



Scan Me! Improving the Third Year Medical Student Obstetrics and Gynecology Ultrasound Curriculum

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BACKGROUND

The ultrasound is referred to as the imaging modality of choice for identifying pelvic anatomy and various pathologies. As a medical student rotating under the OB-GYN services, a valuable skill to gain would be understanding the basic mechanisms of ultrasonography, and beginning to gain the basic skills necessary to work the ultrasound. There is currently a well-documented need for the improvement of ultrasound education among OB/GYN residents throughout current literature. In understanding that both obtaining and interpreting a quality image during an ultrasound depends on the level of skill of the operator, we are able to more readily see the reasons for the need to focus on the education and training of the individual. This mini ultrasound curriculum will be designed to provide early exposure and cater to the foundational needs of third year medical students.

PROJECT AIM

Global Aim: To improve the overall quality of the M3 ultrasound curriculum and ultimately the quality of care that is provided to patients due to better physician sonography skills.

Specific Aim: By the 2019-20 academic year, 100% of the OB/GYN clerkship students will participate in both the designed Ultrasound Curriculum and complete the assessment during their clerkship.

PROJECT DESIGN/STRATEGY

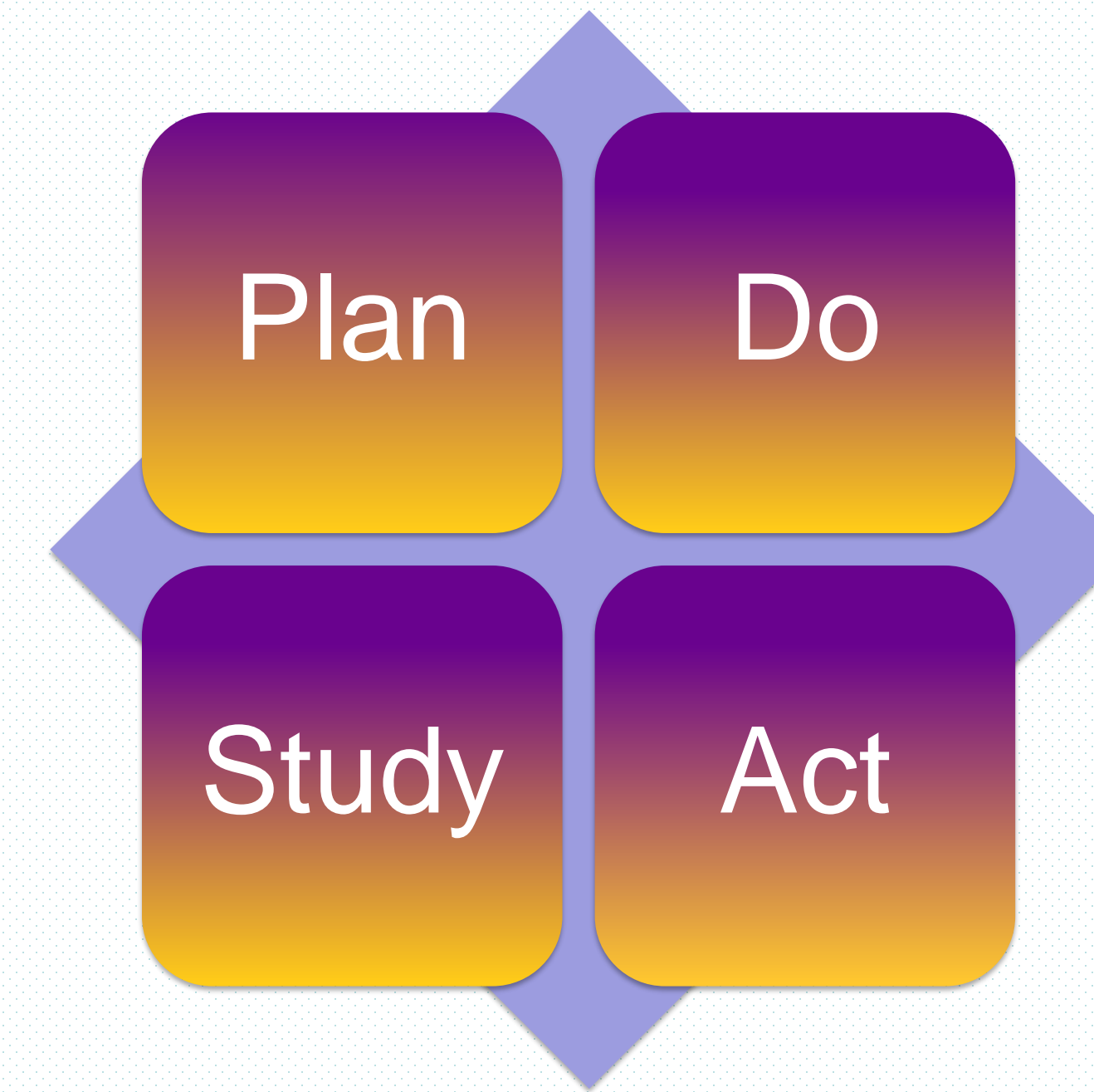
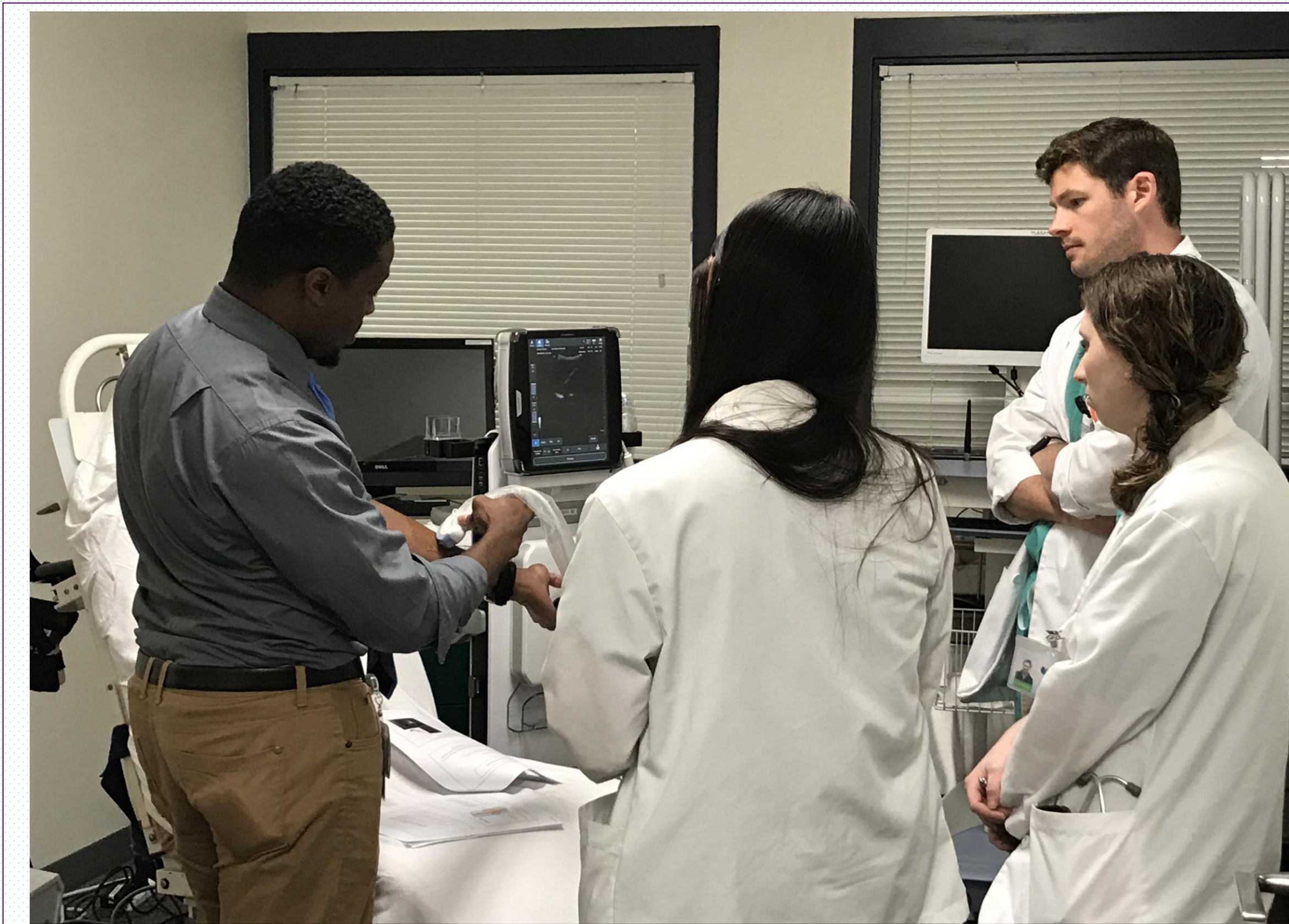
In order to fully understand the effect of our planned interventions for this project, it must first be noted the exact nature of the current curriculum for 3rd year medical students on their OB/GYN clerkship. The primary method of designed ultrasound education that the students receive is through 2 different venues: 1) general exposure to sonography of the obstetric patient during inpatient and outpatient shifts with faculty and staff; and 2) a more formal set of designated ultrasound education days in which the student spends the session working with various sonographers and Maternal Fetal Medicine faculty. Due to inconsistencies in each student's exposure there were still numerous components of sonography that they did not understand.

