HOSPITAL ADMINISTRATIVE REVIEW

IMPLEMENTATION OF CONTINUOUS SERVICE IMPROVEMENT CONCEPT IN HEALTHCARE ORGANIZATIONS

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INTRODUCTION

Health is a state of complete physical, mental and social well being and not merely an absence of disease or infirmity that leads to the ability to lead a socially and economically productive life[1]. Health care includes meeting both medical and non-medical needs of the patient. It is integral to Total Quality Management (TQM) and Quality Assurance (QA) approach in quality for efficiency benefits[2]. CSI is not a new concept and originally developed by manufacturing and service industries, with substantial benefit to organizations. Its success at improving productivity over many years has led to it being adopted by health care systems in international healthcare (UK and USA)[3]. Continuous Service Improvement (CSI) is adopted for initiatives both at national level and organizational level as strategic change tool. This concept is effectively applicable in all service sector and government sponsored health care organizations, where healthcare delivery is government responsibility. Likewise, health care in defence services medical setups has a peculiar environment, where services are free and providers are accountable. Constraints of cost and resource imbalance and ever increasing patient turnover are the key limiting factors. Resultantly, hospital improvement activities are more organization/ sponsor driven, rather than patient centered. This gap necessitates introduction of CSI process in defence services and similar health care delivery system.

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DISCUSSION

CSI is one of the most important emerging directions in healthcare. It aims to provide better healthcare by improvement of processes, leadership, knowledge transfer and systems design, with a particular emphasis on lessons learnt from public and private sectors outside health[4]. CSI is a customer driven, patient centered approach which aligns the healthcare in accordance to the customer needs and expectations. It guides to create an improvement culture with involvement of every stake holder to review and make efficiency based actions for both, health seekers (patient) and service providers.

The key principle in CSI is identifying the problems of wastes in healthcare processes, duplication of efforts or issues for both patient and staff[5]. Modern day health care delivery systems and healthcare organizations are using many evidence based scientific tools for improvement in quality of healthcare. Some of much practiced tools are Continuous Quality Improvement (CQI) methodologies, including Six Sigma, Value Stream Analysis, Jidoka, Kiazen and Lean[6]. CSI in present day healthcare is promoting "Lean Principles of management", to address delays and bottlenecks[7]. In the mid-90's, James Womack and Dan Jones first coined the phrase Lean and it is their methodology which was widely adopted within manufacturing, although in many ways Lean is the wrong name for what they proposed as to most people it means 'cut to the bone' or 'devoid of excess fat' and therefore can appear very threatening.

A better name for what Lean is capable of providing to an organisation is 'Fit' (as it makes the organisation fit for purpose) or 'Flexible' (as it enables their processes to react quickly) – but Lean is the common name we now use, Lean is process improvement methodology[8]. It aims at

eliminations of waste in processes (non-value added processes) and incorporate value added process in healthcare by designing a continuous flow of work for clinicians and seamless experience of care for patients. CSI team works to achieve perfection through continuous process of improving health and reducing health inequalities. It involves health seekers, health providers and sponsors towards mutuality. It aims at delivering safe, effective and timely care in the right place by developing the workforce and empowering the staff to get the best from available resources[8,9].

"Quality in healthcare" is an integral component of CSI and is defined in accordance to both technical standards and patients' expectations. While no single statement of health service quality applies in all situations, following definition is helpful. "The application of healthcare sciences to maximize benefits for health without increasing its risks. Quality of healthcare is the extent to which the care provided is expected to achieve the most favourable balance of risks and benefits"[10].

Total Quality Management can be referred to as a quality improvement concept which renders acceptable, affordable and timely healthcare services to patients. This tries to apply zero errors, maintain a continuous error prevention program; train the healthcare providers on error prevention, reduction of delay time and provide prompt and quality services to the patient duly aligned to patient needs[11]. Hospitals and other healthcare organization across the globe are progressively implementing TQM to reduce costs, improve efficiency and provide high quality patient care. Quality is relative and people define quality in many ways[12].

Continuous service improvement (CSI) concept is firmly entwined into TQM ideology with effective and efficient service management directed at maintaining value for the customer.

In order to get to the core of CSI, it is imperative to introduce the service management and correlate the CSI to stages of service lifecycle. A service is a procedure to deliver value to customers, by facilitating outcomes as per customer expectations without the ownership of specific costs and risks. The customer purchases and uses the service, when service outcome meet their expectations[13]. The value of the service to the customer is directly proportionate to the promptness of the outcome and its ability to facilitate the customer. Service management enables a service provider to understand the services they are providing and ensure that they are aligned to the value desired by the customer. Service Management provides value to customers in the form of services through a set of specialized organizational capabilities[14]. Service management is more than just service delivery, where each service, process or infrastructure component has a lifecycle. Service management considers the entire lifecycle from strategy through design and transition to operation and continual/ continuous improvement.

