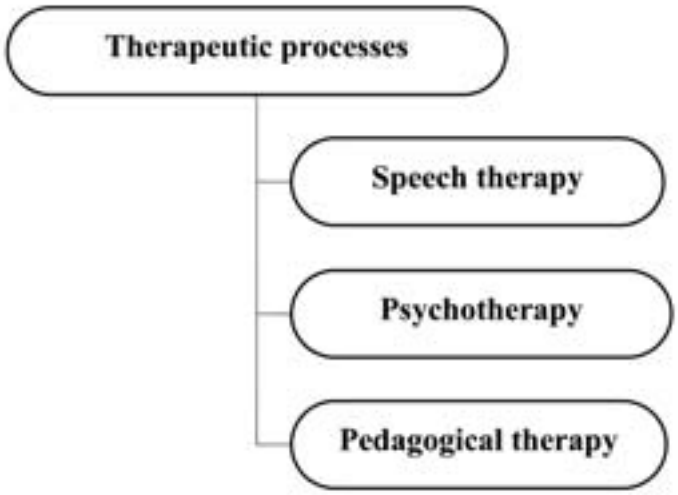
- name of the process
- process owner
- objective(s) or purpose(s) of the process
- expected process target(s) or outcomes and measures used to monitor them
- method(s) and the frequency of monitoring
- method(s) used for data analyses
- documents used to show evidence of the effectiveness of the process
- forms used in collecting data about a process
- records created during process completion
- comments about the process.

All process guides and most of the documents at the CTR exist in an electronic format, which simplifies the accessibility of documentation for all personnel. This simple and clear method of the QMS documentation prevents most of the problems associated with management of paper documents and records.

How to Monitor Therapy

A process-oriented QMS requires continuous monitoring to establish the degree to which a process objective and expected targets or outcomes were attained. Varying characteristics of clinical operations processes delivered in the CTR make it impossible to determine one universal, measurable target for a given type of therapy. For some patients a desired result of a therapeutic process is to gain new abilities in the shortest possible period of time. For others, it is to slow or minimize the inevitable degradation of their condition. The most challenging task for CTR personnel was to develop explicit, measurable, and objective methods for monitoring therapy progress. The main obstacle was the shared opinion of personnel that therapy could not be measured.

Figure 2. Subprocesses of a Main CTR Process



To define the task of monitoring clinical operations, the CTR team made the fundamental assumption that every case was unique and could not be compared to others because of the unique features and abilities of each child. The same assumption was applied to the therapy outcome for each patient, which is also unique in every case.

Everyone at CTR agreed that despite the various difficulties, it was necessary to establish a monitoring system for therapeutic activities to assess the level of initial abilities of a child, progress in therapy, and final outcomes of completed therapy. The introduction of such a new monitoring methodology was gradual, performed in cooperation with therapy specialists and process owners and based on continuous improvement principles.

The goal for therapeutic processes was to implement and validate the new set of monitoring tools by the end of 2003. For each of the therapeutic processes, a number of monitoring tools—forms, tables, and matrixes—were prepared. These tools were designed with attention to various criteria—patient condition and age, length of therapy, complexity of therapy, and duration of rehabilitation. For example, 25 diagnostic tools were designed for speech therapy, 12 for psychotherapy, and 14 for pedagogy.

Although some aspects of process monitoring are quantitative, such as the number of patients per therapist per month, the length of a procedure, and the number of changes (lev-

els) of therapeutic procedures of a certain type, a descriptive scale should be used for other facets of the activities. For example, to assess a process and its result, one must analyze relevant records and compare them to a descriptive standard which, in turn, may receive a compliance rating (e.g., "1" or "A").

Recording the date of the initiation and ending of consecutive levels of therapeutic procedures for each child was an innovative element applied in some of the monitoring forms. As a result of monitoring these data, process owners gained information on how effective the therapy was and what progress had been made (i.e., what level of quality of service had been achieved); thus records may now be regularly reviewed to analyze a more accurate history of the therapy provided. Outcomes may also be discussed during weekly CTR meetings to create the potential for the eventual improvement of the entire management system.

Conclusions

CTR's QMS was ISO-certified in October 2003. The evaluation by an external auditor confirmed that the system was designed well and implemented effectively. As a result of QMS implementation, employees believed that the system enhanced the potential of their work and provided better understanding of everyone's contribution toward effective management and improvement, clinical operations, and support processes. All staff members accepted their new process-based system and felt more confident as a team. Processes that were initially deemed not able to be monitored became controllable, predictable, and amenable to continuous quality improvement.

Opinions of the clients of the CTR were also very positive. Patients and their families realized the benefits of better planning of treatment procedures and appreciated the new client-oriented attitude and the more effective collaboration during therapy. It is hoped that this example will be inspiring for other small healthcare organizations—particularly those that view their quality system as an opportunity for continuous improvement.

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