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Patients' Experiences with an Immediate Postpartum Long-Acting Reversible Contraception Program

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Abstract

Objectives: We compared the characteristics of postpartum women who recalled being offered or not offered intrauterine devices (IUDs) and implants and who obtained placement of these long-acting reversible contraceptive (LARC) devices at a county hospital before discharge. We assessed satisfaction and continuation among those who obtained LARC methods.

Methods: We interviewed 199 patients who delivered at a Texas hospital and tested for differences in who recalled being offered/not offered immediate postpartum LARC. We provide descriptive statistics on when offered and satisfaction, and assess continuation using Kaplan-Meier survival curves.

Results: There were 103/199 (51.8%) women who recalled providers offering them immediate postpartum LARC; English-speaking relative to Spanish-speaking Hispanic women had higher odds of recounting being offered immediate postpartum LARC (adjusted odds ratio [OR]=3.88; 95% confidence interval [CI]=1.33–11.23), as did women with two children versus one child (OR=3.64; 95% CI=1.13–11.67). Compared to women 18–24 who wanted more children, women 30–34 who wanted more children had lower odds (OR=0.14; 95% CI=0.03–0.59), as did sterilized women 18–44 (OR=0.02; 95% CI=0.00–0.10). Seventy-four women (37% of all and 72% of those who recalled being offered) received immediate postpartum LARC. Sixty percent of those who received immediate postpartum LARC recalled that they were first offered it during prenatal care. Satisfaction was high but dropped between 3 and 6 months postpartum, mainly due to negative side effects. Continuation at 24 months postpartum was 76.9% (CI=71.7%–81.4%), with no difference between IUD and implant.

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Conclusions: Language barriers may have hindered equal access to immediate postpartum LARC for Spanish-speaking patients; younger patients were more likely to recall being offered immediate postpartum LARC, possibly due to providers' implicit biases or greater demand for LARC versus sterilization. Using formal interpretation services and patient-centered decision-making may improve patients' access to the contraception methods most aligned with their values and preferences.

Introduction

Many postpartum women are motivated to initiate contraception to prevent another pregnancy, yet few adopt methods following delivery (White et al., 2015). In a retrospective cohort study, 11.4% of women who had not obtained their desired long-acting reversible contraceptive (LARC) method postpartum had a subsequent short interval pregnancy (Harney et al., 2017). We previously documented large unmet demand for LARC methods in the postpartum period among publicly insured patients in Texas (Potter, Coleman-Minahan, et al., 2017). Among those who wanted more children and had a desire to use LARC after delivery, over 40% were instead using less effective methods such as condoms or withdrawal by 6 months postpartum. Barriers related to the health provider (e.g., women who received prenatal care from private physicians were less likely to use a desired IUD or implant postpartum) and Texas's gaps in the reproductive health safety net (e.g., Emergency Medicaid funds only cover delivery costs for undocumented immigrants) accounted for some of this mismatch between LARC preference and use. In addition, high demand for immediate postpartum placement of LARC methods, especially IUDs, among Texas's Mexican origin population is bolstered by the fact that Mexican public health institutions have been providing immediate postpartum IUD insertions since the 1970s (Potter, Hubert, et al., 2017).

Immediate postpartum LARC, placed prior to hospital discharge, is safe and effective at reducing rates of unintended pregnancies and short interpregnancy intervals (American College of Obstetricians and Gynecologists' Committee on Obstetric Practice, 2016). In June 2014, physicians at a large safety net public hospital in Texas, which serves a predominantly Hispanic population, collaborated with pharmacy, nursing, and administration leadership to facilitate patient access to immediate postpartum LARC. After obtaining administrative approval to provide immediate postpartum LARC, physicians and nursing staff received training on immediate postpartum LARC and procedure technique; the pharmacy stocked copper IUDs and levonorgestrel IUDs on the labor and delivery unit and etonogestrel implants on the postpartum unit in July 2014.

