

Teaching Ambulatory Obstetrics and Gynecology With a Novel Case-Based Podcast Curriculum

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ABSTRACT

Background: Robust ambulatory clinic teaching can better prepare residents for ambulatory practice. The objective of this study was to implement a standardized ambulatory clinic curriculum in obstetrics and gynecology (OB-GYN) residency training and evaluate its feasibility and acceptability.

Methods: A curriculum consisting of weekly OB-GYN-focused podcasts on ambulatory topics, paired with 15-minute case-based discussions conducted before clinic, was implemented for 28 OB-GYN residents at a single institution.

Results: After curriculum implementation, residents reported increased frequency of structured ambulatory teaching and greater satisfaction with teaching, while faculty reported improved resident knowledge. Both residents and faculty spent less than 30 minutes per week preparing for didactic sessions.

Conclusions: A podcast-based, case-discussion ambulatory curriculum is a feasible and well-accepted approach to enhancing resident education in the ambulatory setting. This adaptable model may be applicable to other residency programs and specialties seeking to strengthen ambulatory training.

Discussion: This innovative curriculum is a feasible, satisfactory method to enhance education in the ambulatory setting and can be easily adapted to other specialties.

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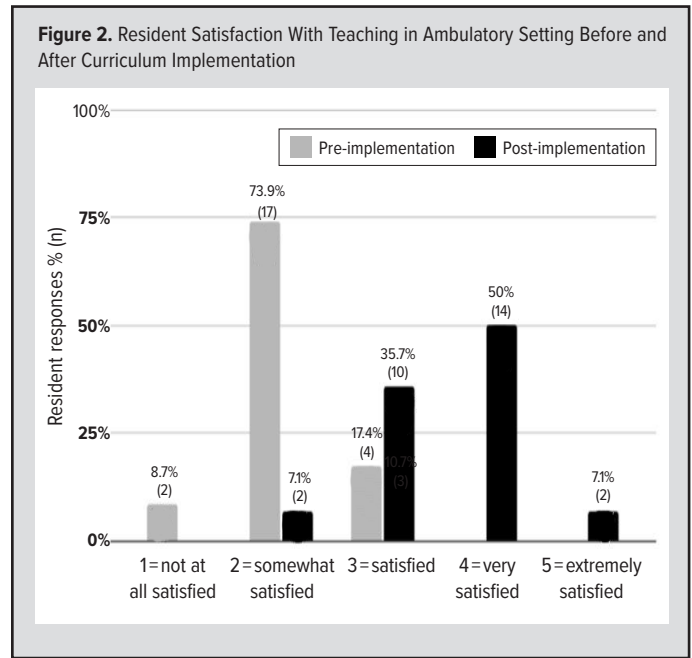
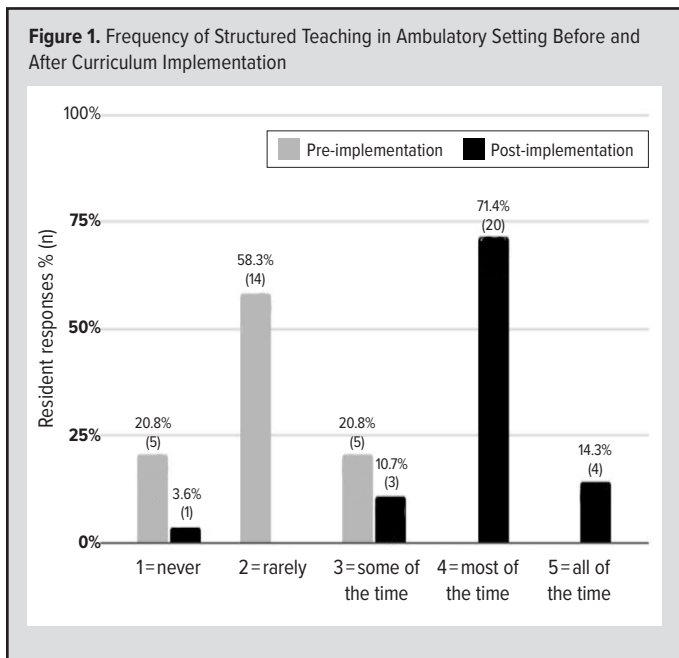
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BACKGROUND

The vast majority of residency training occurs in the inpatient setting, especially in surgical subspecialties such as obstetrics and gynecology. This contrasts with post-training practice, during which more time is typically spent in the ambulatory setting. To address this deficit, ambulatory teaching should be expanded and strengthened to better prepare trainees for practice after residency.

