Describing Self-Confidence in Ultrasound Performance with Increased Exposure

Anthony Shanke, MD, Katherine Schultz MS, Surya Bhamidipalli, MPH, Caroline Rouse, MD and Nicole Scott, MD

Introduction

- In 2018, Abuhamad et al developed the Residency Training Program Consensus Report.
- The report describes an ultrasound curriculum with post-graduate (PGY) specific goals.
- Our objective was to describe residents' confidence in obtaining these images and correlating this to clinical experience.

Methods

- Cross-sectional survey of PGY1-4 OB/GYN residents at Indiana University.
- Residents completed an anonymous survey on their ability to obtain images per the 2018 Consensus Report.
- Residents self-reported confidence on a Likert scale 1-10: 1-3 if unable to obtain the images, 4-6 acquisition with assistance and 7-10 able to obtain and interpret independently.
- Mean scores calculated for each PGY class. Additionally, self-reported scores were then compared with median PGY ACGME case logs for ultrasound.
- Descriptive analysis and Spearman correlation was performed with SAS 9.4.

Results

- 30 residents completed the survey.
- Confidence in independently obtaining fetal presentation (8.5) and amniotic fluid was achieved in PGY1 and maintained through training.
- Confidence in obtaining fetal biometry and gynecologic pathology increased with increased exposure.
- Residents felt unable to obtain cardiac views in PGY1 (LVOT 0.5, RVOT 0.5) and this persisted into PGY 4 (LVOT 3.0, RVOT 3.0).
- There was a negative correlation between case logs and cardiac views (Spearman -0.878) for PGY3.

Discussion

- Fetal cardiac views are a recommended Level 3 (Year 3) competency however respondents had low confidence in obtaining these views despite advanced training and increased ultrasound case logs.
- The consensus report provides a framework for education and efforts to improve teaching of cardiac views is imperative.
- Current ACGME minimums for OB may be inadequate to provide appropriate skills to achieve recommended milestones.

Residents felt uncomfortable obtaining fetal cardiac views despite increased clinical exposure