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Fear of intrauterine contraception among adolescents in New York City

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Abstract

Objective—The intrauterine contraceptive device (IUD) is one of the most effective contraceptive methods but it remains under-utilized, especially among adolescents. Little is known about how adolescents perceive IUDs. The objective of this study is to explore urban, minority female adolescents' attitudes and beliefs about IUDs and to identify barriers to IUD use.

Study Design—Qualitative semi-structured interviews were conducted with twenty-one adolescents aged 14 to 21 years who had heard about the IUD but never used one personally. Participants were recruited from two urban school-based health clinics and one community health center. Individual interviews were audio-taped and transcribed. Themes were identified by two independent researchers through line-by-line analysis of interview transcripts.

Results—Fear of the IUD predominated. Respondents related fears about pain, expulsion, foreign body, and the potential for physical harm. Common themes in support of the IUD included the IUD's superior efficacy compared to other contraceptive methods and the ability to use this method long term. Despite identifying IUD benefits, most respondents did not appear to think the method would be well-suited for them.

Conclusion—Though the IUD is safe and effective for adolescents, we found that urban female adolescents have many device related concerns which must be addressed to make this method more acceptable.

Implications—Understanding urban, minority adolescents' perspective on IUDs and their specific concerns about IUD method use can help clinicians provide targeted and relevant contraceptive counseling.

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Keywords

IUD; LARC; attitudes; beliefs; qualitative; teen

1. Introduction

Teen pregnancy, while on the decline, continues to pose a significant public health challenge in the U.S., and socioeconomic, racial and ethnic disparities persist [1,2]. The intrauterine device (IUD) is a long-acting, reversible method of contraception that has been available in the U.S. since the mid-1960s but has not yet gained popularity among adolescents [3]. Only 3.6% of contraceptive females age 15-19 report using the IUD [4]. Recent studies have demonstrated that the IUD is not only safe but also more effective at preventing adolescent pregnancy than the contraceptive pill, patch and ring [5].

Few studies have examined knowledge and attitudes about the IUD among adolescents. Those in the literature have consistently found that less than half of adolescents in the U.S. have ever heard about the IUD [6-8]. These studies have mainly enrolled participants in settings that specialize in family planning and gynecology [9]. Little is known, however, about how female adolescents with some basic knowledge of the IUD perceive this contraceptive option.

The objectives of this study are to explore the attitudes, knowledge and beliefs of urban female adolescents toward IUDs and to identify barriers to IUD use. Since little is known about this topic, we used a qualitative approach to gain a better understanding of adolescents' perceptions about the IUD.

2. Methods

2.1 Study sites and participants

Adolescents were recruited from the waiting rooms of one Bronx federally qualified community health center and two school based-health centers (SBHCs) located in Bronx public high schools, which together served approximately 6700 students [10]. The SBHCs offer a range of primary care services, including reproductive health services. At the time of study recruitment, the majority of students at both high schools (94% at one location and 67% at the other) were enrolled in their SBHC and neither SBHC placed IUDs or subdermal implants. Students who desired an IUD or subdermal implant were referred to another site. Demographically, the Bronx is 55% Latino/ Hispanic and 43% Black/African-American; 40% of the population has not graduated from high school and 28% of families lives below poverty level [11]. The Bronx has the highest rate of teen pregnancy of any NYC borough [12].

Eligibility criteria for our study included: (1) female sex, (2) Spanish or English speaking, (3) age 14-21 years, and (4) knowledge, but not prior use, of an IUD. Goal recruitment was a total of 20 adolescents, a number selected for a high likelihood of achieving theme saturation. The study protocol was approved by the Montefiore Medical Center institutional review board.

2.2 Interview Guide

The interview guide was developed in accordance with the theory of planned behavior (TPB), modeled off of a previously used interview guide with a similar aim [13]. TPB postulates that personal attitudes, perceived social norms, and perceived behavioral control come together to influence actual behavior [14]. Examples of interview questions are included in Table 1.

2.3 Data collection

Study researcher (JP) approached all adolescents in the clinic waiting room during recruitment periods. Adolescents were introduced to the project and, if they agreed to participate, taken to a private space to determine eligibility. Eligible teens were invited to participate in a semi-structured, one-on-one interview that lasted an average of 16 minutes (range: 12 to 22 minutes). Oral consent was obtained and no personal identifying information was collected. No compensation was provided. All interviews were conducted by JP. At the conclusion of the interview, baseline demographic data were collected. Audio-taped interviews were transcribed verbatim by a professional transcription service (GMR transcription).

