Innovative Intrauterine Device Training Model as Dynamic New Teaching Tool

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Introduction. Traditional Intrauterine Device (IUD) insertion trainers are made of hard plastic and while useful for initial practice, lack the ability to accurately represent the variations found in uterine anatomy. To address this, we developed and tested an IUD model which would simulate uterus/cervix haptics, could be positioned in anterograde/retrograde flexion, and could simulate uterine perforation.

Methods. 3-D models were created using ballistic gelatin. Models were utilized in resident workshops and compared to device manufacturer supplied trainers. Residents used various IUD types in each task trainer. Ultrasound guided placement was also performed with the gelatin model. Anonymous surveys compared the three models.

Results. Sixteen residents ranked device parameters on a scale of 1 (Low) to 5 (High). The average results of the gelatin model included realistic feel (4.6), adaptability (4.0), ability to grasp the cervix (3.6), realistic teaching tool (4.5), and useful in teaching (4.6). When evaluated for usefulness in level of self-assigned training/skill (Novice, Mid-level and Competent), the gelatin model ranked 88% and above for each category. The manufactured models dropped in usefulness after novice level. The three models were ranked on a scale of 1 (Low) to 3 (High) in personal practice, teaching, and competency. The gelatin model ranked at least one point on average above the other IUD trainers for each parameter.

Conclusions. The ballistic gelatin model provides a new dynamic learning tool for IUD insertion training. Incorporating this model into training can increase the preparedness of providers. Future direction includes strengthening cervix and testing different grasping tools with models.