

Can Pediatricians Provide Long-Acting Reversible Contraception?



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ABSTRACT

Study Objective: In the United States, 40% of high-school students have sex; few use highly effective and safe long-acting reversible contraceptives (LARCs): intrauterine devices and implants. Pediatricians are key health providers for many adolescents, yet few provide LARCs. Our objective was to understand the pragmatics of provision of LARCs (rather than beliefs or attitudes) and identify barriers to and opportunities for LARC provision by community-practicing pediatricians.

Design: We conducted a qualitative descriptive study using semistructured interviews. Qualitative methods are valuable for generating conceptual models of complex phenomena.

Setting: Set in a midsized Midwestern city, our study was community-based.

Participants, Interventions, and Main Outcome Measures: We interviewed 23 pediatricians to understand their views about providing contraception (including LARCs) to adolescents. For analysis, we developed a coding schema and applied it using a priori and open coding.

Results: Several inter-related themes regarding challenges to provision of LARC emerged: limited motivation for on-site LARC provision or referral streams, low pediatric patient interest in LARC, lack of pediatrician training about LARC provision, and inadequate structural elements for on-site placement of LARCs in pediatric offices. Each challenge could be remedied, because pediatricians were motivated to provide adolescent patients with high-quality care. Improvements in these inter-related conditions could facilitate pediatrician provision of LARC.

Conclusion: Pediatricians and their patients want to prevent pregnancy, but current practice norms limit LARC provision by pediatricians. To increase LARC access in pediatrician offices, we suggest training in LARC provision and patient education for medical students, residents, and pediatricians; communicating about LARC methods with adolescents to increase patient demand; and systemic changes to improve referral processes and/or allow on-site LARC placements.

Key Words: Adolescents, Contraception, Pediatrics, Long-acting reversible contraception, Qualitative, Teen pregnancy

Introduction

The United States has the highest teenage pregnancy and abortion rates among high-income countries.¹ Approximately 40% of high school students have had sexual intercourse,² and of the estimated 574,000 teenage pregnancies in the United States in 2011, 75% were unplanned.³ Although most teenagers claimed to have used some form of contraception during last intercourse, most used methods with lower typical use efficacy: condoms, withdrawal, and oral contraceptive pills.⁴ Long-acting reversible contraceptives (LARCs) are the most effective methods and are also the least utilized among adolescents. LARCs include intrauterine devices (IUDs) and the subdermal etonogestrel contraceptive implant. LARCs are safe, more than 99% effective, and user-independent.⁵ The American Academy of Pediatrics recommends LARCs as first-line contraceptive methods for adolescents.⁶ Despite their safety, efficacy, and ease of use, only 4.3% of US women aged 15-19 years who use contraception use a LARC method.⁴

Although provider attitudes and beliefs (such as misconceptions about who is eligible for LARCs) have been documented as limiting LARC uptake in younger patients,⁷⁻¹⁰ other aspects of LARC provision are particularly important for younger women, and have received inadequate attention. Provision of LARCs to adolescents requires that these patients have the opportunity to learn about LARCs, have access to LARC methods, and have providers who are interested in inserting the methods.

Contraception is considered within the scope of practice of general pediatricians, and is reflected within the content specifications for board certification.¹¹ Pediatricians who care for adolescents have the unique opportunity to reduce unintended teen pregnancy through LARC provision.¹² LARC provision to adolescents in family medicine and obstetrics/gynecology clinics has received increasing attention,^{8,13} but, despite the very high risk of unintended pregnancy among teenagers, few studies have focused on LARC provision in pediatric practices.¹³⁻¹⁷ Our study represents, to our knowledge, the first evaluation of only-pediatricians (that is, community practicing pediatricians who are nonspecialists in adolescent medicine) about placing LARCs in their offices. Most preventative health care visits for 11- to 14-year-olds, and a sizable proportion for 15- to 17-year-olds, are made to pediatricians.¹⁸ We designed a qualitative study to gain a

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deeper understanding of the factors that influence LARC provision in the pediatric setting. Qualitative data are not necessarily intended to be generalizable; instead the usefulness of this study lies in providing rich and complex insights into the experiences of pediatricians.