2.4 Data analysis

An initial codebook was generated from the interview guide, with codes decided upon a priori. Formal coding of transcript text was performed independently by two study researchers (JP and PS). Initial codes were then collapsed and additional themes identified based on material that emerged from the interviews. Text was fully recoded to reflect all identified themes. Coded transcripts were reviewed by both authors to determine agreement and to discuss differences of opinion. Persistent discrepancies in coding and in determination of themes were settled by a third researcher (SER).

3. Results

In May 2011, 39 female adolescents were approached for the study, 35 agreed to take part in the screening, and 21 were eligible and therefore enrolled. The sole reason for ineligibility of the additional 14 potential participants was never having heard about the IUD. Participants ranged in age from 14-19; mean age was 16.4. Fourteen percent of the participants self-identified as Black, 76% as Latina, 5% as both Black and Latina, and 5% as other. Teens enrolled in this study reported first hearing about the IUD from a variety of sources, only a minority of which were from a clinical setting: five from health care providers, five from the media (TV shows and advertisements), eight from friends and family members, and three from health educators/health class.

In terms of accessing the IUD, the majority of respondents (12) said that they would go the school-based health clinic to obtain an IUD; a few noted that they would ask their outside pediatrician or request a referral to go elsewhere. Of those who felt that there would be challenges to obtaining an IUD, four were scared of their parents finding out and four believed that the need for parental consent/age restriction for obtaining an IUD would pose a

problem. Other obstacles to obtaining an IUD cited by respondents included potential insurance issues and not knowing where to obtain an IUD.

3.1 Negative attitudes

The overwhelming attitude expressed about the IUD was pervasive fear (18/21 participants). While some expressed a generalized fear, most identified a fear pertaining to one of the following categories: pain, expulsion, foreign body, and potential for harm.

3.1.1 Fear of pain—Fear about pain was generally related to the insertion or removal process, but also included concern about the device itself causing pain, especially with activity.

3.1.2 Fear of expulsion—Participants expressed fear about IUD expulsion, both in general and at specific times, such as during intercourse or in the shower. The main concern with regard to expulsion was that the user would then be at risk for pregnancy.

“I know they say that it can't come out or anything.... I don't know, I find that weird. I just have a feeling it will fall out or something and then something will happen, pregnancy or something.” (Respondent 22)

3.1.3 Fear of a foreign body—Many participants were also uncomfortable with the idea of a foreign body being used as contraception. Some participants specifically commented that, while they did not believe that the device would be uncomfortable, the knowledge that it was inside of them would be unsettling.

“It would probably feel weird... I don't think it feels weird physically, I think that it's weird emotionally because you know it's down there, so you're just like, ‘Oh my God.’” (Respondent 3)

3.1.4 Fear of physical harm—Physical harm due to the IUD's insertion and internal placement was another cause for concern. Specifically, participants feared that the IUD would become stuck inside their body or cause infertility. The infertility concerns did not appear to be linked to concerns about infection.

“What happens if I take it and it messes up my ovaries and I can never get pregnant? Or like, my body goes through early menopause if I took it? You know what I'm saying? People think about those things.” (Respondent 6)

3.1.5 Lack of control—In addition to fear, many participants expressed the attitude that a lack of control over the IUD insertion/removal process would discourage them from using this method.

3.2 Positive Attitudes

Participants identified a number of benefits to IUD use, especially its high efficacy. About half of participants mentioned the close to 100% efficacy of the IUD as being a significant benefit. A third of participants felt that the IUD's length of use was another major benefit,

allowing one to plan for her future. Similarly, about a third of participants felt that the lack of user-dependency after the IUD is inserted was a positive quality.

Other benefits identified by a few respondents included the ability to use an IUD confidentially and the ability to have sex without using a condom. One participant, who described not using condoms as “a breath of fresh air,” noted that this would only be the case “if you're having sex with someone that doesn't, like, have a disease.” (Respondent 19)

3.3 Beliefs about appropriate IUD Candidates

There was great heterogeneity in participants' perceptions of a good IUD candidate. Participants were divided in their perception of an appropriate candidate's age, with about half reporting that the user should be “younger” and half reporting that they should be “older.”

“I think once you are 16 or 17, you should start taking the IUD because of the fact that... sex is spontaneous so you never really know when it's really gonna happen... You don't really plan to have sex until you're like 30 or 40-something, like, ‘Honey, I'm gonna light some candles today.’ You want to have a good time but having a good time can lead to problems, so that's the best time to take the IUD.” (Respondent 6)

Those who favored an older IUD user reasoned that it is important to be engaged in routine healthcare and to be well educated about side effects of the IUD before having one inserted.

