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Adolescent Experiences With Intrauterine Devices: A Qualitative Study

Elizabeth O. Schmidt, M.D., M.S.C.I. [a,*], Aimee James, M.P.H., Ph.D. [b], K. Michele Curran [c], Jeffrey F. Peipert, M.D., Ph.D. [c], and Tessa Madden, M.D., M.P.H. [c]

[a] *Department of Obstetrics and Gynecology, North Shore-LIJ Hofstra School of Medicine, Manhasset, New York*
[b] *Division of Public Health Sciences, Department of Surgery, Washington University in St. Louis School of Medicine, St. Louis, Missouri*
[c] *Division of Clinical Research, Department of Obstetrics and Gynecology, Washington University in St. Louis School of Medicine, St. Louis, Missouri*

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A B S T R A C T

Purpose: The purpose of this study was to improve understanding of adolescents' reasons for choosing an intrauterine device (IUD) and to explore experiences that led to continuation or discontinuation of the levonorgestrel intrauterine system (LNG-IUS) and the copper IUD (copper IUD).
Methods: We conducted focus groups (FGs) with adolescents and young women who were current or former IUD users stratified by IUD type and 12-month IUD continuation or discontinuation. All subjects were participants from the Contraceptive CHOICE Project. FG data were supplemented with in-depth interviews (IDIs). Data collection was continued until thematic saturation was reached. Transcripts were independently coded by two researchers, and interrater reliability was calculated using a Kappa coefficient. Analysis followed a standard text-analysis approach.
Results: Thirteen FGs and seven IDIs were conducted with 43 young women. Effectiveness, duration of use, convenience, and potential bleeding changes emerged as themes for both choosing and continuing IUDs. Some women chose the LNG-IUS to achieve amenorrhea, whereas copper IUD users wanted a nonhormonal method and continued menses. Copper IUD users cited expulsion and bleeding irregularities as reasons for discontinuation, whereas LNG-IUS users reported bleeding irregularities and continued pain as reasons for removal. IUD users noted an adjustment period of weeks to months in which side effects were present before lessening.
Conclusions: Effectiveness, duration of use, convenience, and potential changes in bleeding patterns drove adolescents' choice and continuation of an IUD. Bleeding changes and pain contributed to IUD discontinuation. Discussion of effectiveness, duration and convenience, and anticipatory guidance regarding post-insertion side effects may be important in counseling young women about IUDs.

IMPLICATIONS AND CONTRIBUTION

This study provides information about adolescent and young women's contraceptive decision-making around intrauterine devices and their experiences with the intrauterine device that led to continuation or discontinuation. Discussion of potential side effects and time required for many of these side effects to resolve may be important during counseling young women.

Conflicts of Interest: J.P. serves on advisory boards for TEVA, Merck, Activis, and MicroChips. He receives research funding from Merck, Teva, and Bayer. T.M. serves on an advisory board for Bayer Healthcare Pharmaceuticals.
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* Address correspondence to: Elizabeth O. Schmidt, M.D., M.S.C.I., Department of Obstetrics and Gynecology, North Shore Long Island Jewish Hospital, Hofstra School of Medicine, 300 Community Drive, 4-Levitt, Manhasset, NY 11030.
E-mail address: eschmidt@nshs.edu (E.O. Schmidt).

The United States has one of the highest adolescent birth rates in the developed world [1]. Of the 6.6 million pregnancies that occur in the United States each year, half are unplanned and approximately 40% of those will end in abortion [2,3]. Adolescents are at particularly high risk for unintended pregnancy—82% of pregnancies in women aged 15–19 years are unplanned [4]. The two most commonly used forms of contraception in this age group, oral contraceptive pills and condoms,

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have failure rates of 9%–18% and are often used inconsistently. Prior studies have demonstrated that adolescents have higher contraceptive continuation and lower pregnancy rates with methods that do not require daily maintenance or regular use at the time of intercourse [5]. These characteristics of long-acting reversible contraception (LARC), which includes the intrauterine device (IUD) and the implant, make these ideal methods for many adolescents.

Currently, 7.7% of contracepting women use an IUD [6]. In 2009, only 4.5% of 15–19 year olds were using LARC; the majority were IUDs [6]. The American College of Obstetricians and Gynecologists, the Centers for Disease Control and Prevention, and the American Academy of Pediatrics recommend that LARC should be offered as a first-line contraceptive method to all women and adolescents [7–10]. Despite this endorsement, physician concerns of pelvic inflammatory disease, infertility, and safety of the devices have limited IUD use in adolescents [11]. Additionally, younger women may be less aware of LARC as potential contraceptive methods. Health care providers who are uncertain about suitability of LARC may not educate patients about the methods and then perceive low uptake as disinterest [12,13]. Prior qualitative work suggests that patient education by clinicians can increase use of certain contraceptive methods [14,15].

