

# More than just minimum numbers: what is the future of surgical training in OBGYN residency?

## Abstract

Surgical training in OBGYN residency faces challenges as the required case minimums are being inconsistently met. Surgical volumes remain variable between programs, partially influenced by the expanding use of minimally invasive surgical approaches and other conservative therapies, leaving residents without adequate or consistent exposure to core procedures. While simulation-based training such as Fundamentals of Laparoscopic Surgery and Essentials in Minimally Invasive Gynecologic Surgery represent important adjuncts to the existing curricula, their applicability to more advanced surgical contexts remains limited. In order to ensure strong surgical training, we propose a multifaceted approach: expansion of high-fidelity simulation, inter-institutional collaboration, and community practice integration. Residency programs may also consider individualization of curricula with career goal-based tracking. We call upon the OBGYN community to innovate surgical education through collaboration and allow our field to maintain competitive surgical training.

**Keywords:** surgical training, OBGYN residency, higher-fidelity simulation, surgical education

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## Introduction

For over a decade, graduate medical education has relied on specialty specific required case minimums to demonstrate adequate clinical exposure. Although not intended to define competency, these minimums are often used as a surrogate for attaining basic competency upon training completion. If we are routinely evaluating trainees on volume alone, are we truly providing them with sufficient experience to be independent OBGYN practitioners? Gynecologic surgical training is further complicated by a growing trend towards conservative (or non-surgical) therapies and minimally invasive surgery which significantly impacts the total case volume for OBGYN trainees and dilutes the exposure to less common surgical approaches. It has been estimated that about half of graduating U.S. OBGYN residents may not meet all the currently proposed Accreditation Counsel for Graduate Medical Education (ACGME) minimum numbers.<sup>1,2</sup> For example, across the U.S., abdominal hysterectomy procedures are declining, resulting in considerable variation in surgical volume between trainees and programs.<sup>1</sup> A similar change in the surgical landscape has been described by U.K. OBGYN trainees with a decline in open and vaginal surgeries, underscoring a more universal concern within our specialty.<sup>3</sup> Given the inevitable changes to the clinical demands and surgical exposure in OBGYN training programs, how can we as educators best augment the OBGYN trainees' surgical experience to ensure competency?

One approach has been simulation-based training which can play a transformative role in surgical education and may help mitigate the decline in surgical volumes. Well established evidence shows improved surgical skills, reduced errors, and enhanced overall performance of trainees when surgical simulation is incorporated into training programs.<sup>4-6</sup> Furthermore, data suggests that simulation is also associated with improved patient outcomes.<sup>7</sup> In an attempt to standardize the simulation experience in the U.S., the validated Fundamentals of Laparoscopic Surgery (FLS) program became a graduation requirement for OBGYN trainees seeking board certification in 2020. While this utilizes objective scoring measures to document basic laparoscopic skills, its ability to translate clinically

to more complex minimally invasive surgeries remains limited. Additionally, FLS was initially developed for general surgery programs and later applied to gynecologic surgery. This presents obvious knowledge gaps and questions of applicability to OBGYN trainees. A newer program, Essentials in Minimally Invasive Gynecologic Surgery (EMIGS), specific to gynecology, was introduced in 2023. EMIGS includes didactic content with a corresponding written test and a validated simulation assessment of laparoscopic skills.<sup>8</sup> This has been proposed as an alternative to FLS for U.K. OBGYN programs. Another universally available resource developed by the Council on Resident Education in Obstetrics and Gynecology (CREOG) Surgical Skills Task Force, is the "Surgical Curriculum in OBGYN", available online to any American College of Obstetricians and Gynecologists (ACOG) member. This includes instructions for simulation setup, educational models, and post-simulation quizzes. Resource limitations, however, such as funding constraints, faculty and departmental support, validated simulation programs, and consistent institutional access remain critical barriers to universal uptake. While these courses undoubtedly represent important basic skills assessments, consideration of higher-fidelity simulation opportunities and comprehensive simulation-based curricula that better represent realistic surgical environments may ultimately be necessary to prepare surgical trainees for more complex, technically advanced procedures. Additionally, these simulation-based tools offer training on discrete technical skills and allow for demonstration of procedural steps, but cannot replace real-time, surgical acuity or intraoperative troubleshooting. These are skills best gained by true surgical exposure where not only is surgical competency tested, but so is leadership, communication, and professionalism. Understanding these confines of simulation, how else can we enhance surgical education and ensure our trainees are better equipped for independent practice?

To date, there is no known advanced surgical skill curriculum or simulation course available for OBGYN trainees at large. We propose expanding inter-institutional collaborations with support from national, educational organizations to ensure training needs are met across all programs. This could be done in the form of advanced surgical skills workshops or cadaver labs specifically designed for

residents- something that is commonly offered in other OBGYN surgical subspecialties. Expanding the inclusion of locoregional OBGYN community providers could also play a key role in enhancing surgical training through increased surgical volume and exposure to different practice patterns. This community practice integration has been widely successful at our institution and our trainees often seek employment opportunities from these same providers, further reinforcing the shared commitment to strengthening OBGYN surgical training. We acknowledge that this type of collaboration is not always feasible due to the competing productivity expectations of community providers, however, these are important partnerships to pursue to help supplement trainee education. Internal program curriculum modifications could also help address gaps in an individual trainee's skillset. For example, our current curriculum incorporates an "Independent Practice Rotation" in which senior residents work alongside a surgical coach to identify a specific surgical skill to refine over the course of the one-month rotation.

Other professional associations, such as the Royal College of Obstetricians & Gynecologists (RCOG), similarly recognize this critical need to strengthen surgical training for OBGYN trainees. In 2024 RCOG launched a "Surgical Skills Project," a three-year initiative to support curriculum transformation, improve surgical competency, and enhance workforce readiness.<sup>9</sup> This is a multi-part project with Phase 1 establishing current baseline surgical skills and operating practices of OBGYN trainees. The current and ongoing Phase 2 focuses on research and development of solutions to procedural skill gaps, some of which includes the role of simulation-based training and the importance of structured mentorship.

And what about the residents who desire a career focused in gynecologic surgery or wish to pursue fellowship training? Will our current approach to residency education continue to be sufficient in preparing generalist OBGYNs or are greater structural changes warranted? Tracking within OBGYN residency programs is an alternative training model that has been proposed and implemented at the Cleveland Clinic and Swedish Medical Center in the U.S.<sup>10,11</sup> This concept of separating obstetrics and gynecology has been raised worldwide by OBGYN members in Canada, U.K., and Australia primarily out of concern for insufficient surgical exposure and competence.<sup>12</sup> However, significant barriers still exist until this model could be more globally accepted by institutions and support from governing bodies would be critical. While tracking represents an extreme restructuring of OBGYN training, allowing trainees to individualize aspects of their curricula based on career goals may be a more reasonable transition.<sup>13</sup> These concepts have already been successfully executed in other medical and surgical specialties, though importantly the ACGME has not modified case minimum requirements for trainees who select these paths. While there is no single solution that addresses the evolving clinical and educational climate, we encourage providers in varying practice settings and trainees in the field of OBGYN, to continue collaborating and developing innovative strategies that support rigorous surgical training programs and safe clinical practice.

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## Conflicts of interest

The authors declare that there is no conflict of interest.

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