Curricula have been created to meet this need in nonsurgical specialties that face similar inpatient-outpatient training imbalances.^{1,2} Because development of an ambulatory curriculum is labor- and time-intensive, sharing curricula among medical educators across institutions—referred to as extramural curricula—is efficient and beneficial. Indeed, by 2012, almost half of all pediatric residency programs and three-

quarters of internal medicine programs used extramural curricula to improve ambulatory care education.¹ A commonly used, standardized ambulatory curriculum in pediatrics addresses a weekly ambulatory care topic with an assigned reference article, case vignettes, and discussion questions completed before clinic. The curriculum was well-received by interns and faculty preceptors² and subsequently adapted in internal medicine.³ Currently, more than 350 medical training programs subscribe to the Yale Office-Based Medicine Curriculum,³ and more than 200 training programs subscribe to the Yale Primary Care Pediatrics Curriculum.⁴ Case-based learning is an effective and well-accepted approach for small-group medical education.⁵ By contrast, similar longitudinal ambulatory education initiatives in surgical specialties are lacking.



Medical education podcasts have become an increasingly popular learning modality^{6,7} and represent a potential platform to address this educational gap. A randomized controlled trial demonstrated that medical learners gained more knowledge and reported greater satisfaction when learning from podcasts compared with textbooks.⁸ Furthermore, podcasts are popular across specialties; a recent review of 19 specialties found neurosurgery to be the only specialty without an identifiable podcast.⁶

The aim of this study was to evaluate an innovative, standardized ambulatory curriculum using podcasts and case-based discussion in an obstetrics and gynecology (OB-GYN) residency program. We hypothesized that implementation of this curriculum would increase structured ambulatory teaching and trainee satisfaction without adding significant preparation time or burden for residents or faculty.

METHODS

Setting

Study participants included 28 OB-GYN residents and 3 core faculty preceptors at the University of Wisconsin School of Medicine and Public Health. This 4-year residency program, located in Madison, Wisconsin, has 7 residents per postgraduate year, with ambulatory clinic occurring throughout training. Three core faculty precept these clinics. Prior to this implementation of the new curriculum, ambulatory teaching was ad hoc and varied by preceptor discretion, with no dedicated clinic time for teaching.

Curriculum Design and Implementation

A standardized OB-GYN residency ambulatory curriculum modeled after the Yale internal medicine curriculum was developed. Case-based learning, with a faculty member facilitating discussion of a weekly topic, occurred 15 minutes before clinic start time. The

weekly reference article was replaced with an OB-GYN podcast episode from the “CREOGs Over Coffee” series, a popular medical education podcast. Each episode is approximately 20 minutes and covers topics based on the Council on Resident Education in Obstetrics and Gynecology (CREOG) educational guidelines, which are the primary framework for OB-GYN resident curricula.⁹ As of March 2025, the podcast had over 300 episodes, 5 million downloads, and a 4.9-star rating based on 535 reviews on Apple Podcasts.^{10,11}

The repository of CREOGs over Coffee podcasts was reviewed, and ambulatory care topics were identified. From there, the 42 high-yield ambulatory care topics were selected, and a presentation with learning objectives case-based discussion prompts was created for each weekly topic. Residents and faculty developed the presentations; each required less than 1 hour to create and review.

Surveys

Surveys were used to assess resident and faculty acceptance of the curriculum. Residents were surveyed before implementation and 10 months after implementation. The pre-implementation anonymous survey consisted of 9 items, including multiple-choice, free-response and Likert-scale questions. Respondents were asked to indicate postgraduate year, but no additional demographic information was collected. The post-implementation survey was identical to the pre-implementation survey, with the addition of 2 curriculum-specific questions. The pre- and post-implementation surveys were not linked.

The 3 core faculty members were surveyed 3 times during the 10-month implementation period. The anonymous survey consisted of 6 items, including multiple-choice, free-response, and Likert-scale questions. No demographic information was collected.

Surveys are provided in Supplemental Content B-D (see Appendix). The surveys were developed for this study, and no validity evidence was collected.