With <5% adolescents currently using an IUD, there is limited information on adolescent and young women's contraceptive decision-making and their experiences with IUDs. Prior qualitative research has examined young women's knowledge and attitudes regarding LARC, but these studies have not included adolescents who were current IUD users or have centered around the time of pregnancy [12,14,16–18]. A qualitative analysis of women before abortion found that issues of cost, method awareness, and side effects impact contraceptive method choice [12]. Another qualitative analysis with postpartum adolescents found that older eligibility requirements, long wait times, and fear of side effects were obstacles to obtaining IUDs [14]. In a cross-sectional survey of teenagers, participants were similarly concerned about side effects, including irregular bleeding and insertion pain [16].

The purpose of this qualitative study was to explore why adolescents enrolled in the Contraceptive CHOICE Project chose an IUD and to explore the experiences of adolescents and young women that continue and discontinue this highly effective contraceptive method.

Methods

Participants

We conducted a qualitative study utilizing focus groups (FGs) and in-depth interviews (IDIs) with young women enrolled in the Contraceptive CHOICE Project (CHOICE) who chose an IUD as an adolescent. CHOICE was a prospective cohort study in St. Louis, Missouri of 9,256 women designed to (1) promote the use of LARC; (2) remove financial barriers to contraception; (3) evaluate continuation and satisfaction for reversible methods; and (4) reduce unintended pregnancies in the region [19].

Potential participants were identified through the CHOICE database, contacted by telephone, and screened for eligibility. Participants were eligible if they were current or former IUD users, had an IUD placed between the age of 14 and 19 years, English-speaking, currently living in the St. Louis area, and willing and able to give informed consent. Our potential population of CHOICE participants is somewhat unique in that most adolescents joined the project with parental consent, and a large proportion of these young women had a previous pregnancy. Eligible participants were offered one-time participation in a FG or IDI.

Procedures

There were 467 CHOICE participants who had an IUD placed between the age of 14 and 19 years and were potentially eligible for participation. We planned to only contact the number of participants necessary to recruit an adequate sample for the FGs. We followed a standard algorithm for participant recruitment. We first called potential participants on their listed home or cellular telephone number (if available) provided by the participant to the CHOICE Project and screened the participant by telephone. If the participant did not answer, we left a voicemail message. If no return telephone call was received within two days, we called the number again. If there was no response, we then called the provided alternate numbers (family members, friends, or partners). An e-mail was also sent if an initial response was not obtained and if an e-mail address was available. If, after three telephone calls, no contact was made, we used our electronic medical record program to look for updated telephone numbers.

All FGs were held at our university clinical research site where most CHOICE participants enrolled in the parent study. After providing informed consent, participants completed a brief demographic survey. All FGs and IDIs were recorded using a digital audio recorder and professionally transcribed.

We developed a semistructured interview guide for the FGs. Topics included the factors influencing choice of IUD (e.g., "Why did you choose an IUD?"), experience with the IUD (e.g., "Did you experience any side effects, if so what were they?"), factors influencing continuation or discontinuation (e.g., "If you continued your IUD, why?" "If you discontinued, why?"), and how their experience could have been improved (e.g. "What did you wish you knew prior to getting the IUD?").

In qualitative research, a sample size is not determined beforehand. Rather, sampling is continued until no new themes are elicited. This is referred to as "thematic saturation." [20] We estimated that thematic saturation would be reached with a total of 60 participants. We planned to stratify by IUD type, including 30 copper IUD users and 30 LNG-IUS users. The copper IUD and LNG-IUS groups were further stratified by continuation status; 15 adolescents who used the copper IUD or LNG-IUS for at least 12 months and 15 who had discontinued the copper IUD or LNG-IUS before 12 months. Thus, we planned to recruit a total of 60 focus group participants. If too few participants arrived to a FG or if we were unable to recruit an adequate number of participants, the FGs were supplemented with IDIs. We followed the same semistructured interview guide for IDIs. We planned to end data collection when thematic saturation was reached.

Transportation costs were reimbursed in the form of a travel voucher if participants utilized public transportation. Participants received a gift card in appreciation for their time.

Data analysis

We conducted our analysis of the transcripts concomitantly with data collection to identify emerging themes. These themes were then explored in subsequent FGs. Analysis of the data