

# Practice of Total Quality Management on Paediatrics Care Services and its Effectiveness with reference to selected hospitals of Kolkata

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**Abstract:** Implementing Total Quality Management (TQM) in paediatric healthcare poses challenges, but research indicates that it can result in substantial enhancements in both the quality of the system and the performance of individuals. However, implementing TQM in hospitals is more challenging than doing so in other service sectors since determining what constitutes quality in the context of a hospital is complicated. The aim of the study is to assess the effectiveness of Total Quality Management. The case study is case representation is about a patient 1 years old female having no medical history, referred to pediatric nephrology for evaluation of microscopic hematuria. The results depicted that the rural and urban patients, 120 urban and 130 rural follow health care strategies and practices in the department of pediatrics. The healthcare organization in urban and rural areas successfully adopted effective healthcare strategies and practices in Pediatrics and its effect the patient service care quality. Key success factors by the nurses are essential in determining the likelihood of success in implementing Total Quality Management (TQM) in pediatric healthcare settings. Based on the aforementioned data, it has been concluded that the hospital adopted the pediatric care service as part of their entire healthcare offering. Children who are suffering with a serious disease have access to specialist medical care in the form of pediatric care. Ongoing efforts are being made to identify and include these elements to optimize the advantages of TQM. The initial level of care was called fundamental care, and it was here that the term "quality" linked to concerns such as communication, privacy, empathy, and responsiveness.

**Keywords:** *Total Quality Management, paediatric, healthcare services.*

## INTRODUCTION

Total Quality Management (TQM) is now recognized as a crucial method for maintaining excellent healthcare standards, especially in hospitals. TQM principles, which originated in the manufacturing sector, are now being applied more frequently in the service business, such as healthcare, due to a worldwide focus on quality standards. In India, the use of Total Quality Management (TQM) in healthcare has been relatively recent [1]. However, hospitals around the country, which have modern facilities, are progressively giving importance to implementing TQM to assure the provision of the best possible healthcare services for patients.

The concept of quality in pediatric healthcare covers multiple elements, which reflect the complex nature of delivering care. This encompasses efficacy, which indicates the effectiveness of treatments and interventions; efficiency, which pertains to the optimal utilization of resources to achieve desired outcomes; technical competence, which ensures that healthcare professionals possess the necessary skills and knowledge to deliver care; safety, which ensures the well-being of patients and the prevention of adverse events; accessibility, which guarantees equitable access to healthcare services; interpersonal interactions, which emphasizes respectful and compassionate communication between healthcare providers and patients/families; continuity, which ensures smooth coordination of care across various healthcare settings; and facilities, which encompasses the availability of suitable infrastructure and equipment [2].

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Assessing and adhering to standards are necessary at several levels to determine the criteria for excellent care in hospitals, especially in pediatric departments [3]. Nevertheless, there are ongoing difficulties in providing exceptional healthcare to pediatric patients. Research suggests that a considerable proportion of children receive inadequate care as a result of inaccurate evaluation, diagnosis, and treatment by healthcare practitioners [4,5].

Primary care and community-based therapy play a crucial part in pediatric healthcare, alongside hospital-based care. Accessing top-notch medical care for children at specialized healthcare facilities is crucial for enhancing the overall health outcomes of pediatric patients [6].

The core of Total Quality Management (TQM) in pediatric care is centered around a patient-focused approach. Kolkata hospitals must to customize healthcare services in order to cater to the distinct requirements and preferences of pediatric patients and their families [7]. Emphasizing the comfort and active participation of pediatric patients has a beneficial impact on their rehabilitation and general well-being [8].

When it comes to evaluating the quality of pediatric emergency care, there are unique challenges that are associated with the unique setting, children's dependency on others, their greater vulnerability, requires that vary according to age and development, distinct epidemiology, small numbers of patients with specific conditions, and a lack of evidence due to the limited number of studies available on urgent or emergent conditions in children [8]. The majority of measures have been established for adult care and subsequently extrapolated into paediatric practice. Additionally, there is a dearth of measures that are specifically designed for acute paediatric care. Paediatric emergency with important challenges like bloodstream infections, ventilator-associated pneumonia, and handoff communication in pediatric care services, implementing Total Quality Management (TQM) in Kolkata hospitals requires a thorough and all-encompassing approach. The cornerstone of effective leadership is a strong commitment to Total Quality Management (TQM), as administrators must acknowledge its importance in improving patient care and devote resources accordingly [9]. Implementing big changes across the organization becomes tough without strong leadership backing [10]. The objective of the study is to practice of Total Quality Management on Paediatrics Care Services and its Effectiveness with reference to selected hospitals of Kolkata.

