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Applying the Plan-Do-Study-Act Cycle to Improve Effectiveness, Feasibility, and Acceptability of an Innovative Anatomy Curriculum

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Abstract

Numerous Undergraduate Medical Education (UME) programs have undergone a curriculum transformation in recent years with the goal of more effectively integrating clinical, systems, and basic sciences throughout the curriculum. In short, these systems-based curricula aim to present “normal” function in direct contrast with “abnormal” to provide an immediate clinical context. However, even in these integrated curricula, gross anatomy is typically taught as an independent course at the beginning of the program, sometimes with reinforcement later in the context of each organ system. By contrast, in designing the YourMD curriculum for the OHSU UME program, we elected to integrate the majority of the anatomical sciences content into each systems-based block to emphasize its functional and clinical application. As an innovative approach to anatomy education, it was especially important to implement a process for data-informed continuous quality improvement of the educational experience and learning outcomes. This presentation demonstrates application of the Plan-Do-Study-Act (PDSA) cycle as a framework, targeting three aspects of the learning experience – sequencing of content, spacing of sessions, and assessments – for the Skin, Bone, and Muscle Block of the YourMD curriculum. The PDSA cycle was applied with each iteration of the course, since its launch in 2014, to identify targets for incremental change. Each study phase of the cycle utilized quantitative data from student performance on assessments and qualitative data from course evaluations and Town Hall meetings. The results of data analysis were then used to inform each subsequent action phase, maintaining positive modifications and planning new adjustments to the anatomy curriculum, with the ultimate goal of improving the effectiveness, feasibility, and acceptability of this innovative learning experience. This work demonstrates how to apply a data-informed process within the PDSA framework for continuous quality improvement, a process that can be applied to any setting.