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Virtual Skills Training Format for Teaching Intrauterine Contraception Insertion During Coronavirus Disease 2019

Kristin Metcalf-Wilson, Alexis Bates, Shelby Webb, Dipti P. Subramaniam, Jacki Witt

Abstract

The National Clinical Training Center for Family Planning (NCTCFP) has been successfully providing intrauterine contraception (IUC) training since 2008. The curriculum transitioned from on-site instruction to a virtual format using online didactic material and livestreamed training and telementoring. Videos demonstrated the placement and removal of intrauterine contraceptives, and all necessary supplies were shipped directly to participants. Attendees reported a high level of skill uptake and impact on their practice. This pilot study suggests that virtual skills training is suitable for providers unable to travel to in-person events.

Keywords:
- continuing medical education
- intrauterine contraception insertion
- medical curriculum
- nursing curriculum
- telementoring
- virtual skills training

The coronavirus disease 2019 pandemic resulted in the curtailment of face-to-face clinical skills training in 2020. To meet Title X workforce needs, the National Clinical Training Center for Family Planning transitioned onsite intrauterine contraception training to a virtual format using online didactic material and livestreamed training and telementoring. Videos demonstrated the placement and removal of intrauterine contraceptives, and all necessary supplies were shipped directly to participants. Attendees reported a high level of skill uptake and impact on their practice. This pilot study suggests that virtual skills training is suitable for providers unable to travel to in-person events.
follow-up surveys assessing satisfaction and practice change were also distributed.

**Results**

A total of 134 participants completed the VIUC training. Seventy-one participants (53.0%) completed the immediate posttraining evaluation and consented to sharing their responses for the purpose of our analysis. For the 8-week postraining surveys, 25 (35.2%) participants responded and consented to sharing their responses. Most participants reported an uptake of new skills and were highly satisfied with the training immediately postevent (Table 1). More importantly, at 8 weeks postraining, 10 participants (40.0%) reported having placed 31 intrauterine contraceptives and removed 30 intrauterine contraceptives between themselves in the past month. Seventeen respondents (68.0%) reported impacts on their practice. The 25 (100%) participants who responded to the follow-up survey indicated continued high satisfaction. Nurse practitioners (72%) performed the majority of IUC removals compared with other health care provider groups, and those working in a community health center/federally qualified health center completed most IUC removals compared with providers who worked in a noncommunity health center/federally qualified center. Further study results can be found in Tables 1, 2, 3, and 4.

**Discussion**

Virtual clinical training has been successfully implemented during the pandemic.

These preliminary findings suggest that holding the training in a virtual setting during the pandemic ensured that clinicians and ultimately their clients continued to have access to long-acting reversible contraception methods. The major clinical implication of this pilot study is that clinical skills training can be successfully achieved through self-paced didactics, livestreamed instructor-led training, and telementoring. This type of innovative training design could serve as a model to create other durable programs adaptable to a variety of situations, ensuring that essential clinical training continues when in-person gathering is not feasible. Looking beyond the pandemic, virtual training can provide clinicians who have less access to onsite training (rural areas, time constraints, inability to travel, etc) the opportunity to learn new skills and enhance practice.

**Table 1**
Immediate Postevent Measures of Satisfaction (N = 71)

| Measure | n (%) |
|---------|-------|
| How would you rate this educational activity overall? | |
| Excellent | 47 (66.2) |
| Good | 19 (26.8) |
| Average | 4 (5.6) |
| Below average | 1 (1.4) |
| Poor | 0 (0) |
| I acquired new skills in the training | |
| Strongly agree | 57 (80.3) |
| Agree | 19 (26.8) |
| Neither agree nor disagree | 1 (1.4) |
| Disagree | 0 (0) |
| Strongly disagree | 1 (1.4) |
| The training delivery method was appropriate | |
| Strongly agree | 50 (70.4) |
| Agree | 14 (19.7) |
| Neither agree nor disagree | 4 (5.6) |
| Disagree | 2 (2.8) |
| Strongly disagree | 1 (1.4) |
| This training will help me perform better in my job | |
| Strongly agree | 53 (74.7) |
| Agree | 16 (22.5) |
| Neither agree nor disagree | 1 (1.4) |
| Disagree | 0 (0) |
| Strongly disagree | 1 (1.4) |

**Participants**

Recruitment for virtual training followed the same format as live training events. Training alerts were sent to our database of approximately 12,000 clinicians, and the events were posted on our website and advertised in our monthly newsletter. Interest was high, with most VIUC events amassing waiting lists. The NCTCFP delivered its first VIUC training in October 2020 to 16 attendees, and from March through July 2021, a pilot study was conducted to assess practice change and learner satisfaction.

**Evaluation**

Immediately after training, evaluation surveys were distributed online to measure impact and learner satisfaction. Eight-week

**Table 2**
Eight-Week Postevent Measures of Satisfaction and Impact (N = 25)

| Measure | n (%) |
|---------|-------|
| Thinking back on the LARC training you received, how would you rate the training overall? | |
| Excellent | 19 (76.0) |
| Good | 5 (20.0) |
| Average | 1 (4.0) |
| Below Average | 0 (0) |
| Poor | 0 (0) |
| Please indicate if any of the following have happened because of your participation in this virtual IUD workshop. | |
| The place I work has started offering IUDs as a new service. | 6 (24.0) |
| The place I work has seen improved patient outcomes related to IUDs. | 5 (20.0) |
| The place I work has improved workflow regarding IUDs. | 5 (20.0) |
| Other impact | 7 (28.0) |
| Total participants who reported an impact as a result of their participation in the virtual IUD workshop. | 17 (68.0) |
| Total IUDs placed in the past month (reported by 9 participants) | 31 |
| Total IUDs removed in the past month (reported by 10 participants) | 30 |
Although these pilot data are limited and not specific to the type of clinical facility, this study demonstrates the need for ongoing data collection to show long-term satisfaction and the impact of the training on the participants’ practice. Although a limitation of the pilot was the small sample size, the responses still demonstrate high respondent satisfaction and practice change after the training. More importantly, this pilot study shows that the format of the training was well received and that the content needed to adopt a new skill was successful. Self-paced online didactic material, virtual didactic review, clarification with an expert, and virtual “real-time” skills training with practice models and instruments offer the operationalization of the experiential learning method in a unique format, facilitating the adult learner’s success.

Despite reporting high satisfaction with the virtual training, some participants reported no IUC placements or removals at 8 weeks posttraining and an inability to sustain confidence or skills. These participants primarily cited external concerns, such as a clinic closing or working remotely because of COVID-91. Our future study will examine these barriers and make targeted improvements to our training program, perhaps adding a longitudinal technical assistance component.

### Conclusion

NCTCFP successfully converted well-established onsite IUC training into a virtual format to meet the needs of clinicians and sexual and reproductive health organizations during the pandemic. By grounding the virtual training in experiential and behaviorist learning theories, participants learned psychomotor skills for IUC placement and removal. Participants reported skill acquisition, change in practice, and high satisfaction. The 8-week follow-up evaluation data are not robust because of limited responses. For this reason, new approaches to increase participation will be implemented in the future. Participation will be incentivized via continuing education credit or case study analysis to gather sufficient and meaningful data to assess the training. Furthermore, we realize that longitudinal data collection is needed to assess long-term impact of the virtual IUC training.

Hence, adapting traditional onsite training to a virtual format may offer more opportunities for clinicians with limited access to onsite training and may ultimately forge the future of clinical skills training.

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