Face, Content, and Construct Validations of Endoscopic Needle Injection Simulator for Transurethral Bulking Agent in Treatment of Stress Urinary Incontinence

Bilal Farhan, MD; Tandis Soltani, MD; Rebecca Do, BS; Claudia Perez, BS; Hanul Choi, BS; Gamal Ghoniem, MD, FACS.,
Department of Urology, University of California Irvine

Introduction
Validation studies important part of simulator evaluation and considered important step to establish the effectiveness of simulation-based training. The endoscopic needle injection (ENI) simulator has not been formally validated, although it has been used widely at University of California, Irvine. We aimed to assess the face, content and construct validity of the UC, Irvine ENI simulator.

Methods
At UCI, 6 urologists (experts group) and 6 urology trainees (novice group) completed urethral bulking agent (UBA) injections on a total of 12 porcine bladders using ENI simulator. Dissected female porcine bladders were mounted in a modified Hysteroscopy Diagnostic Trainer. Following the simulation, all participants completed structured quantitative questions which assess face, content and construct validities (Tables 1 & 2). These questions were designed to determine the perception of simulator on a 5-point Likert scale (1: poor, 5: excellent).

Results
Our study provides evidence to support the continuing use of the UCI ENI simulator in urology training as it clearly showed face, content and construct validities. Although few aspects of simulator were not very realistic, it was considered a good training model. This study provides as base for the future formal validation for this simulator by expanding the sample size, which could be used to develop performance-based training curriculum.