## CASE PRESENTATION

Patient with 1 years old female of the role of TQM in improving patient outcome has no medical history, referred to pediatric nephrology for evaluation of microscopic hematuria. The patient had a marginally elevated urine protein to creatinine ratio. Upon further evaluation, she had an unremarkable physical exam with blood pressure and serum creatinine levels within normal ranges.

However, family history revealed a history of microscopic hematuria in the patient's mother and maternal aunt.

Patient has been monitored closely for progression of symptoms, such as proteinuria or hearing loss. After 2 years of follow-up, patient's urine protein to creatinine ratio increased, along with an ambulatory blood pressure monitoring that revealed hypertension. Patient was started on lisinopril for disease progression. She has remained clinically asymptomatic without any episodes of gross hematuria or swelling and continues to be followed by Pediatric Nephrology of hospital of Kolkata.

Children who are suffering with a serious disease have access to specialist medical care in the form of pediatric care. Pediatric care focuses on a child's physical growth and mental development, as well as the child's nutrition, illness prevention, and treatment of existing diseases. This is intended to improve not just the living situations of the kid, but also those of the family as a whole.

To put it another way, it provides the opportunity for the child and the family to gain the mental and physical strength that is necessary to continue a normal life. Throughout the whole of pediatric care, the patient's family always is considered to be of the utmost relevance. As a result, it is reasonable to state that participants have a comprehensive understanding of the significance of paediatric care services of hospitals of Kolkata within the context of the health care industry as a whole. It has been determined that hospitals make several kinds of physicians available to offer treatment for children. These physicians specialize in pediatric care. It has come to our attention, as a result of the information gathered, that there are

several subspecialties within the field of pediatrics. There are general pediatricians who provide primary care and attend to the general needs of children, and there are also pediatricians who specialist in a particular subject area or field of study.

All of these needs can be met with the assistance of professionals who specialise in the health of adolescents. Your child may be referred to a paediatric cardiologist, which is a subtype of cardiologist who specialises in diagnosing and treating heart problems in children, if the paediatrician caring for your child expresses any concerns about the state of your child's cardiovascular health. These medical experts have extensive knowledge and specialised training in the evaluation of children who may have been neglected or abused in the past. If your child is in an unstable critical state as a result of a catastrophic illness or injury, a hospital-based paediatric critical care specialist will be dispatched to provide any necessary specialised treatment. This may include any treatment that is deemed necessary by the specialist. As a direct consequence of this, it is now common knowledge that hospitals make available to their patients a variety of competent medical professionals who offer services that are pertinent to the care of children. The vast majority of people who took part in the survey were of the opinion that the hospital provided its patients with paediatric care services using an extensive variety of techniques and practices.

## Recommendation

1. The healthcare organization in urban and rural areas adopted effective healthcare strategies and practices in Pediatrics and its effect the patient service care quality

**Table 1.** Urban & Rural Area on practicing healthcare strategies and practices in Pediatrics.

| <b>Do your hospital specially consider any healthcare strategies and practices ?</b> | <b>Frequency</b> | <b>Do Your hospital specially consider any healthcare strategies and practices</b> | <b>Frequency</b> |
|--------------------------------------------------------------------------------------|------------------|------------------------------------------------------------------------------------|------------------|
| Yes                                                                                  | 120              | Yes                                                                                | 130              |
| No                                                                                   | 60               | No                                                                                 | 50               |
| Can't say                                                                            | 20               | Can't say                                                                          | 20               |

On the basis of the aforementioned findings, it has been determined through analysis that the hospital employed and continues to use effective methods and practices in order to provide its patients with effective healthcare. Furthermore, it has been determined that there are numerous types of medical practices, such as private practice, group practice, major HMOs, etc. A physician who chooses to work in private practice does so alone, without partners, and frequently with only a few support staff. Therefore, this type of practice is ideal for doctors who wish to own and operate their own practice independently.

When asked whether or not they are informed with pediatric care services and whether or not their hospital offers such services to patients, Majority participants replied positively.

Based on the aforementioned evidence, it has been concluded that the hospital adopted the pediatric care service as part of their entire healthcare offering. Children who are suffering with a serious disease have access to specialist medical care in the form of pediatric care. Pediatric care focuses on a child's physical growth and mental development, as well as the child's nutrition, illness prevention, and treatment of existing diseases. This is intended to improve not just the living situations of the kid, but also those of the family as a whole. Children under the age of 18 have access to pediatric care, which is given by a team of physicians, registered nurses, and a range of other qualified medical experts who collaborate to provide

children with the proper medical treatment. In addition to addressing basic medical problems, such as abnormalities in a range of bodily systems, inherited disorders, and cancers, pediatric care also tackles difficulties particular to the treatment of preterm infants and adolescents. Care for children is a subfield of pediatrics. It relieves the symptoms of several abnormalities, such as pain, shortness of breath, tiredness, constipation, nausea, lack of appetite, and sleep disturbances, such as unpleasantness, shortness of breath, fatigue, and loss of appetite. It also relieves the symptoms of several disorders that cause difficulty sleeping, such as shortness of breath. In addition to this, it improves the quality of one's life in general.