The Continuous Service Improvement (CSI) is not a lifecycle stage, but a wrapper used throughout the whole service lifecycle. It has inputs and outputs for all lifecycle stages. It focuses on the overall health of Service Management within the organization[15]. CSI is concerned with maintaining value for

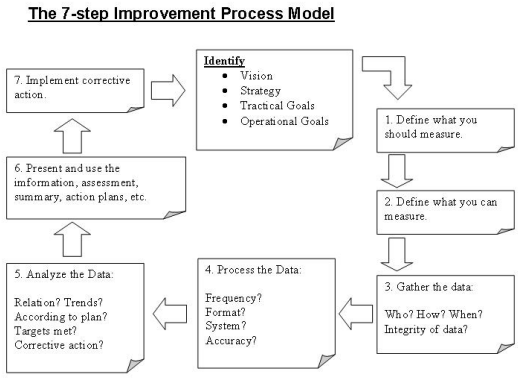

Figure: Improvement process model.

customers through the continual evaluation and improvement of the quality of services and the overall maturity of service lifecycle and underlying processes. It combines principles, practices and methods from quality management, Change Management and capability improvement, working to improve each stage in the service lifecycle, as well as the

current services, processes, and related activities and technology.

CSI defines three key processes for the effective implementation of continual improvement, 7-Step Improvement Process, Service Measurement and Service Reporting.

The 7-step improvement process covers the steps required to collect meaningful data, analyze the data to identify trends and issues (Fig)[16]. The information thus attained are to be presented to management for prioritization, agreement, and implementation of improvements. Every step is driven by the strategic, tactical and operational goals defined during service strategy and design.

Service monitoring and measurement is second key process of CSI and fortifies CSI and the 7-Step Improvement Process. It is an essential part of being able to manage services and processes, and report value to the business. Following are the four basic reasons to monitor and measure. First is to validate past decisions that have been made. Second are direct activities in order to meet set targets. Third is to justify the course of action with evidence. Fourth is intervention at right point and corrective action[17].

Lean is a customer-centric methodology best suited to interpret and deliver improvement opportunities by eliminating "non-value added" (or wasteful) activities and creating value. For example, consumer / patients and physicians benefit from improving the turnaround time of critical laboratory tests. There are seven types of wastes identified in the Lean Production System including overproduction, waiting, transportation, Motion, Inventory, Overprocessing and defects. Elimination of waste of resources in every area and every step is at the core of lean[18].

The model has measures to act as tools for learning and demonstrating improvement, not for judgment. Project teams should collect data including the number of days from referral to first definitive treatment. They should evaluate the percentage of patients with booked admissions or appointments at three key stages of the patient journey: first out-patient appointment, first diagnostic test and first definitive treatment. Data should also be collected regarding the percentage of patients who are discussed by a multidisciplinary team and the patient satisfaction or experience at several different stages along the patient journey. Its imperative to do regular reporting on monthly basis of the improvement progress, by using time series graphs known as 'run charts' or control charts[17,18].

National Health Services Grampian (NHSG) is one of the 14 health boards in NHS Scotland. The CSI NHS Grampian has achieved significant successes on various improvements and continues to focus on the key work which supports the drive for greater efficiency and productivity. CSI NHSG has justified its presence and demonstrated noteworthy success in projects with computable benefits of quality of care, service delivery and cost – three corner stones of quality in healthcare. Implementing CSI is not an easy task and requires a change in management and staff attitudes and values[19]. They should understand that continual improvement is something that needs to be done proactively, and not reactively. It is important that everyone within the organization have responsibility for identifying improvement opportunities.

Healthcare in modern day is mostly customer driven and thus focused to reduce cost and improve quality. Improvement teams set clear and focused goals. These goals thrive on clinical leadership; focus on problems that cause concern, as well as patients and staff. The aim statement should be consistent with the overall organizational / institutional goals and be relevant to the length of the project, be bold in its aspirations, have clear, measurable targets.

Outcomes are measured; such as reduction in the time a patient has to wait in order to answer this question. If a change is made, that should affect the measures and demonstrate over time whether the change has led to sustainable improvement.

CONCLUSION

Continuous Service Improvement has proven its value in helping healthcare

organization to do more with fewer resources. "Lean" forms the core of this improvement paradigm in present day international health care milieu. The benefit potential of Continuous Service Improvement and Lean in international healthcare can be translated to any health organization, if tailored to local needs and constraints.

CONFLICT OF INTEREST

This study has no conflict of interest to declare by any author.

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