Our participants held varied attitudes and beliefs about LARCs; these are described in detail elsewhere.¹⁰ We have written about the importance of pediatricians' beliefs about LARC methods, and described how pediatricians who held negative beliefs and attitudes toward LARCs were unlikely to counsel on or provide these methods. In this report, in contrast, we examine other elements—motivation to provide LARCs and structural elements for on-site LARC placement—that are necessary for pediatricians to provide LARCs.

Materials and Methods

The methods for this study have been described previously.¹⁰ To summarize briefly, in 2014, because of our interest in the practices of community-based pediatricians regarding LARCs, we conducted qualitative interviews with 23 pediatricians about provision of long-acting reversible contraception at participants' practices. We recruited community-practicing pediatricians from 23 clinics who were affiliated with the Division of Ambulatory Pediatrics at a children's hospital. Study staff conducted 30-minute interviews at participants' offices using a semistructured guide; these interviews were audio-recorded and later transcribed by the person who had conducted them. To analyze the qualitative data, our team developed a coding schema, which included codes that we determined were important at the outset (a priori codes) and codes to represent themes and concepts that emerged as we reviewed transcripts (open codes). The 3 study investigators performed all of the coding. This iterative approach permitted us to generate a conceptual model of provision of LARCs by pediatricians. After incorporating all codes into our schema, we applied the coding schema to all interviews using NVivo 10 (QSR International, Victoria, Australia). This protocol was approved by the Nationwide Children's Hospital institutional review board.

Results

Our participants had practices that were typical of many pediatric offices: they saw adolescents regularly (on average 17 visits per week) and the amount of time for well visits and problem-focused visits was short: on average, 10 minutes. Most of our participants (17 of 23) were female. Clinics in the network from which we recruited see more than 30,000 patients annually who are aged 12 and older and of diverse racial and ethnic identity.

We draw from our qualitative data to illuminate the inter-related factors that serve as barriers to pediatricians providing LARC methods.

Lack of Motivation to Provide LARC on-Site or Improve Referral Limits on LARC Provision

Although generally supportive of the idea of LARCs, several pediatricians described a personal lack of reproductive health care experience, an ensuing discomfort with

pelvic exams, and a lack of interest in adding that care to their practice.

“Pelvic exams are something I've done [only] a handful of in the past 6 years as a pediatrician. So even inserting an IUD is not something I'd be interested in doing. There wouldn't be enough volume to make it so that I would be comfortable.” (Participant 3)

If a small number of patients bring up LARC methods, there is little incentive for providers to learn how to provide LARCs. After saying that he would never become a provider of IUDs, this provider explained:

“It's not cost effective. I mean if you're going to do 1 IUD every 3 months, it makes no sense. It's just, you're not going to be doing it appropriately, you're not going to have the right training... It doesn't make sense to do something so sporadically.” (Participant 11)

Because most pediatrics offices do not provide on-site insertion of LARCs, referral might be the only way that adolescent patients are provided with LARCs in these offices. Our participants noted that their own lack of knowledge about LARC methods limited their ability to educate patients about LARCs, and explained that they would have to refer to someone with knowledge and training that they themselves lacked.

“Well, I might mention that it's an option, but I would say if you want more information about that, you need to go to the teen doctors and talk to them because I don't have all the details about it. Or their gynecologist... [I] just let them know it's available.” (Participant 17)

Many providers explained a version of the following: when a patient initiates a conversation about contraception, the provider refers the patient to a specialty clinic for contraceptive-related services: “If they do ask me, I will sometimes mention the various types... that might be available, but I don't go into specific pros and cons of each again. I refer to the teen clinic doctor.” (Participant 18)

Some providers mentioned barriers to referral, including concerns about urgency and lack of follow-through.

“Sometimes it's a time issue... [Patients] don't get in that timely. Adolescent [clinic] takes a while, maybe about a month I guess... Usually if it's a birth control patient, I want them seen next week, not next month... So that that would be the only barrier... I don't know, specifically, how many of them actually follow-up.” (Participant 11)

One participant thought referral was detrimental to patient care.