## 2. There is no issue in TQM techniques in the Pediatric Care

According to the survey results, the healthcare organization established a tool for complete quality management. These results were derived from the data collected throughout the study. TQM is a contemporary strategic approach that is employed by a sizable proportion of them. In order to implement it, one requires certain expertise as well as favorable working environment. In certain instances, Total Quality Management was either unsuccessful or refused.

**Table 2.** Quality system on practicing healthcare strategies and practices in Pediatrics.

| Which Quality system does your hospital have? | Frequency |
|-----------------------------------------------|-----------|
| ISO 9000-2000                                 | 30        |
| SIX SIGMA                                     | 30        |
| TQM                                           | 320       |
| Others                                        | 20        |

This study examines the efficiency of overall quality management in pediatric emergency care in underdeveloped nations to learn about its current state. TQM aims to improve patient satisfaction in healthcare.

However, but also on continuous improvement and teamwork. TQM has been efficiently implemented in healthcare organizations, leading in extraordinarily positive outcomes.

As a result of these efforts, it is possible to achieve an improved quality of service, higher levels of health care quality and performance, increased levels of patient satisfaction, decreased levels of operating costs for health care organizations, increased levels of employee satisfaction, and increased levels of patient safety. The great majority of respondents to the study indicated that implementing the instrument for hospital-wide quality monitoring is extremely challenging.

Nurses buy-in is crucial to the success of the quality management system since workers have a hand in every stage of production. Successful implementation of the plans depends on timely and accurate dissemination of all relevant information throughout the company. However, there are disruptions in the line of communication that prevent positive outcomes from being achieved. Having the right Complete quality management model and system is crucial for successfully implementing the Total Quality Management in the hospital. However, the effective implementation of complete quality management in hospital healthcare systems is hampered by a lack of suitable models of whole quality management.

## 3. There is no requirement to change the current Total Quality Management system in the Pediatric healthcare system

When Total Quality Management is correctly implemented in healthcare institutions, it will result in substantial improvements in service quality, enhanced patient output and efficacy, and increasing levels of satisfaction among both internal and external customers. Investigations investigating the TQM's potential medical applications have been conducted

in a variety of situations around the globe. The research included a vast array of subjects, including the effectiveness of medical equipment and hospitals, as well as quality management.

**Table 3.** Healthcare strategies adopted by hospital in Urban and Rural areas in the department of pediatrics.

| <b>Do your hospital specially consider any healthcare strategies and practices?</b> | <b>Frequency</b> | <b>Do Your hospital specially considers any healthcare strategies and practices</b> | <b>Frequency</b> |
|-------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------|------------------|
| Yes                                                                                 | 120              | Yes                                                                                 | 130              |
| No                                                                                  | 60               | No                                                                                  | 50               |
| Can't say                                                                           | 20               | Can't say                                                                           | 20               |

On the basis of the information presented in the preceding section, it has been established that the TQM implementation that has been carried out in the Indian healthcare business has contributed to the development of the TQS framework within the Indian context. The discussion on the quality of treatment has been ongoing for some time, but it has not received the attention it deserves; the importance of delivering high-quality care must be ingrained in the hospital's environment and culture.

It is taught in undergraduate and graduate programs, seminars, continuing medical education programs, and on-the-job training for healthcare workers. Total Quality Management, often known as TQM, is a management strategy used by healthcare providers to enhance the responsiveness, flexibility, and overall competitiveness of the facilities and services offered. It is a strategy for reducing waste that entails including everyone in the process of making improvements to the way things are done to increase efficiency. Evidence suggests a link between TQM characteristics and better outcomes and higher quality in paediatric care.

## DISCUSSION

TQM is a contemporary strategic approach that is employed by a sizable proportion of them. In order to implement it, one requires certain expertise as well as favorable working environment [11]. In certain instances, Total Quality Management was either unsuccessful or refused. Level knowledge of managers is a means to enhance information, learning capabilities, interpersonal and behavioral patterns, and an employee's ability to do a work correctly and effectively. Level knowledge is a method for enhancing managers' level knowledge [12].

