

Counseling About IUDs: A Mixed-Methods Analysis

CONTEXT: IUDs are infrequently used in the United States. Assessing how counseling about this method is delivered can help identify barriers to IUD use that might be overcome by improving services.

METHODS: A sample of 342 family planning visits at six clinics in the San Francisco Bay Area in 2009–2012 were audio-recorded, and patients completed surveys both before and after their visits. Descriptive quantitative analyses of counseling were performed, and correlates of IUDs' being mentioned during counseling were investigated using logistic regression. Qualitative analyses investigated the counseling women received about IUDs generally (in a subset of 42 visits), as well as counseling for women who already had an IUD in place (13 visits) or who felt their provider inappropriately expressed a preference for IUDs (five visits).

RESULTS: IUDs were mentioned in 75% of visits. Patient-initiated mention of IUDs was more likely in visits by women aged 35 or older than in those by women younger than 20 (odds ratio, 6.4); provider-initiated discussion of this method was less common if the provider was older than 55 than if he or she was younger than 46 (0.3). Providers more often discussed potential adverse effects of IUD use than benefits; counseling often was noninteractive and did not address how patient preferences related to characteristics of IUDs. Counseling was frequently fragmented by the need for return visits or referral elsewhere for insertion.

CONCLUSIONS: IUD counseling may be improved by enhancing comprehensiveness and patient-centeredness, and by decreasing fragmentation of care.

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Women in the United States have an unmet need for effective contraception. Some 6.7 million pregnancies occur annually, half of which are unintended.¹ Unplanned pregnancies are associated with adverse social and health outcomes for both women and children,² and therefore constitute a public health issue with widespread implications. Increased use of any contraceptive method presumably would have a positive impact. In addition, given that half of unintended pregnancies occur among the 89% of women aged 15–44 who are using contraceptives,³ broader use of highly effective methods could have a significant effect.

Given the efficacy and safety profile of IUDs,⁴ it is not surprising that they are the most commonly used reversible form of contraception worldwide.⁵ In the United States, however, IUD use, while increasing, has remained relatively low; the most recent results from the National Survey of Family Growth indicate that 8% of women are currently using this method.⁶ Women's selection of a new contraceptive method is influenced by provider counseling,^{7,8} so family planning providers may be contributing to the underuse of IUDs in the United States. Misinformation among providers may be one factor. National surveys of both physicians and nurse practitioners have found that many providers incorrectly believe that use of IUDs is associated with infertility and pelvic

inflammatory disease;^{9,10} one study identifies older age as a correlate of these incorrect beliefs.¹¹ These misconceptions may affect the frequency and content of counseling about IUDs,^{9,10} and may thereby influence women's willingness to use them. Furthermore, for patients who elect to use an IUD, counseling may influence satisfaction with and continuation of the method. Anticipatory counseling regarding potential side effects has been linked to increased continuation of contraceptive methods overall,¹² and with satisfaction with the levonorgestrel IUD specifically.¹³

An additional factor of interest is that the IUD is by necessity inserted by a health care provider and in most cases requires a health care provider for removal. This provider-controlled aspect of the method, combined with the historical context of disadvantaged women's having been coerced to use highly effective, provider-controlled methods¹⁴ and the finding that women are more likely to discontinue methods that they felt pressured to use,¹⁵ adds complexity to the counseling interaction about this highly effective method.

Little is known about IUD counseling as it actually occurs in the United States—for example, about how discussion of the method is initiated or how providers balance discussion of its benefits with patient autonomy in method selection. Information about this counseling can inform

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future interventions designed to ensure that care related to the IUD enables women to determine if this method is best for them and, if they select it, to use it successfully. The mixed-methods study described here used audio recordings of family planning visits, along with patient surveys, to investigate who is counseled about IUDs and what is included in the counseling session.

METHODS

Sample and Setting

This analysis uses data from the Patient-Provider Communication About Contraception study, a longitudinal study of women receiving contraceptive counseling at six clinics in the San Francisco Bay Area between August 2009 and January 2012. Family planning, primary care and general gynecology clinics were eligible for inclusion if they had a diverse patient population and offered contraceptive counseling conducted by nurse practitioners, physician assistants, certified nurse-midwives or physicians (either medical or osteopathic doctors). We excluded clinics that use peer counselors, on the assumption that patients' interactions with peer counselors may be different from those with licensed health professionals. All patients had coverage, through either publicly funded programs or private insurance, for all contraceptive methods. Women were recruited for participation immediately prior to their clinic visit if they wished to discuss changing or initiating a contraceptive method during their visit. Additional inclusion criteria were that patients speak English; be neither pregnant nor seeking pregnancy; and identify themselves as black, white or Latina. The last criterion was designed to allow the parent study to test for racial and ethnic disparities in counseling. Patients were allowed to participate in the study only once. Participation rates were not formally tracked, as in many cases it was not possible to assess eligibility before potential participants indicated that they did not wish to hear more about the study. All patients and providers completed informed consent.