“In ambulatory [we see] about 1000 kids per month... Maybe 100 of them are seen in teen clinics... so the other 900 do not have access to Nexplanon or an IUD or anything. They have to be referred. So I think that if there could be a way to have all of the kids have access, to have a doctor at each site who is willing to place Nexplanon ... They can go over and place the Nexplanon in 5 minutes and make sure it's done.” (Participant 19)

However, another participant articulated that referral is the most appropriate way to handle LARC provision.

“I don't necessarily think that our primary care clinics should be doing IUDs... and the Nexplanon. I think the way that we are

doing it in primary care is the correct way. So I don't think that we need to improve anything... They have the carved-out teenage clinics for those people wanting to do that kind of thing, the access to them is good, I think. At least my experience has been when I wanted to get somebody in, I got them in quickly. They have the time, they have less patients... So I, I think that's fine. I mean I'm happy with that way." (Participant 6)

Although LARC methods are recommended and acceptable contraception methods for teens, and LARC might be an ideal contraceptive method for some patients, many pediatricians in our study were not motivated to initiate discussion about LARC methods, and instead reported waiting for patients to request the method. For the most part, patients are not requesting LARC methods. Providers opined that patients are accustomed to pills, and not yet accustomed to LARC methods.

"Most of the people that come in know that they want OCPs and they get them and they're appropriate for them and they do fine with them... I would [recommend LARCs] if I had a patient that fit that situation, but I just haven't yet." (Participant 3)

This provider is waiting for a patient who would "fit the situation" of being well-suited for LARC (which the provider described as not wanting to take a daily pill, not wanting to be pregnant for years, and willing to use condoms). If patients were asking for LARC methods, that could serve as an incentive for providers to learn more and push for their offices to be able to provide LARCs. Several participants, when asked what they do when patients ask about the IUD, said "No one has brought IUDs up," reinforcing the idea that an IUD is not a method worth offering. Overall, patient demand for LARC at pediatricians' offices was low. Even in clinics with a larger numbers of teens, participants intimated that few requested LARC methods.

Some participants were overall unenthusiastic about providing any sexual health care, explaining that pediatricians can be reluctant to deal with "adult" issues, such as sexual activity, and believe that LARC provision is not part of pediatrics.

"I think pediatricians in general do pediatrics because they don't want to deal with adult issues, of which sex is one... And that's why every time a teenager comes in, everybody in the room groans... I just don't think that it's... my job to put IUDs in. That is just not a pediatrician's job." (Participant 22)

Another participant articulated the way she wishes to engage with provision of contraception and LARCs, explaining, as previously mentioned, which activities are "not her job":

"I'm ok with birth control pills, I'm ok with depo, I'm ok with somebody else putting Nexplanon in. I'm not going to do it myself, that's not my job. That takes training, and it takes time... I'm ok with it if somebody else wants to do it." (Participant 20)

Inadequate Structural Elements for on-Site LARC Insertion in Pediatrics Offices Limits Provision

Most participants described limited on-site provision of LARC in their offices (no IUD provision; modest etonogestrel

implant provision), and most lacked the structural elements of time, facilities, or training to provide on-site LARCs to adolescent patients. Although we encountered a few "LARC pioneers" who have sought education about LARC, strongly recommend to their patients, know how to use the referral system, and/or have placed LARCs themselves, they were a minority.

Several pediatricians described their clinics as not doing any procedures and not having the appropriate time allowance for procedures, which would preclude on-site provision of LARC.

"We just don't have the setting to [insert implants]... In our ambulatory clinics, it's just not conducive to do a procedure like that... Not only the physical set-up, but also the time. We don't have time allocations like that built into our templates... We really don't do any procedures." (Participant 9)

The barrier to providing IUDs on-site is even greater than the barriers to implants.