Previous information led to this conclusion. TQM is a proactive effort by enterprises to enhance structural, architectural, behavioural, and methodological methods to provide to the end customer, with an emphasis on uniformity, quality improvements, and competitiveness improvements [13]. Quality Management (TQM) encourages top-down and bottom-up engagement in improving quality of products and services. With these quality and management solutions, you can develop your business while reducing inefficiencies. Quality assurance is becoming effective accomplishment management tool, therefore this sort of research is relevant to both researchers and practitioners [14].

To guarantee the effective implementation of Total Quality Management (TQM), the organization is primarily responsible for educating and enlightening employees in charge of TQM [15]. Whether Total Quality Management (TQM) is a brand-new solution or an already-established approach for an organization, it is crucial that all of its members have access to relevant information and an awareness of its philosophy, basic values, objectives, goals, and tools. This is due to the fact that TQM is a framework that may be employed in a range of circumstances, including those in which it is a brand-new solution or an existing approach [1]. Total Quality Management (TQM) is both a technique and a strategy that may include both management and workers in the continuous improvement of the quality of the produced goods and services. It is a

mix of quality and administrative tools with the objective of expanding the firm while eliminating losses caused by inefficient business procedures [14,15]. van Kemenade & Hardjono, (2018) analysis found that 70% of the variation in the application of TQM can be achieved by implementing the TQM rules [16].

Based on the results of the aforementioned survey, it has been determined that a lack of leadership dedication, poor and ineffective leadership, a shortage of resources and resources, the absence of an integrated TQM model, inadequate staff training, low teacher prestige and morale, and an insufficient level of collaboration among the staff are all barriers to successful TQM implementation in healthcare organisations. According to Laureani & Antony, (2019), the survey's intended respondents were the 425 staff members at the county's five public hospitals. Stratified random sampling was used to pick a total of 205 respondents for the sample [17].

The second most significant hurdle was a lack of training in available to all members and communications strategies, quality improvement abilities, issue identification, and the problem-solving process [11]. TQM has been introduced at a pace of roughly less than 60 per cent in Jordanian hospitals. The consumer priority was the most applied theory, and 54 continuous management was the least applied [17].

For a healthcare organization's activities, services, and procedures to be of high quality, its management must be aware of the necessity and necessity of cultural transformation. If a company's staff are not adequately taught in the anticipated processes, it will never be able to reach its full growth potential [3]. Due to the quick changes in the corporate environment, competition, technology, and other management concepts, education and training are crucial and should be a continuous process for all employees. This is due to the fast changes that are occurring. Saffar & Obeidat, (2020) suggested that despite the fact that the private sector is responsible for over 74% of the total spending on healthcare in the country, it has only very lately emerged as a dynamic player in India's healthcare sector, bringing the country both national and international prominence. Apollo Hospitals, Wockhardt Hospitals, Fortis Healthcare, Max Healthcare, Aravind Hospitals, Manipal Group, and Escorts Group are just few of the well-known names in the private sector when it comes to hospitals [18].

Regular training programs are essential, and their success is boosted when senior management leads TQM training sessions and other training sessions that are equivalent to TQM training sessions [5, 11]. Organizations must be structured in line with the actual demands of the business, and unsatisfied internal customers as well as isolated and irritated personnel might impede the successful implementation of TQM.

## CONCLUSION

In brief, nursing staff face critical situation due to inadequate facilities and infrastructure in the hospitals and they are answerable to many queries of patients and relatives which creates tension. The frequency of the TQM techniques in the Pediatric Care in the healthcare strategies and practices are 320, whereas the frequency of other strategies are only 20. The inadequate physical safety and security system leads to threat for personal safety, absconding of patients and loss of material resources which add more tension to the nursing. Even though the hospitals have precautionary measures, training and treatment methods with regard to health hazardous and infectious substances still the nursing staff have high scope for getting work related risk. The results depicted that the rural and urban patients, 120 urban and 130 rural follow health care strategies and practices in the department of pediatrics. The healthcare organization in urban and rural areas successfully adopted effective healthcare strategies and practices in Pediatrics and its effect the patient service care quality. The hospital service rules such as leave, transfer and promotions have provided very limited benefit to the nursing staff. The nursing staff professional development opportunities are very limited and there was no scope for them to get such training during their work hours. The nursing profession receives respect within the hospital, however, society does not accord it its due dignity. The supervisory support is not up to the expectations of the staff. Decision-making autonomy is severely restricted. The nursing staff have lack of confidence on the management which results in compromising their demands, and there is a possibility of demonstrating negative attitude and further it can bring some negative effect on the patient care process. The nursing staff consider their service quality is higher in spite of various constraints they face during the work process. Overall the physical facilities and conditions are bringing tough challenges to the nursing staff in the current work environment.

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