We used Qualtrics, a cloud-based software, through the University of Wisconsin subscription for survey design and distribution, data collection, and storage (Qualtrics, LLC).

Analysis

Data were exported from Qualtrics and analyzed using Stata version 16 (StataCorp). Responses to resident and faculty pre- and post-implementation surveys were analyzed separately. Given the small sample sizes, continuous items were analyzed using the Wilcoxon rank-sum test, and categorical variables were compared using the Fisher exact test. A *P* value of <0.05 was considered statistically significant. Responses to free-text items were reviewed and grouped thematically for descriptive analysis. Some items had missing data due to skipped questions; results are reported for nonmissing responses.

Institutional Review Board exemption was obtained from the University of Wisconsin for research in education settings. Completion of the survey by residents and faculty implied consent to participate, as stated in the survey.

RESULTS

Twenty-five of 28 residents (89%) completed the pre-implementation survey, and 28 of 28 (100%) completed the post-implementation. After curriculum implementation, residents reported an increase in the frequency of structured ambulatory teaching ($P < .001$, Figure 1) and greater satisfaction with ambulatory teaching ($P < .001$, Figure 2). All residents spent less than 30 minutes preparing, including time spent listening to the podcast; 68% reported spending less than 20 minutes. Most residents (26 of 28 [93%]) agreed that podcasts were easy to listen to.

The faculty survey response rate was 78%. Specifically, the 3 faculty were surveyed on 3 occasions, yielding 7 of 9 possible responses. Respondents found the format feasible and effective, with all reporting less than 30 minutes of weekly preparation time and 57% (4 of 7 responses) spending less than 20 minutes. Faculty agreed that the allotted teaching time was sufficient (5 of 7 responses, 71%). Additionally, all faculty respondents reported that leading case-based discussion was easy and improved resident knowledge.

In resident free-text responses, time constraints were the most frequently cited barrier to ambulatory teaching. A small number of residents identified clinic volume as an additional barrier. Faculty similarly reported time as the primary barrier, specifically noting residents arriving late to clinic. This was reported to occur more commonly during afternoon clinic sessions.

DISCUSSION

Our curriculum provides a standardized ambulatory clinic curriculum for OB-GYN residency training that requires less than 30

minutes of weekly preparation and results in significantly increased satisfaction among both residents and faculty. These findings are consistent with evaluations of the Yale Primary Care Pediatrics Curriculum, in which pediatric interns reported improved satisfaction, participation in learning, and confidence in clinical skills following implementation of a structured, case-based ambulatory curriculum.²

There is a growing national consensus among educational leaders in OB-GYN residency training regarding the need for a standardized ambulatory curriculum. This podcast- and case-based approach offers a practical step toward addressing this need in the ambulatory setting. By leveraging established podcast resources, we developed a low-burden, high-impact educational intervention that aligns with increasing demands on resident and faculty time. The consistently positive feedback from both residents and faculty underscores the value of flexible, asynchronous learning modalities in clinical education.

In the current landscape of graduate medical education, time constraints and competing clinical responsibilities frequently limit opportunities for structured ambulatory teaching. Our curriculum addresses this challenge by offering a scalable, time-efficient solution that does not compromise educational quality. Podcasts, in particular, offer a distinct advantage by delivering consistent, evidence-based content that can be accessed on demand, allowing learners to engage with material at their own pace and in a variety of settings.

Importantly, the adaptability of this curriculum supports broader implementation. Other OB-GYN residency programs may tailor curriculum to fit their specific institutional needs and structure. Additionally, this framework may be applicable to other specialties in which ambulatory education is similarly challenged by time constraints.

Limitations

This study has several limitations. First, it was conducted at a single institution, which may limit generalizability. The sample size was small and constrained by the number of residents and core faculty in the program. Second, outcomes were assessed using surveys that were developed for this study and lacked validity evidence. Finally, the use of pre- and post-implementation self-reported surveys introduces the potential for response-shift bias, which may have contributed to inflated estimates of satisfaction or perceived benefit.

CONCLUSIONS

This study demonstrates that implementation of a standardized, podcast-based ambulatory curriculum was feasible, required minimal preparation time, and was associated with improved resident and faculty satisfaction with ambulatory teaching. As medical education continues to evolve amid increasing clinical demands, innovative approaches such as this curriculum may play an important role in maintaining high standards of residency training.

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Appendix: Available at www.wmjonline.org

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