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Commentary

Establishing and Conducting a Regional, Hands-on Long-Acting Reversible Contraception Training Center in Primary Care

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Although safe and effective (Stoddard, McNicholas, & Peipert, 2011; Winner et al., 2012), there are many barriers to increasing intrauterine and implantable contraception (collectively known as long-acting reversible contraception [LARC]) access. These barriers include systems issues (National Institute for Reproductive Health, 2016; Pace, Dolan, Tishler, Gooding, & Bartz, 2016; Rubin, Davis, & McKee, 2013), as well as a shortage of clinicians trained to insert and remove the devices (Nisen, Peterson, Cochrane, & Rubin, 2016). In particular, there is a national need to train more primary care clinicians in LARC insertion and removal (Gilmore et al., 2015; Harper et al., 2013; Nisen et al., 2016). Initiatives such as Upstream, Get LARC, LARC First, and Beyond the Pill offer critical systems and educational support for sites to increase LARC provision. In these programs, as in the majority of U.S. LARC training programs for clinicians in practice, the insertion and removal training occurs on simulators only (American College of Obstetricians and Gynecologists, 2018; "Beyond The Pill site-training," n.d.; Harper et al., 2015; Lewis, Darney, & Thiel de Bocanegra, 2013).

Although simulators are a well-established training modality (Bartz, Paris, Maurer, Gardner, & Johnson, 2016; Scalese, Obeso, & Issenberg, 2008) and can meet some learning needs (Nippita et al., 2018; Nitschmann, Bartz, & Johnson, 2014), supervised training with live patients is critical for training to competence in new procedural skills, including LARC (Nippita et al., 2018; Potter, Koyama, & Coles, 2015). Unless a practice site has clinicians who can train others, there are few opportunities for clinicians-in-practice to learn hands-on LARC insertion and removal with actual patients (Lee, 2007; Pace et al., 2016).

To address this training gap, the Institute for Family Health (Institute) and the Reproductive Health Access Project (RHAP) started the Hands-on Reproductive Health Training (HaRT) Center to train practicing primary care clinicians in full scope contraception, including LARC insertion and removal.

The Institute is a large, federally qualified health center network in New York that is staffed with family physicians and has three family medicine residency programs. RHAP is a national nonprofit organization based in New York City that trains and supports clinicians to expand access to reproductive health care. The HaRT Center was established via a collaboration between the Institute and RHAP. In this commentary, we describe our experience and lessons learned developing and conducting training through the HaRT Center.

Establishing the HaRT Center

Key components in developing this unique hands-on training center included having an administration at the Institute that is supportive of training clinicians from other organizations, clinical sites with a high volume of LARC provision in established reproductive health procedure sessions, and experienced LARC trainers.

Addressing professional liability coverage and credentialing of trainees are two primary administrative obstacles the HaRT Center overcame. The Institute and RHAP developed a LARC Clinical Placement Agreement that outlines the roles and responsibilities of both the institution sending trainees and the institution providing the training (the Institute). The agreement outlines certificate of liability insurance requirements to be provided by the trainee's home institution, and trainee credentialing requirements. Clarifying and standardizing this

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process enables trainees from multiple outside facilities to participate in the HaRT Center.

Another necessary component for procedural training is having a high-volume training site. The Institute has a family physician–staffed, robust clinical and teaching program in full-scope reproductive health services. In addition to integrating LARC into general family medicine services across its 17 primary care sites, the Institute has several weekly procedure sessions dedicated to providing and teaching full-scope reproductive health care. These sessions were established over a decade ago to support the training needs of Institute residents and fellows.

The HaRT sessions occur at one of the Institute's health centers during a procedure session one weekday afternoon per week and two weekend sessions per month. Two HaRT trainees attend each session. Each trainee is scheduled for six sessions. All trainees are primary care clinicians who work at sites that largely serve adolescents and are interested in either expanding or initiating LARC access.

The HaRT Center curriculum was developed by Institute family physicians with expertise teaching procedures and reproductive health, and is informed by existing procedural training literature. It uses a competency-based, learner-centered approach with a stepwise pedagogical framework (Sawyer et al., 2015). The framework includes cognitive and psychomotor skills acquisition with didactics, observation, simulator training, and hands-on training with patients. Trainers consistently model and teach the use of nonjudgmental, patient-centered language, attention to patient comfort and desires, and evidence-based contraceptive care using the Centers for Disease Control and Prevention's Contraception Medical Eligibility Criteria and other evidence-based tools (Curtis, 2016; Curtis et al., 2016; Reproductive Health Access Project, n.d.). The HaRT Center web portal contains contraception information, articles, counseling tools, and LARC insertion and removal videos that complement the didactics and hands-on training sessions.

At the beginning of each training session, trainees have focused didactics and practice on the LARC simulator. The remainder of the session consists of direct patient care. Hands-on work with both simulated and live procedures begins on the first training day. As trainees move through the training, they have increasing independence in the LARC counseling, insertion, and/or removal. Trainees are observed during every procedure, and receive feedback from trainers after every patient encounter. Trainers model use of patient-centered language in the examination room throughout all phases of the training.

Trainers complete daily training logs documenting procedures performed, assistance needed with each procedure, and comments on trainee's progress. When the training sessions are complete, the lead trainer writes a summative evaluation using a 3-point scale (beginner, developing competence, competent) in eight training areas—medical knowledge, interpersonal and communication skills, patient care skills, intrauterine device (IUD) insertion general, patient care skills copper IUD–specific, patient care skills levonorgestrel IUD–specific, patient care skills implant insertion, patient care skills IUD removal, and patient care skills implant removal—representing 54 distinct competencies (Kuehn, 2009).

