

Using FOCUS-PDSA Quality Improvement Methodology Model in Healthcare: Process and Outcomes

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Learning Objectives

1. Understand the concept of FOCUS-PDSA
2. Know how FOCUS-PDSA is used for quality improvement and enhancement processes
3. Learn the difference between FOCUS-PDSA and other frameworks or tools

FOCUS-PDSA PRINCIPLE AND CONCEPT

Quality is a prominent subject in healthcare, with the ultimate objective of maintaining a high level of patient satisfaction while increasing financial elements and patient safety.^[1] The goals are always changing and may be influenced by a variety of external variables. When a healthcare institution encounters a barrier in meeting these objectives, it is critical to understand the root reasons and take the appropriate actions as soon as possible to accomplish the patient safety and cost-effectiveness objectives.^[1,2] One quality improvement concept in healthcare is to do it right the first time, thus it is crucial to respond fast by focusing on the most critical elements that contributed to the problem at hand.^[3] Instituting changes in healthcare organizations is difficult owing to the range of labor and duties. The organizations have been classified as a complex adaptive system, which is one of the most difficult systems to understand and manage because a single problem might be connected to several contributing parts at the same time.^[4] As the need for high-quality patient care grows, many healthcare settings have started to monitor their performance to ensure that they are delivering treatment that is safe, effective, timely, patient centered, equitable, and efficient.^[5]

FOCUS (F = Find a problem, O = Organize a team, C = Clarify the problem, U = Understand a problem, S = Select an intervention) and PDSA (P = Plan, D = Do, S = Study, A = Act) (FOCUS-PDSA) is a popular strategy that was established in the healthcare field to improve processes and quality.^[6] It is a systematic process improvement strategy developed by the Hospital Corporation of America.^[7] The methodology is simple to understand and apply to the management of any process (Fig. 1).

FOCUS and PDSA methodologies can be used to change how a service is delivered based on data collected in each stage or cycle.^[8,9] This approach may also be used to assess the effectiveness of a change.^[9] FOCUS is the sequence for identifying areas for improvement, whereas PDSA consists of cycles of improvement processes.^[10] Each PDSA cycle tests a change through planning, implementation, studying outcomes, and acting on what is discovered. The FOCUS-PDSA model requires the formation of an interdisciplinary team and simple data collection and reporting tools.^[11]

HOW IS FOCUS-PDSA USED FOR QUALITY IMPROVEMENT?

The first step in the FOCUS-PDSA methodology is to identify and characterize a specific process that needs to be improved or problem that needs to be solved. This process entails systematic, iterative testing of individual changes. FOCUS-PDSA is used for establishing high-quality standards and pursuing continual improvement and quality assurance.^[12] This model for process improvement is essential for continuous improvement and typically gives strategies for quality

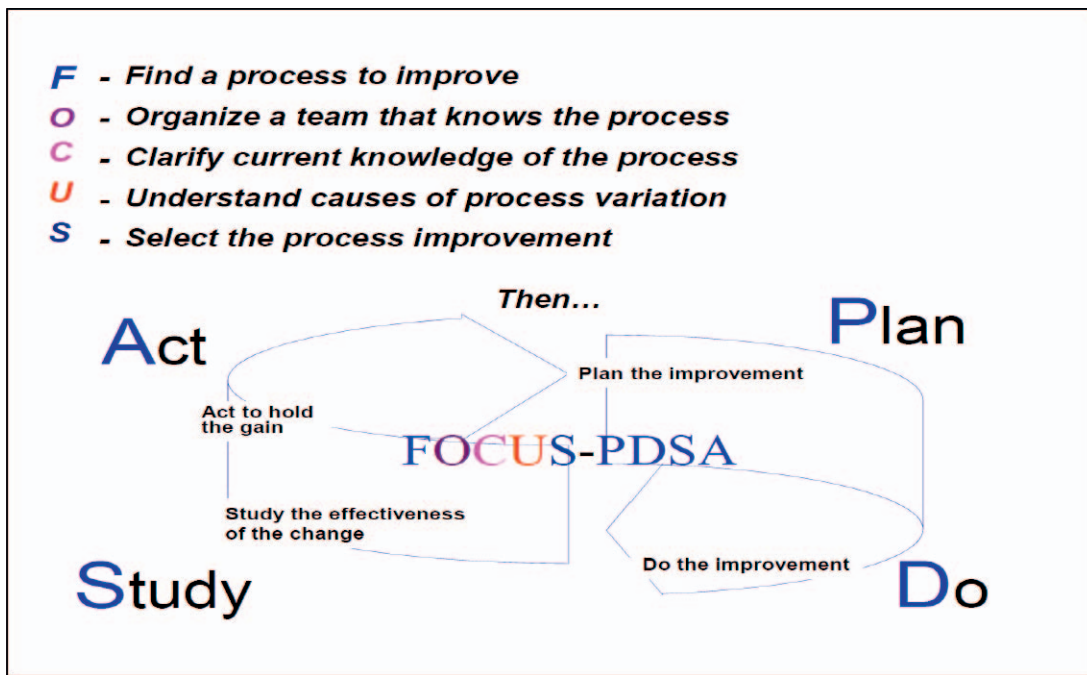


Figure 1. FOCUS-PDSA processes.

improvement in healthcare. FOCUS-PDSA, also known as the trial-and-error cycle, encourages tiny modifications as well as quick adaptations and improvements.^[13]

Another approach is the Kaizen method for continuous improvement, but this method is limited to specific quality measures over a short period of up to 6 months,^[14] whereas FOCUS-PDSA is not limited to a specific period and is simple to implement.^[15] FOCUS-PDSA makes changes step by step, little by little, thus facilitating continuous improvement of targeted activities or processes.

