Competence in Basic Surgical Skills Among Medical Graduates Immediately After Graduation: A Self-Assessment Study

R.M.J.B.S. Rathnayake*, S. Narampanawa, V.D.P. Liyanage, M.M.M.A. Mansoor, H. Narampanawa

Department of Surgery, Faculty of Medicine, University of Peradeniya, Peradeniya, 20400, Sri Lanka
**jeewanrath@gmail.com*

The transition to the intern house officer (IHO) role positions newly graduated doctors as the primary contact for emergencies. Therefore, undergraduate medical curricula must instill high competence in basic surgical skills, equipping graduates to handle this demanding role with professional confidence. This study aimed to determine the competence in basic surgical skills among medical graduates immediately after graduation and their confidence in applying these skills as incoming IHOs. A cross-sectional survey was conducted among a sample size of 430 medical graduates who completed the Final MBBS Examination in September 2025 across all twelve medical faculties in Sri Lanka. Data evaluating 21 basic surgical procedures, frequency of performance, and confidence levels were collected using a self-administered Google Form questionnaire. Statistical analysis, including Chi-square tests to determine associations between procedural exposure and confidence, was performed using SPSS software. Graduates demonstrated high performance and independent competence scores for routine ward procedures, including venepuncture (mean score 3.58), intravenous cannulation (3.44), and male catheterization (3.43). Conversely, significant deficiencies and non-performance rates were identified in emergency trauma and specialized care skills, such as splinting (25.8% not performed), Plaster of Paris (POP) application (mean score 1.58), and tracheostomy care (mean score 1.33). A highly statistically significant association was established between hands-on procedural exposure and self-reported independent competence for the majority of the evaluated procedures ($p < 0.001$). While Sri Lankan medical graduates exhibit adequate competence in routine vascular access, they lack vital hands-on experience and confidence in emergency and specialized surgical skills. These findings strongly advocate for curriculum enhancements, specifically enforcing standardized, competency-based assessments and mandatory minimum hands-on exposure criteria before graduation.

Keywords: basic surgical skills, clinical competence, intern house officer, procedural training, confidence