We launched the HaRT Center in October 2014. As of January 1, 2018, we have trained 28 pediatric and family nurse practitioners (NPs), 13 physicians, and 4 physician assistants. The majority of trainees came into the training with self-reported limited speculum skills and limited LARC knowledge and counseling. Only a few had prior experience inserting or removing LARC.

During their training, the trainees inserted a median of 8 IUDs (range, 2-12) and 2 implants (range, 0-6), and removed a median of 2 IUDs (range, 0 - 7) and 2 implants (range, 0-7). All trainees performed at least one IUD insertion on a patient, 93% performed implant insertion, 80% IUD removal, and 82% implant removal.

Feedback from Trainees

Thirty-four trainees completed a Post Training Feedback Survey. The majority report feeling competent in all areas assessed with the exception of IUD insertion and bimanual examination. Although 78% of respondents rate the IUD insertion training as excellent in meeting their needs and expectations, only 41% and 50% rank themselves as competent in copper and hormonal IUD insertion, respectively. At their home site after training, 59% report they are providing implant insertion, 50% implant removal, 32% IUD insertion, and 35% IUD removal.

Comparing the trainees self-reported post training competency with that of their pretraining intake form, there is a large increase in those rating themselves as competent in regard to medical knowledge of LARC (before, 5% self-report as competent; after, 82%), and patient-centered LARC counseling (before, 9% competent; after, 94% competent).

Feedback from Trainers

On the summative evaluation, more than 75% of trainees were deemed competent in 44 of the 54 competencies assessed. Areas with the lowest assessed post-training competency include bimanual examination, speculum placement, loading the copper IUD, and some steps for implant removal.

The qualities most frequently cited on the summative evaluation as helpful for achieving competency included trainees coming to the training with a baseline knowledge of LARC methods and/or basic gynecological examination skills. Motivation to learn, for example, reading on the topic or practicing between sessions, was another key factor in trainee success.

Trainer-identified issues impeding competency included low-volume training days, variability in a trainee's competence and confidence with procedures, and difficulty translating skills learned on the pelvic model to live patients.

HaRT Center Lessons Learned

Based on our experiences, we have identified several key components in developing a hands-on LARC training center. From the onset, the sponsoring health care institution must be supportive of training clinicians from other organizations, and protocols must be developed to address professional liability and credentialing. The training center site must have experienced LARC trainers as well as specific clinical sessions with a high volume of LARC provision.

Virtually all of our trainees entered the HaRT program with minimal gynecological examination skills and little LARC procedural experience. After the program, trainees and trainers agree that the trainees are competent in the majority of implant-related and IUD removal domains in which they are evaluated, and that trainees need more bimanual examination and IUD insertion training to reach competency. Interestingly, there is a discrepancy in perceived competence in speculum placement. Trainers, but not trainees, identify speculum placement among the areas with lowest competency. We suspect this reflects the trainers' evaluation encompassing the speculum insertion skill

itself as well as patient comfort. During LARC training, if there are a plethora of clinicians requesting training, we suggest selecting those with prior procedural experience, and for IUDs specifically those with speculum placement experience and a high level of motivation.

We considered assessing whether there is a specific number of insertions and removals that a trainee must do to reach competency. However, we found that, because of variability in baseline trainee skills set, inherent manual dexterity skills, motivation, and confidence, a number-based finding was not reliable. In our experience, trainees who came into the HaRT program with baseline knowledge of, or comfort with, procedures and gynecological examination skills were able to develop their LARC procedure skills more quickly. For example, clinicians who had emergency room or intensive care nursing experience were often more comfortable learning LARC procedures as compared to clinicians who had not needed manual skills in prior work settings. Additionally, we found that, among NPs, family NPs have more speculum and gynecological examination training as compared with pediatric NPs. Clinicians entering the HaRT with these disparate work and training experiences needed different levels of support to build their skill set. Trainers found that, for those trainees who entered the program with a low baseline level of comfort with performing and interpreting bimanual examinations and placing a speculum, a great deal of the hands-on time with patients had to be devoted to these skills. Overall, trainers found teaching implant insertion and removals to be relatively easy as compared to IUDs.

Although our training addresses the contraception counseling and procedural training for LARC, we are cognizant that overall systems support is also critical for integration of LARC into practice (Pace et al., 2016). Models such as Upstream, Get LARC, LARC First, Beyond the Pill, and others are effectively training providers in contraceptive counseling and addressing many of the onsite logistical barriers to providing LARC (Harper et al., 2015). However, if a facility does not have clinical staff adequately trained in the LARC procedures, they will not be able to provide LARC onsite. Developing centralized, cost-effective, replicable models for training clinicians-in-practice to competency in LARC insertion and removal addresses a critical barrier to LARC access nationwide. We hope that our model for a regional, hands-on LARC training center in a primary care clinic may provide a blueprint for others to develop similar LARC training programs for clinicians-in-practice.

Based on feedback from trainees, we are working toward incorporating observed LARC insertions and removals at the trainees' home sites as part of the HaRT training. The observation ideally would be with a LARC experienced colleague of the newly trained LARC provider. For those newly trained LARC providers without experienced colleagues at their home institution, we plan to have HaRT trainers go to the trainees sites. We have piloted this with a few trainees and it seems to be a critical feature to support these new LARC providers.

In light of our experience, we suggest that sites considering a program similar to HaRT encourage potential trainees to enter the program with a strong foundation in contraception counseling and basic gynecological examination skills so that trainees can focus on the unique procedural aspects of LARC insertion and removal that can only be learned with patients choosing LARC. If there is an abundance of clinicians requesting training, we suggest selecting those more motivated to learn LARC, those with prior procedural experience, and, for IUDs specifically, those with speculum placement experience.

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