Barriers to Health Care Providers’ Provision of Long-Acting Reversible Contraception to Adolescent and Nulliparous Young Women

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Abstract: Despite recommendations for long-acting reversible contraception (LARC) as a first-line contraceptive method for adolescents and young women, its use in the United States remains low. This integrative review highlights previously unidentified barriers to health care providers’ provision of LARC to adolescent and nulliparous young women. Four themes emerged: Appropriateness of Candidates and Contraceptive Safety, Provider Training and Work Setting, Appropriate Resources, and Opportunity. Raising awareness of barriers to LARC use may galvanize providers to find solutions. Nurses and other clinicians can remain aware of new contraceptive options and guidelines to reduce the risk of unintended pregnancy among adolescents.
Unintended pregnancy remains a significant problem in the United States. In 2011, 45% of pregnancies in the United States were unintended (Guttmacher Institute, 2016), and 77% of adolescent pregnancies are unintended (U.S. Department of Health & Human Services, 2016). Both of these rates continue to be high, especially the adolescent pregnancy rate, which is substantially higher in the United States than in other industrialized countries (Centers for Disease Control and Prevention, 2015). Another study indicated that there were 57 pregnancies per 1,000 female adolescents ages 15 to 19 years compared with 25 per 1,000 in France and 14 per 1,000 in the Netherlands (Sedgh, Finer, Bankole, Eilers, & Singh, 2015).

Unintended pregnancy has a variety of negative effects including adverse maternal and child outcomes (Guttmacher Institute, 2016), such as maternal depression, increased likelihood of physical violence during pregnancy, low birth weight, birth defects, and poor mental and physical health during childhood (Office of Disease Prevention and Health Promotion, n.d.).

Healthy People 2020 is an initiative of the Office of Disease Prevention and Health Promotion that provides national health objectives for Americans. It has set a national goal related to family planning to “improve pregnancy planning and spacing, and prevent unintended pregnancy” (Office of Disease Prevention and Health Promotion, n.d., paragraph 1). A large part of preventing unintended pregnancy is through the effective use of contraception.
Long-Acting Reversible Contraception

One type of birth control rising in prominence is long-acting reversible contraception (LARC). Such methods include intrauterine devices (IUDs) and a contraceptive implant, Nexplanon (Merck Sharp & Dohme Corp., Whitehouse Station, NJ). LARC is highly effective, lasts for long periods of time, is reversible, and takes adherence out of the equation (American College of Obstetricians and Gynecologists [ACOG], 2014). “Over the long term, LARC methods are 20 times more effective than birth control pills, the patch, or the ring” (American College of Obstetricians and Gynecologists, 2014, p. 1).

ACOG has set forth contraceptive guidelines that recommend LARC as the first-line method of contraception for all adolescents (ages 15–19 years) and young women (ages 20–24 years), including those who are nulliparous (American College of Obstetricians and Gynecologists, Committee on Adolescent Health, 2012). The American Academy of Pediatrics endorsed this recommendation in 2014 (American Academy of Pediatrics, 2014). However, in the United States, LARC use remains low in women ages 15 to 44 years, with just 6.4% using IUDs and 0.8% using the contraceptive implant in 2012 (Guttmacher Institute, 2015).

Selecting a LARC method is a joint decision that involves a woman and her health care provider. This integrative review will address whether health care provider barriers to LARC use in adolescent and nulliparous young women influence contraceptive decision making among these women. This information and additional literature will be used to identify the barriers to use in
adolescent and young adult female populations, discuss implications for practice, and provide recommendations for future research.

Methods

Studies reviewed were identified from the Internet databases of PubMed, Ovid, Cochrane Library, CINAHL, and the British Nursing Index. Key search terms included long-acting reversible contraception, intrauterine devices, adolescents, adolescent, nulliparous, barriers, and health care providers. Articles written in English were considered and included in this review. Additional articles were eliminated if they did not examine LARC, health care providers’ perspectives or opinions, and potential barriers to use. The populations studied in these articles needed to include adolescents, nulliparous women, and/or young women. Five articles meeting these criteria with the described focus were selected. Statistics and conclusions regarding health care provider barriers to LARC use in adolescent and nulliparous young women were extracted. Furthermore, the references in each of the studies were reviewed for additional information.

Common threads regarding specific barriers, perspectives, and practices were identified throughout the five articles and became the focus of this article. All related opinions were included. Any information in the articles that did not have strong relevance to the topic was not included. Findings with higher levels of evidence were weighted more heavily.

Findings
After careful review of the studies, four major themes emerged. The themes are *Appropriateness of Candidates and Contraceptive Safety*, *Provider Training and Work Setting*, *Appropriate Resources*, and *Opportunity*.