"We don't even have a table with stirrups (laughs). So we can't really do pelvic exams... and I think I would need to be working in a setting that was just a bit more amenable to doing those things. Right now that is not the way our clinic is arranged." (Participant 1)

One participant summed up the limitations they experience in providing on-site LARCs:

"We have a system that basically asks the physicians to see patients very quickly and part of our reward system is based on how quickly we see our patients. So adding a teen to the mix... Those physicians are saying "I'm not gonna address this issue, I'm gonna send you to teen clinic [for LARCs]... we'll address it later." Many young people don't have that immediate access... So many of the kids don't go for the referrals when they're referred out... The infrastructure does not allow the teens to have their needs met right in their communities." (Participant 19)

Some participants mentioned additional worries about patient confidentiality:

"One of the biggest things that would help me is... knowing exactly how to get it to the patient without billing for it, or having it in their medical record... [I] need to know how to protect [the patient's confidentiality]." (Participant 3)

Other pediatricians described their limited training in LARC provision as a barrier to provision, and the need for training to facilitate provision.

"Lack of education would be the biggest barrier. Because if it's something you don't do often, it's not something you're going to feel comfortable with... I'm not well versed on it." (Participant 11)

"I definitely want to learn more about them, about the newer IUDs that are out on the market right now. And I don't know if [I] would be interested in placing them in clinic. I would potentially be interested in placing Nexplanon if I were to receive proper training." (Participant 6)

Some participants, when asked about IUD provision, expressed doubt about whether the services were even available: "Does adolescent medicine clinic do that already? I know they did Implanon, but I didn't know they did IUDs." (Participant 2).

Discussion

In this qualitative study of primary care pediatricians affiliated with a large children's hospital, we illuminate new insights about barriers and facilitators to pediatricians providing LARC methods to their patients, and identify new opportunities for education. Our findings describe a set of inter-related factors that work to reinforce or to challenge provision of LARCs to adolescents by community-practicing pediatricians (Fig. 1).

Our findings suggest that education to improve pediatrician knowledge is a necessary precursor to pediatricians providing LARC methods. Increased knowledge could enhance pediatrician motivation to provide LARC methods to adolescents. Likewise, our findings suggest that for provision of LARCs to increase in pediatrician offices, adolescent patient interest in LARC might need to be stimulated outside the clinic, and then can be reinforced by providers in the clinic. If providers are motivated, and patients are interested, clinics might be more likely to adapt their systems to improve referral protocols for LARCs or to permit pediatricians to provide LARCs in their offices.

For pediatricians to provide LARC methods, education is critical. Education for pediatricians should focus core information about contraceptive methods: effectiveness, duration of use, mechanism of action, common side effects, indications and contraindications, and adverse events associated with method use or placement. Pediatricians should be familiar with the insertion procedures and be able to discuss these with their patients. For the pediatricians who are already providing contraception, the next step is to gain these competencies for LARC methods.

To date, assessment of barriers to LARC provision has focused largely on attitudes and beliefs. Research findings (including those derived from this sample) from studies of pediatricians and studies that include pediatricians,^{10,13–15,17,19,20} support the notion that pediatrician misconceptions about LARCs are primary barriers to adolescent use of LARCs. We suggest that education to improve pediatrician knowledge about LARC provision (rather than educational attempts to change attitudes) will help to dismantle commonly held myths and promote favorable attitudes about adolescent use of LARCs.²¹ This education could happen via mechanisms such as educational town halls with providers, chief executive officers,

and medical directors. Likewise, training via simulation might be a useful tool to increase the competency of residents to counsel about LARC methods and place LARCs. However, targeting pediatricians in isolated interventions will not be as effective as a more comprehensive intervention that addresses patient interest and clinic structural constraints as well.²²

Although pediatricians say they would respond to patient interest in LARCs, as long as pediatricians rely on patient interest to initiate discussions about LARCs, patient demand might remain muted. Our empiric findings resonate with aspects of Kumar and Brown's narrative literature review about access to LARCs among adolescents, in which they identified providers' limited technical training and patients' lack of awareness as barriers to access.⁸ Although pediatricians in our study expected that demand for LARC should generate from their adolescent patients, the literature indicates that most teens are not well informed about LARC methods,^{23,24} and that teens expect accurate information from pediatricians for LARCs and all contraception methods.²⁵ If teens are waiting for pediatricians to suggest LARCs, while pediatricians are waiting for teens to request LARCs, these safe and effective contraceptive methods will remain underutilized. To increase LARC uptake, adolescents and their health care providers will need to have opportunities to learn about LARCs.