Data Collection

Patients completed a survey immediately prior to their visit and another one immediately after their visit; the visit itself was audio-recorded. The previsit survey consisted of closed-ended questions about patients' demographic characteristics and contraceptive preferences. The post-visit survey comprised closed-ended questions regarding which contraceptive method women had chosen and their satisfaction with counseling, including the degree to which their provider had expressed a preference for which method they should use and whether they felt the expression of this preference was appropriate. Providers were instructed to provide usual care and did not have access to patients' responses to the previsit survey. At the completion of the study, providers completed a survey regarding their demographic characteristics.

The audio recordings of the visits were coded using a content checklist, for which trained coders used both

transcripts and the original recordings to track aspects of counseling that were included in the visit. Checklist items included which methods were mentioned, who initiated discussion of each and what side effects were mentioned for each. In addition, specific questions focused on counseling about IUDs, including whether the process of insertion or removal was discussed and whether the provider indicated that there is a risk of infection at or after IUD insertion. Counseling about side effects specific to the two types of IUDs (levonorgestrel and copper) was also documented. Intercoder reliability was assured before each individual conducted independent coding. Any ambiguities in coding were resolved in group meetings with the principal investigator.

Analysis

Quantitative analysis used data from the entire sample of 342 visits to determine the frequency with which IUDs were mentioned during counseling visits and the number of visits in which women chose an IUD. We conducted bivariate and multivariate analysis using logistic regression to assess patient- and provider-level correlates of IUDs' being mentioned and of women's choosing an IUD. Our multivariate model initially accounted for clustering by both provider and clinic using mixed-effects analysis, but as we found no significant clustering effects, we report results from logistic regression accounting only for fixed effects. In analyzing correlates of having IUDs mentioned, we first looked at any mention of IUDs. We also performed separate analyses to investigate correlates of having the provider first mention IUDs and having the patient first mention them. We included the following patient variables in the multivariate models on the basis of pre-hoc hypotheses about potential confounders: age, race and ethnicity, parity, history of having had an abortion, previsit preference for an IUD and the highest level of education achieved by a parent or guardian at the time the participant was 13. Provider variables were age, provider type (physician vs. other), and race and ethnicity. Differences at $p < .05$ were considered significant.

We also conducted descriptive analyses of specific aspects of counseling about IUDs derived from the coding checklist: whether providers discussed the efficacy of IUDs and its long-acting nature, women's preferences for method characteristics of relevance to IUDs, side effects and logistics of use.

For our qualitative analysis, we selected a subset of 42 visits in which the IUD was mentioned, using purposive sampling to ensure variety in both whether the patient ultimately chose an IUD (half did) and whether she came in initially with a preference for an IUD (20 did). In addition, we conducted separate analyses on a randomly sampled subset of 13 visits in which women came in with an IUD but desired to change methods, and on all five visits in which women indicated that their provider had too strongly expressed a preference for IUDs.

Coding was completed using NVivo qualitative data analysis software, version 10. Our initial coding structure was based on preexisting areas of interest (e.g., discussion

of side effects and expression of provider preference for IUDs or another method); it was augmented by emergent codes from the data (e.g., codes related to fragmentation of counseling). This structure was discussed and modified in an iterative fashion during group meetings with the principal investigator. After finalization of the coding structure, the principal investigator also coded a subset of the visits to ensure fidelity in coding and agreement with the structure. The study team wrote memos on the basis of these codes, and reviewed and edited them to arrive at the final results. Coding stopped when saturation was reached.

The study and this subanalysis received approval from the University of California, San Francisco, Committee on Human Research.

