Simulation-based training improves endoscopy execution

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Simulation-based training improves clinicians' performance of gastrointestinal endoscopy in both test settings and clinical practice, according to research published in the October issue of *Clinical Gastroenterology and Hepatology*.

(HealthDay)—Simulation-based training (SBT) improves clinicians' performance of gastrointestinal endoscopy in both test settings and clinical practice, according to research published in the October issue of *Clinical Gastroenterology and Hepatology*.

Siddharth Singh, M.D., from the Mayo Clinic in Rochester, Minn., and colleagues conducted a systematic literature search to identify original studies that evaluated SBT in gastrointestinal endoscopy compared to no intervention or alternative instructional approaches. A random-effects meta-analysis was conducted.

Based on 39 articles (enrolling 1,181 participants), the researchers found

that compared to no intervention (32 studies), SBT significantly improved endoscopic process skills in a test setting (pooled effect size [ES], 0.79; 22 studies), process behaviors in clinical practice (ES, 0.49; eight studies), time to procedure completion in both a test setting (ES, 0.79; 16 studies), and clinical practice (ES, 0.75; five studies), and patient outcomes (procedural completion and risk of major complications; ES, 0.45; 10 studies). The comparative effectiveness of different SBT approaches was evaluated in five studies, which provided inconclusive evidence regarding feedback and simulation modalities.

"Simulation-based education in gastrointestinal endoscopy is associated with improved performance in a test setting and in clinical practice, and improved patient outcomes compared with no intervention," the authors write. "Comparative effectiveness studies of different simulation modalities are limited."

More information: Abstract
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