A PRACTICAL GUIDE TO PROBLEM SOLVING AND DATA ANALYSIS

The FOCUS-PDSA cycle provides a framework for discovering and objectively evaluating improvement possibilities by organizing processes and analyzing them based on each condition (Fig. 2). The FOCUS-PDSA model is used for various projects including the development of guidelines and protocols.^[16] The following are two examples of articles in the literature that used FOCUS-PDSA or PDSA as quality improvement methodology.

The first example used FOCUS-PDSA to reduce the average length of stay (LOS) in an inpatient setting. The aim was to identify and manage reasons for delays in discharging patients from a medical specialties department at a tertiary care center in Saudi Arabia. There were specific measurable targets per year. As a result, despite gradual increases in admissions from 2016 to 2018, the mean LOS decreased significantly between 2016 and

2018, from 9.16 to 7.47 days. Readmission and mortality rates decreased after the intervention was implemented in 2017, suggesting an improvement in the process of admission and discharge.^[17]

The second example used PDSA cycles to enhance palliative care occupancy and efficiency in a setting that uses a healthcare pathway for service integration and policy development. This article described the experience in implementing a quality improvement project to overcome the problem of bed overcapacity at a comprehensive cancer center in a tertiary care center. The aim was to reduce the average LOS of palliative care patients as well as to increase cost-effectiveness. The PDSA cycle engaged all stakeholders from all service tiers, tested interventions in simplified pilots, and developed a detailed plan and business case for further implementation and rollout, which was then used to refine a process for implementing changes. As a result, a significant reduction in bed capacity was observed: from 35% in 2017 to 13.8% in 2018. The original LOS was 28 days, whereas the average LOS was 19 days in 2017 (including the time before and after the intervention), 10.8 days in 2018 (after the intervention was implemented), 10.1 days in 2019, and 16 days in 2020.^[18]

SUMMARY

FOCUS-PDSA methodology is a helpful tool that can be used in various stages of quality improvement initiatives and serves several roles. Applying FOCUS-PDSA to projects in healthcare will save time, money, and effort. The availability of a wide range of quality

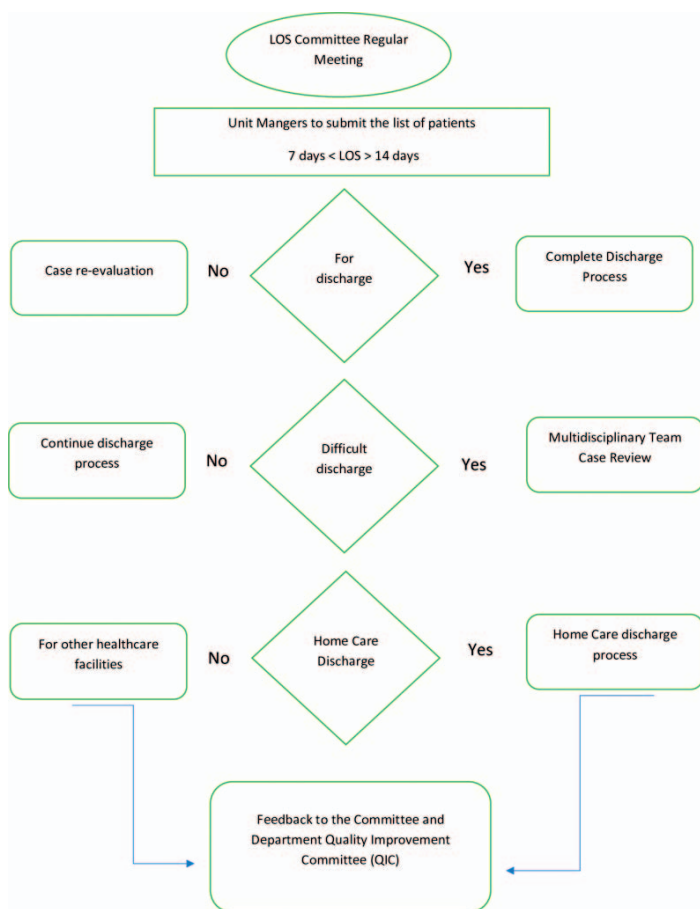


Figure 2. Example of how to clarify the process. Reprinted from [17] with permission from Innovations Journals. LOS: length of stay.

tools, as well as improved participation of healthcare professionals and staff, will help to improve patient safety, cost-effectiveness, and develop a setting rich in quality elements and methodologies.

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