RESULTS

Overall Mention of IUDs

The patients included in the sample were of diverse races and ethnicities; 46% were white, 29% black and 25% Latina. One-third had had a child. Thirty-seven percent reported that neither of their parents had more than a high school education. Thirty-eight providers participated in the study; on average, they contributed nine visits each (range, 1–16). Visits were well distributed by provider age: Some 37% were with providers younger than 46, while 36% were with providers aged 46–55 and 27% were with providers aged 56 or older. Visits were predominantly with providers who were white (71%) and were nonphysicians (76%). Among patients, 14% reported that in the past year, they had discussed birth control with the same provider they saw for the study visit.

Overall, IUDs were mentioned in 75% of visits (Table 1). Patient age was strongly related to mention of IUDs: The proportion of visits in which the method was mentioned was 59% for women younger than 20 and increased to 89% for those aged 35 or older. Parity and a history of having had an abortion also were correlated with having IUDs mentioned, as was reporting a preference for using an IUD prior to the visit. Among provider-level variables, only age was associated with mention of IUDs; visits with providers older than 55 were significantly less likely to include mention of IUDs than were visits with providers younger than 46 (59% vs. 82%).

IUDs were brought up mainly by the provider: This was the case in 50% of all visits, or 67% of those in which IUDs were mentioned. Differences by patient characteristics in the overall incidence of IUDs' being mentioned resulted from differences in patient-initiated mention of IUDs. The difference in mention by provider age was driven by provider-initiated mention of IUDs.

In multivariate analysis (Table 2), the odds that IUDs were mentioned were lower if providers were older than 55 than if they were younger than 46 (odds ratio, 0.3), were greater if the woman was aged 30 or older than if she was younger than 20 (4.9–5.8), and were elevated if the patient had a preexisting preference for an IUD

TABLE 1. Percentage of clinic visits for family planning services, by selected outcomes related to IUDs during the visit, according to patient and provider characteristics, San Francisco Bay Area, 2009–2012

Characteristic	N	Any mention of IUDs	Patient-initiated mention of IUDs	Provider-initiated mention of IUDs	IUD chosen
Total	342	75	25	50	23
PATIENT					
Age					
<20 (ref)	41	59	10	49	10
20–24	115	69	21	48	23
25–29	88	76*	28*	48	23
30–34	41	88**	29*	59	27
≥35	57	89**	35**	54	33*
Race/ethnicity					
White (ref)	158	73	22	52	25
Black	98	77	32	45	17
Latina	86	77	23	53	27
Parity					
0 (ref)	230	71	19	52	19
≥1	112	84*	37***	47	34**
Past abortions					
0 (ref)	230	72	20	52	22
≥1	112	82*	36**	46	27
% of federal poverty level					
<100 (ref)	145	75	28	47	22
100–200	71	79	28	51	28
≥201	126	73	19	54	22
Parent's education†					
≤high school (ref)	126	75	31	44	22
Some college	87	69	20	48	15
≥college	128	80	22	59*	30
Initial preference for IUD					
Yes (ref)	58	97	57	40	78
No	284	71***	18***	52	12***
PROVIDER					
Age					
<46 (ref)	127	82	24	58	28
46–55	124	80	25	55	27
≥56	91	59***	26	33***	12**
Race/ethnicity					
White (ref)	244	73	25	48	24
Other	82	80	24	55	21
Type					
Nonphysician (ref)	260	73	25	48	21
Physician	82	82	26	56	32*

*p<.05. **p<.01. ***p<.001. †Highest level of education achieved by a patient's parent or guardian when she was 13. Notes: Differences were assessed using bivariate logistic regression. ref=reference group.

(11.8). Parity and abortion history were no longer significant. In the next multivariate model, the likelihood of a patient's initiation of mention of IUDs was elevated if the woman was aged 25–29 (5.4), if she was 35 or older (6.4), or if she had a preexisting preference for an IUD (6.8). Provider age was the only significant variable in the model assessing provider initiation of discussion about IUDs: The odds of this outcome were lower if the provider was older than 55 than if he or she was younger than 46 (0.3).