The American Journal of Obstetrics & Gynecology outlines 3 ways to improve the quality of an ultrasound:

1. Standardizing the ultrasound exam
2. Complying with guidelines already in place
3. More frequent observation & quality review of both performing/interpreting the ultrasound

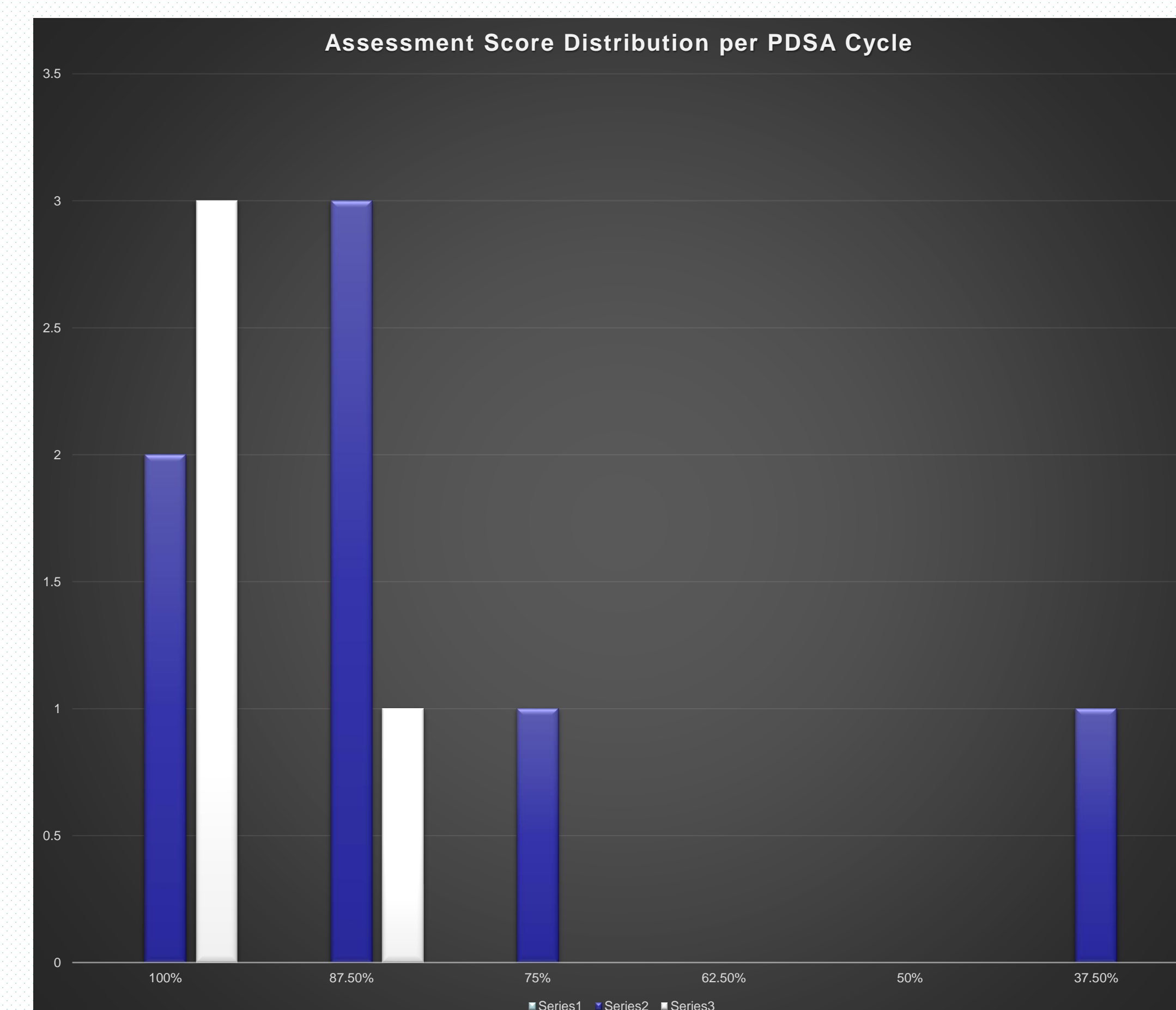
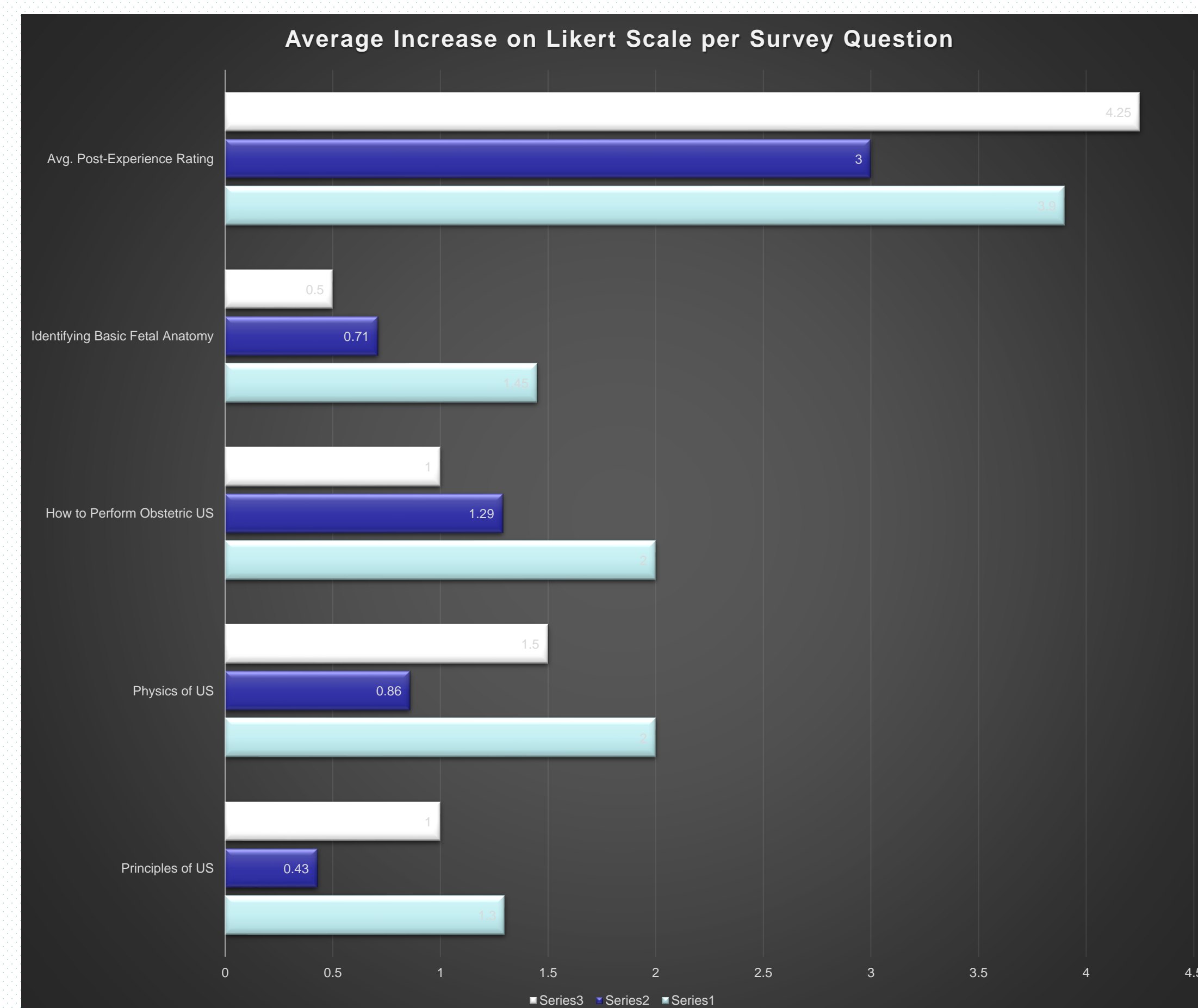
These suggestions then guided the direction of this project, as students will complete the planned interventions, then complete a Pre/Post survey & assessment to determine effectiveness of the newly designed curriculum.