Prior to July 2014, the protocol for physicians and advanced practice providers who provided prenatal care in the hospital's affiliated clinics was to discuss postpartum contraception with their patients during prenatal care; physicians also reassessed the patient's postpartum contraceptive method preference again at the time of admission for delivery. After immediate postpartum LARC became available in the hospital, providers were instructed to include counseling about immediate postpartum LARC during prenatal care and at the time of admission for delivery. The goal in the contraception counseling sessions was to discuss all forms of birth control with all patients, even with those desiring

sterilization, and for the patient and the provider to make a patient-centered decision about the patient's contraception method preference. Some patients who initially express a desire for postpartum sterilization during prenatal care may choose a different method after learning about the advantages and disadvantages of each method. Exceptions to this standard admission protocol include patients who arrived in active labor where delivery was imminent or patients admitted with a postpartum tubal ligation consent form already signed. For patients whose delivery was imminent, physicians addressed contraceptive options on the postpartum ward and offered patients who were interested in a longer-acting option an immediate postpartum implant. Of note, resident physicians, under the supervision of faculty, were the only providers to see patients on admission to the hospital and were responsible for placing all immediate postpartum LARC devices. In addition, residents provided prenatal care in the hospital's resident outpatient clinic under faculty supervision but not in any of the other OB/GYN clinics affiliated with the hospital. Advanced practice providers primarily staff these other hospital-affiliated clinics.

While the protocol was to provide contraceptive counseling during prenatal care and at admission to the hospital, there was no set script for providers for contraceptive counseling; therefore, this counseling likely varied a great deal across providers during prenatal care and in the hospital. Moreover, given that the hospital serves a large Spanish-speaking population, many physicians rely on trained or ad hoc interpreters to provide contraceptive counseling during prenatal care and during patients' hospital stays. Trained interpreters typically conduct the service over the phone while ad hoc interpreters, usually family members, translate for the physician in person.

In this study, we address four questions regarding the county hospital's immediate postpartum LARC program: 1) what differences exist between women who recall being offered and women not offered immediate postpartum LARC; and, among those who obtained an immediate postpartum IUD or implant, 2) what differences exist for *when* women recall being offered immediate postpartum LARC methods; 3) what proportion of participants report being satisfied with these devices at 3 and 6 months postpartum; and 4) what proportion continued their LARC method during the 24 months after delivery.

2. Methods

Study Design

We use data from a prospective cohort of 1700 postpartum women recruited from eight hospitals in six cities in Texas for a study of postpartum contraceptive preferences and practices (Potter et al., 2017). Eligible women were aged 18 to 44, spoke either English or Spanish, and delivered with public insurance (Medicaid or Emergency Medicaid) or no insurance. We also only include women who desired to wait at least two years to have another child. We arrived at this by asking potential participants if they wanted to have another baby at some time in the future, and if so, how soon they would like to have another child. Women who stated they did not want another child or wanted to wait at least two years for another child were eligible to participate in the study.

We interviewed women face-to-face in either English or Spanish while still in the hospital postpartum after delivery (baseline) and by phone at 3, 6, 9, 12, 18 and 24 months postpartum. This paper focuses on the 199 patients recruited from the county hospital—which was the only hospital in the study providing immediate postpartum LARC—from mid-October to mid-December 2015. According to administrative data obtained from the hospital, approximately 403 women delivered at this Texas county hospital during the recruitment period. The institutional review boards of The University of Texas at Austin, the hospital, and the health district approved the study.

Measures

In the baseline interview, we asked the participant whether she was using or planned to obtain a contraceptive method before discharge; options included tubal ligation, implant, IUD, and injectable contraceptive. We also asked all participants, including those who received postpartum sterilization, whether they recalled if a provider offered them an IUD or implant during prenatal care or while in the hospital. In this study, we include women who were sterilized to evaluate whether they also recalled receiving counseling about immediate postpartum LARC during prenatal care. To measure who recalled discussing immediate postpartum LARC during pregnancy or at the hospital, we asked participants, “At any point during your pregnancy, did you discuss the possibility of getting the IUD [implant] inserted in the hospital, right after you delivered your baby?” If respondents reported that they did not discuss an IUD or implant during pregnancy, we asked, “At any time since you have been in the hospital, have you discussed getting the IUD [implant] inserted before you leave?”