TABLE 2. Odds ratios from multivariate logistic regression analysis assessing patient and provider characteristics associated with selected outcomes related to IUDs during the clinic visit

Characteristic	Any mention of IUDs	Patient-initiated mention of IUDs	Provider-initiated mention of IUDs	IUD chosen
PATIENT				
Age				
<20 (ref)	1.00	1.00	ns	ns
20–24	1.36	2.81	ns	ns
25–29	2.04	5.36*	ns	ns
30–34	4.89**	4.41	ns	ns
≥35	5.78**	6.37**	ns	ns
Parity				
0	ns	ns	ns	1.00
≥1	ns	ns	ns	2.71*
Initial preference for IUD				
No (ref)	1.00	1.00	ns	1.00
Yes	11.80***	6.75***	ns	39.17**
PROVIDER				
Age				
<46 (ref)	1.00	ns	1.00	1.00
46–55	0.86	ns	0.81	1.26
≥56	0.27***	ns	0.31***	0.25*

*p<.05. **p<.01. ***p<.001. Notes: Table shows only characteristics with significant results. Models included characteristics shown above plus patient’s race and ethnicity; patient’s history of abortion; highest level of education achieved by a patient’s parent or guardian when she was 13; and provider’s type (physician or other) and race or ethnicity. ref=reference group. ns=not significant.

Choosing an IUD

Patients chose an IUD in 23% of visits; 40% of these women selected the copper IUD, and the remaining 60% the levonorgestrel device. Patient age, parity and preference for an IUD, as well as provider age and type, were associated with choosing an IUD in bivariate analysis (Table 1). In multivariate analysis (Table 2), three associations remained: The odds that an IUD was chosen were elevated if the woman had ever given birth (odds ratio, 2.7) or had initially preferred an IUD (39.2), and were reduced if the provider was older than 55 (0.3).

•*Process of method selection.* Patients initiated discussion of IUDs in 17 of the 42 visits in our qualitative sample; most commonly (in 14 of these visits), women with a preexisting preference for this method volunteered their desire to use it. In none of these cases did the provider probe to understand the woman’s underlying motivations for wanting an IUD, although in five cases the patient volunteered her motivation. Most frequently (in 11 visits), providers then proceeded to recite information about IUD side effects. In only three cases did they also discuss the method’s benefits, although in two additional cases, providers focused only on benefits. Generally, patients then independently determined whether to use an IUD; providers’ involvement was minimal unless patients explicitly requested their opinions.

In two cases, patients without a preexisting preference for an IUD initiated discussion of this method by mentioning that they had been interested in it in the past, but that

other providers had counseled them that the method was not an option for them for reasons that are not consistent with best practice—for example, the women were parous, or the providers considered them to be at risk of STDs. Providers in our sample allayed these concerns about IUDs and provided additional information about the method, again focusing largely on side effects.

During the 25 visits in which providers initiated the conversation about the IUD, they most commonly (in 18 visits) included it among a list of methods, and they emphasized it in only eight of these visits. In all but two cases in which IUDs were mentioned as part of a list, the provider then moved on to discuss other methods or issues without inquiring about the woman’s reaction to the information provided. In the 11 in which providers gave more than cursory information about IUDs, they were more likely to mention potential negative aspects of the bleeding patterns expected with IUDs (eight visits) than the potential positive aspects of these patterns (five visits). Additionally, the benefit of superior efficacy was mentioned in only two visits, and that of convenience was mentioned in only three. The ultimate decision about which method the women would choose—most commonly not an IUD—was usually made without any further discussion of this method.

In four cases, providers initiated counseling about IUDs specifically in response to patients’ expressed preferences, as in the desire for a long-acting, high-efficacy or low-hormone method. In one such case, the provider responded to a patient’s stated preference for a nonhormonal method by stating, “If you’re leaning towards nonhormonal, then the Paragard IUD would be the best choice for you... [Barrier methods] are not as effective.”

Of note, providers rarely mentioned efficacy of IUDs. In fact, of all visits in which IUDs were mentioned, only 29% included mention of their efficacy. In 63% of visits in which efficacy was mentioned, providers either gave specific numbers describing the method’s overall efficacy or compared its efficacy with that of other methods. For example, one nurse practitioner stated to a 28-year-old patient: “So, it’s not 100%. But 99%. It certainly has a better effectiveness rate than condoms, a little bit better than birth control pills and the patch and the ring.” In the remainder of visits in which efficacy was mentioned, providers used more general terms, describing IUDs as “very effective” or “really, really effective.” The most frequently mentioned characteristic of IUDs was their long-acting nature; this was brought up in most visits in which IUDs were mentioned (65% in the whole sample and 71% in the qualitative sample). However, providers infrequently clarified that it was possible to remove the method at any time; this point was made in only 11 of the 30 visits in the qualitative sample in which length of use was mentioned.