CHANGES MADE (PDSA CYCLES)



- **PDSA 1:** Developing and adding a formal ultrasound educational PowerPoint into the current curriculum along with a designed simulation session
- **PDSA 2:** Creating and adding an 8-question assessment to be completed after the simulation experience.
- **PDSA 3:** Students practice scanning technique and obtain feedback

RESULTS/OUTCOMES



LESSONS LEARNED

-There were 24 total student participants, 20 of which were 3rd year medical students. For each question on the survey, there was a net positive increase between each pre and post survey question.

-On a scale of 1-5, the average rating for how helpful was the ultrasound curriculum was 3.7. (Averaged over 3 PDSA cycles)

-Out of 11 completed assessments, only 1 failing score; with 90% of students scoring 75% or above

Based on the survey results and the students' ability to complete the assessment successfully, the designed ultrasound education curriculum was successful at increasing both exposure and baseline understanding of the obstetric ultrasound. The continued goal would be that with evidence supporting the educational need and benefit for enhanced ultrasound education, that permanent changes can be made to the curriculum to incorporate this ultrasound educational module in the near future.

NEXT STEPS

- 1) Continue to evolve this ultrasound curriculum into a more self-sustaining module
- 2) Incorporating assessment with feedback into curriculum
- 3) Increase number of 3rd year students completing the curriculum during the 2019-20 school year

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