Adopting ‘Lean’ Methodology In A Behavioral Healthcare Setting

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For several years, Sheppard Pratt Health System utilized the PDSA performance improvement methodology to address quality and safety issues. While many teams have been held over the years which have resulted in improvements, we identified the following problems/challenges with our PI efforts: a less than optimal level of staff awareness of our PI methodology; a need for greater participation by direct care staff throughout the system; a desire for more individual program interest in and ownership of PI activities; and difficulty consistently sustaining improvements over time. For these reasons, we decided to search for an alternative performance improvement methodology that could be implemented broadly and uniformly in our large behavioral healthcare setting.

One of the methodologies explored was the ‘Lean’ Methodology based on the ‘Toyota Production System. There has been documentation in literature regarding the use of ‘Lean’ Methodology in healthcare settings in some regions of the country, specifically in medical-surgical settings, with some very impressive results. One of the basic features of this approach is the active involvement of the direct care staff who are most familiar with the processes under review and who are in the unique position of coming up with the best solutions for improving the processes. According to the ‘Lean’ Methodology Improvement, efforts and ideas are initiated and carried out as close to the process as possible, preferably by the involved staff themselves. Processes are redesigned to reveal problems as and when they occur. Very limited literature or information is available regarding the use of this methodology to articulate or improve performance in behavioral healthcare settings. Sheppard Pratt Health System leadership made a decision to test the applicability of ‘Lean’ Methodology in our setting.

Based on our Client Satisfaction Survey data, patient and family complaints, Root Cause Analysis findings, and our daily experience with patients, we decided to initiate a pilot performance improvement effort, which would focus on ‘Discharge Planning’ as one of the areas for improvement. Review of the data revealed dissatisfaction among patients, families and community providers with our discharge planning process, an internal sense of dissatisfaction with our process among staff, and at times compromised patient safety during this important hand-off period. Specific problems in this process were- delayed or inadequate discharge planning activities, inefficient communication between the discharge coordinator and treatment team, and inconsistent handoff communication with the outside provider. Therefore, discharge
planning was one aspect of care, which was selected first to improve the quality of care and patient safety.

We realized at the outset, that we did not have clear data that comprehensively informed us about the discharge planning process, in a systematic way. We did come up with a few metrics and also
collected some baseline data as it pertained to discharge planning process prior to initiating our ‘lean’ journey.

**PROCESS:**

In 2009, Sheppard Pratt adopted ‘Lean’ methodology based on training from Pittsburgh Regional Health Initiative (PRHI), entitled ‘Perfecting Patient Care University’. This adaptation of the ‘Toyota Production System’ was chosen since it seemed intuitive, the principles were easy to grasp, it was experienced as being very practical for direct care staff to learn and adopt these tools. We also wanted to address the challenges we had faced before, which are listed above. Initially, Board members and Executive Leadership were trained. Consultants from the PRHI have been enlisted to teach various staff members the principles of this methodology and to lead ‘Kaizen’ events or ‘Rapid Improvement Events’, the first of which was the Discharge Planning Kaizen.

As part of a ‘Kaizen’ event, one first selects team members, develops a ‘Business Case’, decides on some meaningful metrics, and gathers some preliminary data that inform the planning of this event. The Event starts with an ‘Introduction to Kaizen’ after which the team members study the Business Case and Metrics in more detail. Then actual observations of the process are conducted, and one creates a ‘Current State Map’. This map then identifies and highlights ‘areas for improvement’ and ‘areas of strength’. Then after a collaborative brainstorming and input from everyone included, a ‘Future State Map’ is envisioned. The team comes up with ‘Kaizen Ideas’ that address each of these ‘areas for improvement’. Some of these ideas lead to experiments, which are initiated right away to see if they positively impact the metrics or the process. This list of ideas is also captured in a summary ‘Action Plan’ that guides the improvement journey from that point forward. Sometimes an idea is carried out by a series of countermeasures that helps one reach the goal. (‘Lean’ Methodology uses the term ‘countermeasures’ instead of solutions because the word ‘solutions’ suggests a degree of finality. What may work today, as a ‘solution’ may not be fully adequate tomorrow when some of the variables change. The term ‘countermeasure’ is the next best step that one could take towards solving the problem) A person who is the ‘Single Point of Accountability’ is assigned the task of monitoring and follows up on the idea that they are responsible for monitoring.

After the event, data is regularly collected and analyzed. The team meets for regular ‘report out’ meetings with participation by the top management. Here in these meetings, we discuss our progress, successes and barriers as well as discuss new issues as and when they come up.

**SOLUTION:**

Our goal was to conduct pilot projects, which would help assess the applicability of this methodology in our setting. Based on our early results, we believe this methodology does lend itself to the behavioral health care setting and is quite effective in improving quality of care and patient safety. It has proven to be easily learnt by the direct care staff, energizes all the
participants, which fosters ownership of the PI initiative, and leads to a commitment to sustaining the improvement. Since data collection and interpretation is a key component of this methodology, there is a greater focus on obtaining and using data to assess our current processes and monitor and sustain improvement. The process has also made us more aware of the role that
‘waste’ plays in healthcare settings. What we are learning from our ‘lean’ journey is that underneath all waste, there are hidden potential quality and safety problems. This methodology classifies waste into 8 different categories, and teaches the team involved to think of redefining work related activities to be more ‘value-added’ from the point of view of the patient and the family. We are also thinking of the impact of the ‘Electronic Health Record’, how it affects our processes and how it might need to be modified to support our performance improvement efforts. The members that are part of these cross-functional Kaizen teams, are using and assessing the countermeasures developed as a result of these efforts and will also help us in disseminating the successful countermeasures throughout system. As demonstrated in the figures below, our performance is improving, as evident by just a couple of outcome metrics that pertain to information relayed to the patient and next treatment provider, which definitely improves the safety of patients during this crucial transitional period of patients discharging from an inpatient unit.

We also found that some of the recommendations of the Discharge Planning Kaizen could be implemented in a short span of time, for example, obtaining a cell phone for the discharge coordinator, reorganization of the physical work environment to enhance efficiency and organization, creation of checklists to eliminate errors and redesigning some documentation templates to improve the process. Other recommendations are still in the process of being implemented, such as revising the patient’s treatment journal to increase the patient’s participation in his/her treatment and discharge planning, developing a “status–at-a-glance worksheet” in the electronic medical record to facilitate timely and accurate handoff communication among staff that jointly take care of the patient, creation of a shared database that would allow information pertaining to discharge planning (such as resources and providers in the community) to be easily shared by everyone in the Health System, and increased compliance with promptly sending clinical information to the next provider of care. We are also making efforts to ensure that discharge planning consistently starts early on, during the course of the patient’s inpatient stay. Data is being regularly collected and analyzed to assess the sustainability of the improvement and to achieve 100% compliance in the targeted performance areas.
RE-ENGINEERING DISCHARGE PLANNING

48% Improvement

D/C info. sheet and Med. Rec. sheet to the Next Provider

Pre-Kaizen 2 Months Post-Kaizen

52% 70%

91% Improvement

D/C info. sheet and Med. Rec. sheet to the Patient

Pre-Kaizen 2 Months Post-Kaizen

44% 85%

MPSC 2010 Annual Conference Solution Submission
Some ‘lean’ tools used in our setting at Sheppard Pratt Health System