A prominent barrier that patients interested in IUDs encountered during counseling was that care became fragmented because clinics did not provide on-site insertions; this was the case in two clinics and affected 13 women in the qualitative sample. Four of these patients chose

another method, at least in part because of the need to seek these services elsewhere. Seven remained interested in an IUD, and five of these had their provider help them identify another method to use until their IUD placement. In the other two instances, the conversation lost focus, and the patients left without any method and without a clear follow-up plan for placement of an IUD.

Barriers related to fragmentation of care were also observed in clinics that performed the insertions: Twenty-nine out of the 48 women in the overall sample who chose to obtain an IUD were rescheduled for insertion at a later date because of clinic or provider preference, often related to concerns about clinic flow. The effect of the need for return visits (whether to the same clinic or a different one) was also seen during insertion visits, as providers would be unsure of the amount of counseling that women who were referred by another provider had already had. For example, one provider expressed confusion about why a 20-year-old patient who had come for an IUD insertion was asking so many questions about her options: “I assumed you were here for insertion today. You already had the consultation, so I assumed you pretty much considered everything.”

•**Choice of IUD type.** In the qualitative sample of 42 visits, discussion about IUDs, whether initiated by the clinician or by the patient, began with mention of IUDs in general in 69% of cases; in 75% of these cases, discussion of both the levonorgestrel and the copper IUD followed. In helping women interested in IUDs select between the two devices, providers mentioned three main issues: differences in bleeding profile (the primary focus), differences in duration of efficacy and, less commonly, the presence or absence of hormones. Most often, this counseling was provided in a noninteractive manner, with providers making little or no attempt to assist patients in understanding how their preferences related to the information provided. For example, a nurse practitioner, speaking to a 22-year-old patient, said:

“Some women love that, ‘Oh, good, no period, great. I know I’m not pregnant, I’m fine, I got the Mirena in.’ Other people want to see their period every month, and they don’t feel comfortable unless they see it....It just kind of depends on who you are, so there’s no perfect method.”

In the overall study sample, women’s preferences regarding amenorrhea and irregular bleeding were mentioned in only 42% and 29%, respectively, of visits for women who ultimately chose the levonorgestrel IUD. Similarly, preferences regarding heavier menstrual bleeding (a possible effect of using a copper IUD) were mentioned in only 28% of visits for women who chose the copper device.

Counseling Seen as Inappropriate

In the five visits in which women felt pressured to choose an IUD, we noted that either women’s concerns about the method were dismissed or their preferences were challenged. For example, one 35-year-old patient went into her visit stating, “I’m interested in getting [an IUD], but also feel like I need to find out more about the options and the

side effects.” She proceeded to discuss information she had obtained from the Internet about IUDs, including “people’s horror stories...like mood changes and weight gain...[and] the effects of copper itself.” Rather than acknowledge these concerns, the nurse practitioner simply stated, “Well, we put them in all the time, and I’ll just try to reassure you that they are very safe.” While the provider went on to address some of the specific concerns mentioned by the patient, she did so in a noninteractive and dismissive manner that did not recognize the power of the personal narratives the patient had accessed through the Internet.

During another visit, a 19-year-old patient who had been having unprotected sex with her boyfriend expressed an interest in injectable contraception. In response, the nurse practitioner listed negative side effects of that method before emphasizing IUDs: “The only problem with Depo is it will give you a lot of irregular bleeding initially, and it does cause weight gain....But another option are some longer term methods, like an IUD.”

IUD Users with Concerns

When women who already had an IUD reported a difficulty with the method, such as bleeding or cramping, providers focused on finding the cause of the difficulty and deciding how to address it, while frequently failing to explore the extent to which it bothered patients or inquiring about women’s underlying concerns. In many cases, providers minimized symptoms by telling women that the amount of bleeding they were experiencing was not that great or that their symptoms were not typical. In about one-half of these visits, providers emphasized the value of continuing to use the method for a longer period of time, often linking this counseling with statements of support for IUDs. For example, when one woman complained of bleeding and cramping, her physician provider performed an ultrasound; upon finding a follicular cyst, the provider told the 27-year-old patient:

“So, your IUD looks to me like it’s in a good position. We have a little innocuous explanation for your discomfort. If you’re otherwise happy with your IUD, I would stay the course. And just give it another couple months....I think it’s a great choice for you.”

Despite this emphasis on “powering through”—as one provider phrased it—the majority of providers who offered this type of counseling combined it with explicit statements that they would remove the IUD if that was, in fact, what the patient wanted.