We also collected sociodemographic information including age, race (Black/White/Other) and ethnicity (Hispanic/Non-Hispanic), language of interview (English/Spanish), education, and parity. We assessed other variables, including whether the woman wanted another child or children in the future (in which we grouped “yes” with “don’t know”) and asked the location of her prenatal care provider. Using the name of the clinic or site of prenatal care the participant provided, we created the following categories: the hospital’s resident outpatient clinic, OB/GYN clinics affiliated with the hospital, other public clinics, or private doctor.

Based on preliminary analyses, we found differences between Spanish-speaking and English-speaking Hispanic women. Therefore, we created a composite variable in which we present the distribution of Hispanic women by the language of their interview with a residual category for the remaining non-Hispanic English-speaking participants. Moreover, we found differences by future childbearing preferences, age, and receipt of postpartum sterilization, so created a composite variable to show the distribution of the sample using a composite of these three characteristics.

To better understand the timing of when counseling about immediate postpartum LARC first took place, we asked women who received immediate postpartum LARC, “When did you first discuss getting the IUD [implant] inserted in the hospital?” Responses included during prenatal care, at the hospital before delivery, at the hospital after delivery, never discussed, and other. Because residents were responsible for placing all immediate postpartum LARC

devices, we hypothesized that women who received prenatal care from the hospital's resident outpatient clinic would be more likely to recall receiving counseling about immediate postpartum LARC overall and, among those who obtained an immediate postpartum LARC device, to have received that counseling during prenatal care than women who received prenatal care at other sites.

In the follow-up interviews, we assessed women's current contraceptive method. In addition, at the three and six month postpartum interviews only, we asked women who received immediate postpartum LARC an additional question about satisfaction with the IUD or implant if they were still using the method at that time. Answer options were on a four-point scale that ranged from very satisfied to very unsatisfied. For women who changed their satisfaction rating between the two rounds of interviews, we recorded their reasons why.

Analysis

We present descriptive characteristics of the entire sample and of those who recalled being offered immediate postpartum LARC. We used Chi-square tests to compare the characteristics of women who recalled that their providers offered and did not offer them immediate postpartum LARC during either prenatal care or before hospital discharge. We then estimated a logistical regression model to examine factors associated with who recalled being offered immediate postpartum LARC. Among women who adopted immediate postpartum LARC, we present descriptive statistics on when women recalled that their providers first offered it to them as well as patients' satisfaction with their postpartum IUD or implant, which was measured at the three- and six-month postpartum interviews. Finally, we estimated continuation of the IUD or implant to 24 months postpartum using Kaplan-Meier survival curves, testing for differences between the two methods.

3. Results

Attrition Analysis

We retained 169 of the 199 women (84.9%) enrolled to 24 months postpartum. Of these 169 women, we retained 44/50 (88.0%) immediate postpartum implant recipients, 17/24 (70.8%) immediate postpartum IUD recipients, and 108/125 (86.4%) non-immediate postpartum LARC users; differences in retention are not statistically significant ($\chi^2=4.30$; $p=0.116$).

Description of Sample and Who Recalled Being Offered Immediate Postpartum LARC

Of the 199 women enrolled in the study, 74 (37%) received an immediate postpartum LARC device; 24 of these women (12%) had an IUD placed immediately following delivery and 50¹ (25%) had an implant placed before discharge.

