Expansion and Evaluation of the CU Obstetrics and Gynecology Resident Research Program

Purpose: The ACGME requires that all Obstetrics and Gynecology residents complete scholarly activity. In 2013, the University of Colorado Obstetrics and Gynecology residency created a research program to address a need for structure and mentorship for completion of a research project during residency. This included appointment of Assistant Program Directors, an internal funding mechanism, and summer didactic education. Since that time, the program has continued unchanged. However, expectations and experiences of residents and faculty surrounding resident scholarly activity continue to evolve. The purpose of this project is to evaluate the program's current performance and expand the curriculum, then conduct a needs assessment to determine further areas for improvement.

Objectives: The objectives of this project were to evaluate resident research output during the past four years, immediately expand the existing educational curriculum with incorporation of digital learning modalities and adult learning tools, and then conduct a needs assessment via survey to assist in identifying future areas for programmatic change.

Methods: We identified all peer-reviewed published research carried out during residency via PubMed and Google Scholar for each graduating resident between 2019 and 2022. We identified poster and oral presentations at regional/national conferences for each resident via communication with the resident or mentor, or via mention in a publication. We calculated publication and presentation rates. Program goals and objectives were revised by assistant program directors of research, incorporating feedback from stakeholders including research mentors and faculty. We expanded didactic education and revised it to help meet these objectives, with a longitudinal curriculum incorporating existing research methodology education with resident Works in Progress sessions and rotating lectures. We employed adult learning concepts of priming and interleaved learning to strengthen knowledge retention. We created a framework for pre/post quizzes and evaluation of didactic material. We plan to distribute a needs assessment survey at the completion of the 2022-2023 academic year via Qualtrics to current and former residents and current faculty, to identify strengths, weaknesses, and areas of program improvement, using both multiple choice and free-text answer format.

Results: From 2019 to 2022, the percentage of graduating residents with any peer-reviewed publication for research completed in residency was 77.8%. The percentage of resident research projects that were presented as poster or oral presentations was 66.7%, and the percentage that were published was 55.6%. In 2022-2023 we expanded didactic education from two to nine sessions, adapting to a hybrid online/in person model, and incorporating digital learning approaches and adult learning theory. We outlined a short curriculum module for independent learning during the 2nd year resident research elective which will be incorporated into the next academic year, and plan to administer the needs assessment at this year's end.

Conclusion: When compared to years 2016-2019, the publication rate has remained stable (77.8%). However, only slightly over half of residents publish their resident research projects, highlighting the importance of the upcoming needs assessment to determine how to further support resident scholarly activity.