Other providers expressed a preference for IUDs in other ways. For example, one did not offer the option of removal, but only of string trimming, to a patient with concerns about bleeding and her partner’s feeling the string, and two encouraged patients to switch from one type of IUD to another.

On the other end of the spectrum, a few providers removed the IUD or scheduled a removal at a later date with no resistance. Like visits in which the provider had a preference for the woman’s continuing IUD use, these visits

did not include exploration of the patient's concerns or the degree to which IUD removal was likely to address them.

Visits in Which Women Chose IUDs

IUDs were chosen in 80 visits. Thirteen of these involved women who already had an IUD, went to the clinic desiring discussion of other methods, but after counseling elected to continue with their IUD. We excluded those visits from our analyses of the specific counseling that was received by women who chose an IUD, as the counseling in those visits was likely different from that in visits by women who did not have an IUD. In 28% of the 67 included visits, women had their IUD inserted during the audio-recorded visits.

•**Logistics of IUD use.** The process of IUD insertion was mentioned in 61% of visits, while removal was discussed in 21% (Table 3). Important aspects of the insertion process, including risk of perforation, pain or infection, were mentioned in fewer than half of visits. Removal of an IUD came up most often in the context of reassuring patients that the device could be removed before the five- or 10-year limit. In qualitative analysis, we identified no instances of the provider's discussing the possibility that the woman herself could remove the IUD.

•**Adverse effects and benefits.** Women who chose to use an IUD were more often counseled about its potential adverse effects than about its benefits. Among visits by women choosing the levonorgestrel device, 63% included mention of irregular bleeding, and 80% included discussion of the possibility of amenorrhea (which is perceived negatively by some women), but only 13% included mention of decreased cramping. Further, of the 32 discussions about amenorrhea, only two included reassurances to

patients about the safety of not having menses (not shown). A similar pattern was seen with patients who chose the copper IUD: More than half of visits included mention of heavier bleeding or cramping with this method, and none mentioned regular periods with it, which some women perceive as a benefit.

In 38% of visits in which the levonorgestrel IUD was chosen, providers told patients of the possibility of hormonal side effects, such as acne and weight gain. Our qualitative analysis revealed that this counseling often provided some reassurance to patients by emphasizing the device's low hormone level. In 15% of cases, providers addressed the question of hormonal side effects by providing reassurance that these would not occur with this method (not shown). A physician told a 30-year-old woman:

“That amount of hormone is not usually enough to give anybody systemic side effects. So some of the patients I've noticed who've had mood problems or skin problems or weight gain with other hormonal contraception, like the pill or the patch or the ring, do not have those side effects with that tiny amount of progesterone.”

Similarly, a nurse practitioner explained to a 36-year-old patient that with the hormonal IUD, “the medicine doesn't go through your whole body.... So it won't affect your mood and all that kind of stuff.”

DISCUSSION

Through analysis of audio recordings of contraceptive counseling visits, our results highlight potential areas for improvement in counseling about IUDs, with the ultimate goal of ensuring that women receive the information and support they need to determine whether this method is appropriate for them. Specifically, our findings of substantial variation in the proportion of visits in which IUDs were mentioned by patient and provider characteristics, of an emphasis on negative characteristics of IUDs over benefits, of a failure of providers to consistently counsel women on logistics of method use (including potential adverse effects and the process of insertion) and of the fragmentation of this counseling suggest opportunities for interventions. In addition, our findings offer insight into how providers approached the balance between ensuring patient autonomy and encouraging use of this highly effective method.

The finding that women seeing younger providers had an increased likelihood of having IUDs mentioned, as well as choosing this method, is consistent with data from other studies showing that older providers have less evidence-based knowledge about IUDs¹¹ and are less likely to report counseling about⁹ or recommending this method.¹⁶ Our data provide evidence from real-world practice that women's use of IUDs may be affected by these differences. Increased attempts to reach older providers through continuing education efforts may overcome this barrier to IUD use; limited data suggest that provider-focused training has an effect on IUD uptake.^{17,18}

Our finding of differences in patient-initiated mention of IUDs by patient age suggests that older patients may

TABLE 3. Percentage of visits in which patients chose an IUD, by IUD-related topics covered in the visit