“A person older than 20 years who know her body and has a better understanding of the ‘T’ [would make a better candidate]. Younger women don't know. They only use it so that they can have sex with anyone.” (Respondent 13)

Similarly, participants were divided on what types of intimate partner relationships best lend themselves to IUD use, with some reporting that those in stable relationships would make an appropriate candidate and others reporting that a young woman having intercourse with many partners would make a better candidate.

3.4 Beliefs about IUD access and acceptability

Teen participants did not identify any potential barriers to accessing an IUD and universally reported that they would go to a doctor known to them if they wished to obtain an IUD. Participants overwhelmingly identified the school-based clinic as the clinic they would select to access an IUD (16/21), with a handful reporting that they would go to their primary care doctor or another clinic. About half of respondents felt that their friends would view IUD use positively.

4. Discussion

Adolescents interviewed for this study, who had heard about but never used an IUD, expressed an almost universal fear of the IUD's internal placement. Participants gave several explanations for why they feared the IUD, some specific (e.g. concern about pain and side effects) and some emotional (e.g. distaste for the idea of a foreign body). The main message communicated was that that fear would be a major barrier to seeking an IUD.

Fear about the IUD has been noted among adult women [15] and is likely tied, in part, to a poor understanding of female anatomy. Concerns over damage caused by the IUD reveal that participants do not well understand the physical relationship between the vagina, urethra, uterus, ovaries, and abdominal cavity/other abdominal organs. Some concerns that teens describe, such as pain with intercourse or urination, could perhaps be allayed with an improved understanding of anatomy. Differentiating the vagina from the uterus is a place to start; teaching teen girls about their bodies at the onset of puberty may serve to improve misunderstanding. Adolescents, who are still forming opinions, are potentially more open than adult women to modifying their attitudes.

We also identified the belief that the IUD would be a better birth control option for “someone else.” Although the interviewer did not explicitly ask the participants whether they would want an IUD themselves or ask about respondents' personal sexual behaviors, answers to questions about who would make the best IUD candidate often used language consistent with differentiating the ideal candidate from themselves. Participants also suggested that an appropriate IUD user would have carried a pregnancy before and would not be a consistent condom user. This belief is perhaps due to the fact that the IUD is still perceived as a “second line” method, appropriate only for women once another contraceptive option has failed. Contraception providers have been noted to display similar misperceptions about IUD users [16,17].

Participants commented that lack of control over the IUD insertion and removal would be a barrier to selecting an IUD, though this theme surfaced less often than fear. Other qualitative studies have corroborated this concern among young women; Foster et al showed that young women would be more open to selecting an IUD if there were an option for self-removal [18].

This study also uncovered themes that suggest lack of barriers to IUD use. Interestingly, teens did not express concern about increased risk of sexually transmitted infections with IUD use. This stands in contrast to concerns about infection expressed among providers and among adult women [19,20]. This discrepancy is likely due the young age of the adolescent women, as literature debunking the myth that the IUD increases risk of infection has been available for the last decade [21,22]. In addition, concerns about cost and access to an IUD provider were not expressed by teens, who displayed confidence at their ability to obtain an IUD.

Our study has several limitations. Because we recruited a subset of urban teens who had previously heard about the IUD, the study population does not reflect all female adolescents. However, this inclusion criterion was necessary in order to allow us to specifically address IUD perceptions among informed adolescents. Additionally, adolescents who seek care at a SBHC likely differ from adolescents who either do not have access to or choose not to attend a SBHC. For example, adolescents seeking care at a SBHC at the time of enrollment may be more likely than other adolescents to believe that they have access to the IUD at their SBHC. Additionally, the population studied represents urban, minority teens and may not be reflective of adolescents from other backgrounds.

5. Conclusion

While adolescents interviewed for this study appear to recognize the benefits of using an IUD, our findings suggest that fear hinders them from considering the IUD as an acceptable contraceptive option. These fears may be allayed with improved IUD education and counseling as well as education about female anatomy. We also identified common misperceptions with regard to appropriate IUD candidates (e.g. age, parity) that must be addressed in order for the IUD to become an acceptable birth control method for the mainstream adolescent population. By understanding how teens perceive IUDs, clinicians can provide more informed contraceptive counseling about this under-utilized, highly effective method. This study suggests that providers need to do a better job at explaining the IUD in easily understood terms in order for it to be perceived by adolescents as a viable option for contraception.

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Table 1
Sample interview questions

Specific questions about the IUD
What have you heard about the IUD?
What do you think are some good things about using an IUD?
What worries might you have about using an IUD?
Can you describe the kind of person who might use an IUD? How are you like that person? How are you not like that type of person?
What do your girlfriends think about IUDs?
If you decided that you wanted to use an IUD, where would you go get it?
If you wanted an IUD, what might make it hard for you to get it?