Overall, respondents in this sample were young, high parity, predominantly Spanish-speaking Hispanic women who were married or cohabiting, had low education, received their prenatal care from a public provider, delivered vaginally, wanted more children or did

¹At the time of their baseline interview, an additional 3 women had a plan to obtain an implant before discharge but were lost to follow-up; 25/26 (96%) who had a plan to obtain an implant before discharge and completed a 3 month interview did indeed obtain it before discharge; 1 woman changed her mind and decided not to get the implant.

not know if they wanted more, and did not obtain a tubal ligation postpartum (Table 1). Just over half (103/199) of the women recalled being offered immediate postpartum LARC during prenatal care or in the hospital. Compared to younger women and those with lower parity, fewer older women and those with high parity recalled being offered immediate postpartum LARC. Spanish-speaking Hispanic women recalled being offered the option less often than English-speaking women of any race/ethnicity. About two-thirds women who completed high school compared to less than half for women with less and more than a high school degree reported being offered immediate postpartum LARC. There were no differences in who recalled being offered IUDs or implants by relationship status, prenatal care provider, or delivery type. Finally, only two women who obtained a tubal ligation reported being offered immediate postpartum LARC.

Predictors of Who Reported Being Offered Immediate Postpartum LARC

Logistic regression results show that those aged 30 to 34 who wanted more children had lower odds of recalling being offered an immediate postpartum IUD or implant versus women 18 to 24 who wanted more children (Table 2). The odds were higher for women with two children compared to those with one child; English-speaking Hispanic women had three times higher odds of recalling that their provider offered them immediate postpartum LARC compared to Spanish-speaking Hispanic women.

Results for Recipients of Immediate Postpartum LARC

A total of 74/103 (72%) women who recalled being offered immediate postpartum LARC obtained it before discharge. There was no statistically significant variation by socio-demographic characteristics in who obtained immediate postpartum LARC; by definition, no woman who obtained postpartum sterilization could have obtained a postpartum LARC (not shown).

Among women who obtained immediate postpartum LARC, the majority said that they recalled providers first offered the method during prenatal care (Table 3). However, there is variation on timing of counseling depending on prenatal care location. As we hypothesized, a higher percentage of patients (88%) who went to the hospital's resident outpatient clinic reported first hearing about immediate postpartum LARC during prenatal care compared to those who received prenatal care from the hospital's affiliated OB/GYN clinics (37%) and other public clinics (58%).

The majority of LARC users said they were either very satisfied or somewhat satisfied with their IUD or implant at 3 and 6 months postpartum. However, at 6 months, fewer reported being very satisfied while more reported being somewhat satisfied or somewhat/very unsatisfied than they did at 3 months postpartum (Table 4). The majority of women who downgraded their satisfaction recounted undesirable menstrual changes (e.g., "not having a normal period and unpredictable bleeding"), pain (e.g., cramps or headaches), or weight gain as the reasons for lower satisfaction.

In the two years following delivery, the continuation rate for the IUD and implant was 76.9% (CI=71.7%–81.4%; Figure 1). While the figure shows that continuation of the

implant is higher than the IUD, the log-rank test indicates the difference is not statistically significant ($\chi^2=1.57$; $p=0.210$).

4. Discussion

The American College of Obstetricians and Gynecologists recommends that providers routinely offer immediate postpartum LARC as a safe and effective contraceptive option for patients in the postpartum period (American College of Obstetricians and Gynecologists, 2017). We found that 37% of all women and 72% of women who recalled being offered immediate postpartum LARC received it at this hospital, where all women, regardless of insurance coverage, have access to these methods. This study demonstrates that a large majority of women who want to wait at least two years and who recalled being counseled about the option of immediate postpartum LARC will start using an IUD or implant before leaving the hospital.

These results corroborate women's demand for LARC postpartum shown in previous studies in Texas (Potter et al., 2016, 2017) and providers' perceptions for high patient demand for immediate postpartum LARC in Texas hospitals (Hill et al, 2019). In addition, by formally tracking who recalled being offered immediate postpartum LARC, we show that providers may not offer the option equitably to all women.