**Appropriateness of Candidates and Contraceptive Safety**

ACOG recommends that LARC be used as first-line contraception for adolescents and nulliparous young women (American College of Obstetricians and Gynecologists, Committee on Adolescent Health, 2012). However, Luchowski et al. (2014) found that among 1,150 physicians surveyed, only 43.3% agreed with this recommendation. Those who found unintended pregnancy to be a challenge within their practice were more likely to consider IUDs for adolescents and nulliparous women.

In one study, 43% of participants identified adolescents specifically as appropriate candidates for IUDs (Luchowski et al., 2014). Similarly, 30% were unaware that IUDs were safe for adolescents (Tyler et al., 2012). Rubin et al. (2013) found that no pediatricians in their study examining New York City physicians’ views on LARC identified adolescents as appropriate candidates.

Luchowski et al. (2014) found that the percentage of participants who identified nulliparous women as appropriate candidates for LARC were slightly higher, at 66.8%. However, although nulliparous women were identified as candidates for LARC use, Tyler and colleagues (2012) found that 80.2% of office-based physicians and 67.5% of Title X providers reported infrequently providing the copper IUD to nulliparous women. In a separate study, Whitaker et al.
(2013) hypothesized that health care providers play a large role in administration of IUDs to this group. Therefore, it is imperative that they are able to identify these appropriate candidates and provide them with information on this contraceptive option.

Some providers remain unaware of LARC safety for their patients, regardless of age or parity. Tyler et al. (2012) found that 16.7% of office physicians and 12.5% of Title X providers viewed the copper IUD as “unsafe” or “very unsafe” in general, with similar numbers for the levonorgestrel-releasing IUD. Safety misconceptions were greater in family medicine practices (44.2%) and among those who had not received insertion training (64.1%) than among obstetrician-gynecologist providers (14.7%) and those who had received insertion training (18.6%). Safety misconceptions were also greater in those without available onsite copper IUDs (46.8%) and levonorgestrel-releasing IUDs (44.1%) and those who completed medical training more than 25 years ago (38.5%), according to Tyler et al. (2012).

**Provider Training and Work Setting**

The training and work setting of health care providers seem to directly affect their provision of LARC. Blumoff Greenberg, Makino, and Coles (2012) found that 88% of providers working in either obstetrics and gynecology or family medicine reported providing some form of LARC as opposed to 24% working in internal medicine or pediatrics. Specifically regarding contraceptive implants, 47% of providers working in obstetrics and gynecology reported placing them, as opposed to 24% working in internal medicine or pediatrics. The researchers determined that exposure to women’s health training was the largest predictor of LARC provision (Blumoff Greenberg et al., 2012). Rubin et al. (2013) had similar results. They found that pediatricians
offered the most limited contraception options. In obstetrics and gynecology and family medicine, the contraception options offered had greater variance. Additionally, the researchers found that most physicians practiced what they had learned in their residency regardless of whether it reflected the current guidelines, including the failure to offer LARC to nulliparous women (Rubin et al., 2013). The type of practice and physical practice setting also had some impact on health care providers’ provision. Providers practicing in suburban and rural settings were more likely to provide LARC than those in urban settings (Blumoff Greenberg et al., 2012). Residency sites were more likely to offer a wider range of contraception (Rubin et al., 2013).

**Available Resources**

An additional factor affecting LARC availability among health care provider practices was the continuing education of providers. In the study by Luchowski et al. (2014), 38.9% of providers stated that they had received some sort of continuing education on IUDs within the past 2 years. Those who had received continuing education on IUDs were more likely to provide them to nulliparous women. One specific type of continuing education was an informational clinical publication on IUDs by ACOG. This publication contained up-to-date information including appropriate candidates. Luchowski et al. (2014) found that 70.2% of their study participants had received this publication from ACOG within the past 5 years, and 39.1% changed their practice based on the publication. Most of the changes these practitioners made reflected an increased willingness to offer, recommend, and insert IUDs in adolescents and nulliparous women (Luchowski et al., 2014). This highlights the need for and impact of continuing education for providers on LARC.
However, despite its practice recommendations, ACOG does not have one set of clinical guidelines for providers to follow. Physicians from the study by Rubin and colleagues (2013) stated that they desired such a guideline on the use of LARC in adolescents. The participants reported that such a guideline would alleviate any remaining concerns (Rubin et al., 2013).

**Opportunity**

The final barrier identified is related to the lack of opportunity for LARC administration. Beginning with device availability, 100% of obstetrician-gynecologist offices and 60% of family medicine practices had IUDs available for insertion onsite, but no pediatrician offices did (Rubin et al., 2013). Furthermore, only 2 of the 17 sites surveyed had implantable contraception available, both of which were family medicine offices (Rubin et al., 2013). Tyler et al. (2012) found that those practices without onsite IUD availability had a higher rate of infrequent provision to nulliparous women.