Topic	%
IUDs in general	(N=67)
Process of insertion	61
Process of removal	21
Possibility of string checks	52
Necessity of string checks	34
Expulsion	21
Perforation	45
Pain with insertion	49
Infection with insertion	30
Infection after insertion	9
String problems	4
Future fertility	21
Return to fertility within one month	16
Return to fertility after one month	4
Possible future infertility	0
Levonorgestrel IUD	(N=40)
Spotting/irregular bleeding	63
Amenorrhea	80
Hormonal side effects	38
Decreased cramping	13
Increased cramps	0
Copper IUD	(N=27)
Heavier bleeding	70
Increasing cramping	59
Continued regular periods	0

be more informed about or motivated to use this method than younger ones. Possible causes for this are that older women have had more exposure to the health care system and that younger women have been discouraged from using this method by past providers. If this is the case, it would suggest that providers may need to be proactive to ensure that young women are aware of this method and can make an informed decision about its use. In addition, nonclinical interventions, such as ones using social media, may be necessary to ensure that these women are aware prior to their visit that the IUD is available and appropriate for them.

We found that providers tended to not offer information about benefits of this method, including its high efficacy and its convenience. Yet women may need this information to make an informed decision: In one study, effectiveness and ease of use were among the method characteristics that women considered the most important.¹⁹ While the potential for long-term use of this method was mentioned more frequently than other characteristics, some women may not perceive this as a benefit, especially given the lack of information about removal prior to the end of the period of efficacy. In addition, providers were more likely to mention the potential adverse effects of IUDs than the benefits. This negative framing could be expected to influence women's likelihood of choosing IUDs and their comfort with the method if they did choose it.

It is also noteworthy that a sizable minority of women choosing IUDs were not informed about potential changes in their bleeding patterns. Given evidence that anticipatory guidance about side effects increases continuation of and satisfaction with contraceptive methods,^{12,13} increasing the frequency of this counseling for women considering IUD use would likely have a positive impact. Providers also generally did not explicitly address women's preferences regarding menstrual bleeding, and therefore did not provide women with support to help them determine how their preferences related to likely side effects associated with IUDs. Similarly, infrequent counseling about the process of insertion and, even less frequently, the process of removal may interfere with women's comfort with IUDs, especially given data suggesting that concern about placement of the devices and the desire for control over removal are factors in women's opinions about them.²⁰

One aspect of care that may have contributed to inadequate counseling in our sample is the need to reschedule or refer patients for IUD placements. This resulted in fragmentation of counseling. It also created a barrier to use, as some women who wished to use an IUD chose a different method because of the associated inconvenience or simply left without a plan for follow-up at a clinic where they could get an IUD. These issues could be ameliorated through increased provision of same-day IUD insertions, as well as improved communication between referring and inserting providers.

An additional area of interest, given the history of some women's being coerced to use particular contraceptive

methods,¹⁴ is how providers approached the balance between patient autonomy and encouragement when counseling about IUDs. Overall, providers allowed women complete independence in assessing the method's appropriateness for them. Given previous findings that women desire decision support from their providers when choosing a contraceptive method,²¹ this suggests that, if anything, providers in our sample could have been more proactive in informing women about and helping them to assess IUDs. However, in some cases, such as when a woman came in with concerns about her existing IUD or in visits in which women were counseled about IUDs in a way they felt was inappropriate, providers dismissed women's concerns or preferences without exploring their causes. This highlights that if providers do take a more proactive approach to emphasizing the benefits of IUDs, they need to identify and explore patients' preferences and give explicit attention to women's concerns and questions about the method.

Limitations

The geographically small area from which visits were sampled may limit the generalizability of our findings. Additionally, some visits may have been return visits to the same provider, in which case earlier counseling would not have been evident in our data. However, this is unlikely to have a large effect on our results, given the small proportion of patients who reported that they had seen this same provider to discuss birth control in the past year. We also note the possibility of a Hawthorne effect; that is, providers may have altered their behavior in response to being audio-recorded. However, on the basis of conversations with participating providers, who frequently reported having completely forgotten about the audio-recording device, we consider this unlikely to have affected our results substantially.

Conclusion

Our findings suggest that counseling about IUDs could be improved through increased use of a patient-centered approach that provides comprehensive information to women about the benefits and potential adverse effects of IUD use while actively exploring how their preferences relate to these method characteristics. Interventions designed to address the tendency of older providers to not provide this counseling, and younger women not to initiate discussion of IUDs, might also help ensure that all women have access to information about this method. Finally, increased availability of IUD insertions at sites providing family planning care could improve counseling by decreasing fragmentation of care.

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