A strength of this study is that all women, regardless of their insurance coverage, had access to immediate postpartum LARC at this county safety net hospital where the pharmacy stocked IUDs on the labor and delivery unit and implants on the postpartum ward. By the time this study took place in late 2015, physicians had been placing immediate postpartum LARC for over a year and half and already established a routine to counsel patients for immediate postpartum LARC. However, despite the presence of the program for over a year prior to this study, we found that by late 2015, only half of women in this study recalled a provider offering an immediate postpartum LARC method either during prenatal care or before hospital discharge. Women who obtained a postpartum tubal ligation account for some of this gap. It is possible that providers did not fully counsel these women on all of their contraceptive options during prenatal care; however, it is also plausible that sterilized women may have strongly preferred sterilization and either told their providers they were not interested in other methods or were counseled about immediate postpartum LARC but did not recall it because it was not salient to them. In addition, different providers took care of study participants and contraceptive counseling likely varied from provider to provider.

Women aged 30 to 34 who wanted to continue childbearing recalled being offered immediate postpartum LARC less frequently compared to those 18 to 24 who wanted more children. It is possible that older women who want more children would be less likely to receive postpartum LARC counseling either because they may not have wanted to consider this option or because their providers may not have offered it. While one study (Weber et al., 2018) found that women 30–34 were more likely than younger women to receive a LARC method, it did not differentiate by women's future childbearing preferences. Similar to sterilized women, older women who want to continue childbearing may have told their providers that they were not interested in long-acting methods, which may have precluded

their providers from offering those methods. On the other hand, providers may have failed to fully counsel their patients on the importance of healthy interpregnancy intervals and the ability of women to remove a LARC method when they wish to resume childbearing.

Another possibility is that providers may have an implicit bias toward encouraging younger women to use a LARC method. Gomez and Wapman (2017) found that young Black and Latina women aged 18–24 reported implicit pressure to use a contraceptive method that their health care provider favored. It is possible that providers who counseled women in this study may have unconsciously counseled younger women about immediate postpartum LARC more frequently than older women. These providers may have an unconscious preference for LARC for younger women based on the belief that they may not be as responsible to manage their own contraceptive needs as effectively as older women. A more sustainable and respectful counseling practice would instead be one in which providers help each woman get the contraceptive method that best aligns with her values and preferences by working with the patient to make the decision. (Dehlendorf et al., 2013).

Among women who obtained immediate postpartum LARC, we found differences in when women recalled that they were first offered it. Those who received prenatal care in the hospital's resident outpatient clinic had a very good chance of recalling being offered one of these methods while those who received care in one of the hospital's affiliated clinics had a much lower chance of doing so. In other settings, women have recounted their preference for receiving contraceptive counseling, including about immediate postpartum LARC, early and often during prenatal care (Mann et al., 2019; Sznajder et al., 2020). The wide variation of when women recalled providers offering them immediate postpartum LARC demonstrates that providers could improve patient satisfaction by ensuring that they present the full range of contraceptive options throughout pregnancy to all women.

We found that Spanish-speaking patients recalled being offered immediate postpartum LARC less often than English-speaking patients. Flores et al. (Flores et al., 2003) found that the quality of information exchange is lower with an interpreter compared to direct communication between the provider and patient in their language of preference. They also found an average of 31 errors in medical interpretation per clinical encounter with both trained interpreters and ad hoc interpreters. Trained interpreters were more likely to make false fluency errors by not knowing the correct terminology for a medical word and using another term altogether; ad hoc interpreters' most frequent error was to omit information. It is likely that using trained or ad hoc interpreters for contraceptive counseling led to poorer quality counseling, resulting in less information exchange, which may explain why fewer Spanish-speaking patients recalled being offered immediate postpartum LARC.

Another possibility is that physicians may be skipping the use of interpreters for some of their patient interactions all together, which may lead to poor patient understanding of their contraceptive options and poorer quality interactions compared to English-speaking patients. The hospital policy at the time of the study required a formal interpreter for all consents on admission, but did not require interpreter use for every patient interaction. Tang (Tang et al., 2014) found that only 11% of resident physicians reported using a professional interpreter for 81–100% of their encounters with patients of limited English proficiency and 91% of

resident physicians reported communication with patients of limited English proficiency as slightly or much worse. Another study (Diamond et al., 2012) found that the reasons for lack of use of a professional interpreter included lack of time, varying ability of the physicians to speak some of the non-English language, and physicians reporting that they were “getting by.” Our results indicate that, like physicians in these earlier studies, many physicians at this hospital used the minimal amount of interpretation services necessary, likely in an effort to expedite the time it takes to round and see patients. The hospital system has since required that providers use formal interpretation services for all non-English patient encounters or that the provider be certified as an official interpreter. Consistent use of formal interpretation services should be implemented in all clinical encounters so as to improve patient counseling and patient understanding and to ultimately provide more equitable patient care.