Contraceptive counseling on LARC represents an additional barrier, particularly with the adolescent population. Rubin et al. (2013) found that counseling was more likely where adolescent care was provided and supported. Participants in this study stated that parental resistance to adolescent sexuality and contraception education and distribution was high in many practices. Therefore, if the provider was able to counsel an adolescent without a parent present, LARC counseling was more likely. Providers also feared that hormonal contraception use would lead to decreased condom use and thereby increase adolescents’ risk for sexually transmitted infections. Therefore, when providers perceived an increased risk for sexually transmitted infections, this resulted in less counseling regarding IUDs. In addition, health care providers
were less likely to provide counseling on implantable contraceptive methods, especially when providers lacked knowledge on these methods and the practices did not offer the methods onsite (Rubin et al., 2013).

Discussion

As set forth by the ACOG guidelines, LARC should be the first-line contraceptive option for adolescent and nulliparous women. Increased uptake of LARC may continue to lower the rate of unintended pregnancy in this population. However, overall use remains low. This literature review examined health care provider prescription barriers to LARC use in adolescent and young adult women. A number of barriers were found, including concerns about the appropriateness of LARC use in adolescent and young adult women and regarding the safety of LARC. In addition, health care providers lack sufficient knowledge and training of insertion methods for IUD and contraceptive implants. Another barrier is the lack of availability of the method in many practices, especially pediatric practices. Several health care providers also cited parental resistance to contraceptive counseling and availability as a barrier.

There were several limitations to these studies. In general, the studies had Level III evidence according to the Johns Hopkins Evidence-Based Practice Rating Scale (Newhouse et al., 2005). However, some samples were limited by size and represented only specific geographic areas, practice settings, and patient populations. Researchers may have examined only one type of LARC in one specific population as opposed to all types of LARCs in both adolescents and nulliparous young women. With regard to the surveys conducted, response rates varied and may have reflected only those with an interest in the subject matter.
This integrative review itself faced some limitations. It excluded articles that were not written in English. All studies originated in the United States and were available online; no studies that originated in other countries were included. Articles that were not accessible due to reasons such as cost and restricted access to the source were excluded.

**Opportunities for Future Research**

The limitations and lack of data described provide opportunities for further research. In many practices, physician’s assistants, nurse practitioners, nurse-midwives, and nurses provide much of the education and counseling on sexuality and contraception. Therefore, research is needed to examine the perspectives of all health care professionals who provide LARC to women, not just physicians. Because some of the existing studies had small sample sizes and lack of diversity among participants, these studies warrant replication with larger and more diverse samples.

The studies described in this article show that continuing education materials play a role in the provision of LARC by health care providers. The amount and depth of continuing education materials made available to these providers should be examined to see if additional resources are needed. Studies examining strategies to improve health care provider training and exposure to LARC, as well as their counseling methods, are also needed. Because of the high rates of misconception regarding the safety of LARC and appropriate candidates, as well as low rates of LARC administration by pediatricians to adolescents, further insight into barriers for this specific group of providers is merited.


**Nursing Implications**

Although there is a need for more research, the extant studies have implications for current clinical practice. Health care providers, including advanced practice nurses, should continue to consider LARC as first-line contraceptive options for both adolescents and young women regardless of parity. Those candidates deemed appropriate should be made aware of this recommendation during the shared decision-making process. Clinicians should clearly explain the uses, risks, and benefits of LARC during each contraceptive counseling discussion.

All clinicians should strive to stay up to date on the current research and guidelines regarding LARC. Any existing resources on the subject matter should be accessed and made readily available for use. If additional information and/or training is needed, it should similarly be sought.

Not having LARC readily available for insertion was one identified barrier to use. Because the on-site availability of LARC varies by practice, health care providers should be aware of its accessibility in their personal practices. If LARC is not readily available, health care providers must work to identify additional barriers and create solutions.

**Conclusion**

Despite recommendations for LARC as a first-line contraceptive method, its use in the United States remains low. This review highlights previously unidentified barriers to LARC use in adolescent and nulliparous young women. Raising awareness of barriers to LARC use may galvanize clinicians to find solutions. This includes additional health care provider education.
about LARC methods, method safety, and appropriateness for use in adolescents, as well as Nexplanon insertion training. In addition, parents of adolescents in pediatric practices should be educated on the importance of offering contraception and sexually transmitted infection screening to this vulnerable population. It is vital for nurses and other clinicians who provide health care to adolescents to be aware of new contraceptive options and guidelines to reduce the risk of unintended pregnancy in this population.

References