Several key themes emerged regarding participants' perspectives on procedures. Participants in this study had more favorable opinions about placing implants than IUDs. Because of the considerable technical skills required for IUD placement, we were not surprised with this finding. Compared with IUDs, contraceptive implant placement might be a more practical expectation for current pediatricians. Expertise required for provision of a LARC includes: technical procedural skills and ability to manage complications, competency in coding for reimbursement, and provisioning of materials. In a study among physicians who provide sexual and reproductive health care to adolescents, those whose type of training included procedures had 4 times the odds of providing implants, and more than 80 times the odds of providing IUDs.²⁶ We note, however, that many pediatricians would consider placing IUDs if certain conditions were met: if they were sufficiently trained, if the facilities were set up appropriately, if their schedule allowed (time and flexibility for same-day placements or procedure visits), and if they did enough procedures to maintain their skills. Although the challenges for current pediatricians to obtain IUD training are real, a cluster randomized trial of a 4-hour training for placement of LARC methods by family planning clinic providers showed substantial increases in LARC provision.²⁷ Medical educators should redouble efforts to provide trainees with opportunities to place IUDs and implants, and push for training in LARC procedures as standard for pediatric trainees.

Referrals need careful attention when pediatricians cannot provide services their patients need. In this study, participants were sometimes uncertain to whom they should refer patients, did not know which LARCs were provided by the referral physicians, were concerned about

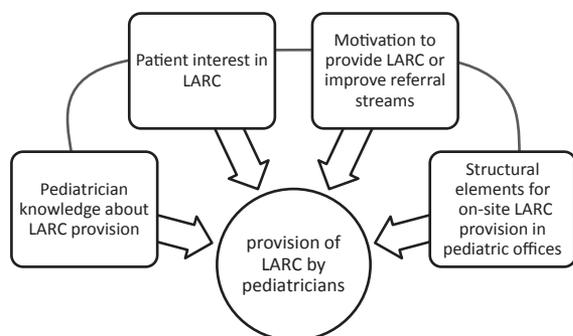


Fig. 1. Inter-related factors that limit or reinforce pediatrician provision of long-acting reversible contraception (LARC) to adolescents.

inconvenience to their patients, and were worried that their patients would not receive follow-up care. Other participants who were disinclined to either provide sexual health services or LARCs relied on a referral protocol to do the work they would not do. In many places, to increase LARC provision, referral streams (to Title X clinics including Planned Parenthood, federally qualified health centers, and public health departments; gynecologists' offices; and Adolescent Medicine specialty clinics) might need strengthening.^{28,29} Overall, for many of our participants, although they wished to learn more about LARC provision, referral to another reproductive health care provider remained more likely than LARC provision in their offices, because of the barriers in place at the time of our interviews.

Because of our sampling strategy and the qualitative nature of our data, the purpose of our study was to generate insight about a complex situation, and to investigate ambivalence and cultural norms, for a comprehensive understanding of the constraints and opportunities that pediatricians face in providing LARC methods to their patients. In contrast to qualitative in-depth interviews, quantitative surveys, which might have the value of being generalizable, are also constrained from illuminating complexity. Our study is limited in its scope by not including pediatricians from other regions. Although our findings might not be generalizable, the phenomena that we describe for community practicing pediatricians do not appear to be attributable to our particular local Midwestern geographical/cultural context. Overall, by including only pediatricians associated with a large hospital, our findings might underestimate the barriers to LARC provision among all community practicing pediatricians.

Pediatricians can provide LARC methods, especially when there are opportunities to learn more about LARCs. This provision can be either inserting the devices in their offices, or referring patients to providers who can insert them. When pediatricians understand more about LARC methods, they can have improved communication with patients about LARCs, which can result in more adolescents choosing LARC methods. Increasing interest in LARCs among adolescents can in turn promote and reinforce referral to specialty clinics and on-site pediatric LARC provision. Pediatricians, with core missions of preventative and therapeutic care, can be instrumental in providing LARC methods to adolescents.

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