Consistent with the high continuation rates we observed, women reported that they were generally satisfied with the IUD and implant in the postpartum period. However, similar to previous studies (Dickerson et al., n.d.; Diedrich et al., 2015), we found that changes in pain and bleeding were associated with reduced satisfaction. Indeed, most patients who downgraded their satisfaction rating between 3 and 6 months postpartum reported their satisfaction decreased due to menstrual changes and pain. Patients who were counseled in advance about side effects, including negative ones, were more likely to be satisfied over the long term than patients not counseled (Backman et al., 2002; Dehlendorf et al., 2013).

Our study has several limitations. Our sample is based on one community hospital and we have a small sample size for a longitudinal study. However, to our knowledge, this study is the first of its kind to ask postpartum women about whether providers offered them immediate postpartum LARC during prenatal care or in the hospital prior to discharge and whether those who recalled being offered the method received it, and then to follow them over time to measure satisfaction and continuation. In addition, we only asked direct questions about satisfaction up to 6 months postpartum. There is a chance that patients who reported menstrual changes may have improved with longer duration of use for the hormonal LARC methods. Hidalgo et al. found that 25% of hormonal IUD users reported vaginal spotting 6 months post-insertion but this decreased to 8% at 18 months (Hidalgo et al., 2002). Finally, another limitation is patients were required to recall the content of their contraceptive counseling during prenatal care and in the hospital. Because the study was based on patient self-report, there could be recall bias and women may not accurately report the content of provider counseling and the timing of when providers communicated with them.

Implications for Practice

The providers who counseled patients recruited for this study did not use a standard text or script and no set script or standard text has been added since this study took place. However, starting in 2016, after all participants had been recruited, first year residents received an additional lecture and formal training on immediate postpartum LARC placement and counseling the week prior to starting residency. In addition, the residency program has incorporated a family planning lecture series, which includes one lecture each month dedicated to family planning to enhance resident education on contraceptive management

and other family planning topics. We contend that a set text or script to counsel patients would make it more difficult for providers to help patients access their preferred contraceptive method of choice. Instead, we believe providers should work with patients to come to a patient-centered decision on their contraceptive method of choice.

Patient-centered counseling is even more important as this study revealed that certain groups may not have received adequate counseling. Younger women may have experienced implicit pressure to receive an immediate postpartum LARC device from their providers and many Spanish-speaking women did not recall being offered the option of immediate postpartum LARC. Providers should continue to work on consistently providing more consistent unbiased contraceptive counseling for all patients throughout prenatal care. This could potentially decrease the impact of providers' implicit biases. In addition, high-quality formal interpretation services should be used in all clinical encounters to ensure that all patients, regardless of their native language, are offered the full range of contraceptive methods in a way that respects patients' reproductive autonomy.

Conclusion

Our study shows that, among low-income, predominantly Hispanic postpartum women who delivered at a large county safety net hospital in Texas, just over half (103/199) recalled being offered immediate postpartum LARC. However, reports about whether they received counseling about immediate postpartum LARC may be underestimated among some women, particularly those who received postpartum sterilization, because it was not salient to them. Seventy-two percent of women who recalled being offered immediate postpartum LARC obtained it prior to discharge. The majority of these women were satisfied with their IUD or implant and were still using their device 24 months postpartum. However, language barriers may have prevented equal access to immediate postpartum LARC for Spanish-speaking patients. Additionally, younger patients were more likely to recall having been offered immediate postpartum LARC, possibly due to providers' implicit biases. Using high-quality formal interpretation services and patient-centered decision-making may improve patients' access to their contraception method of choice and may improve equity.

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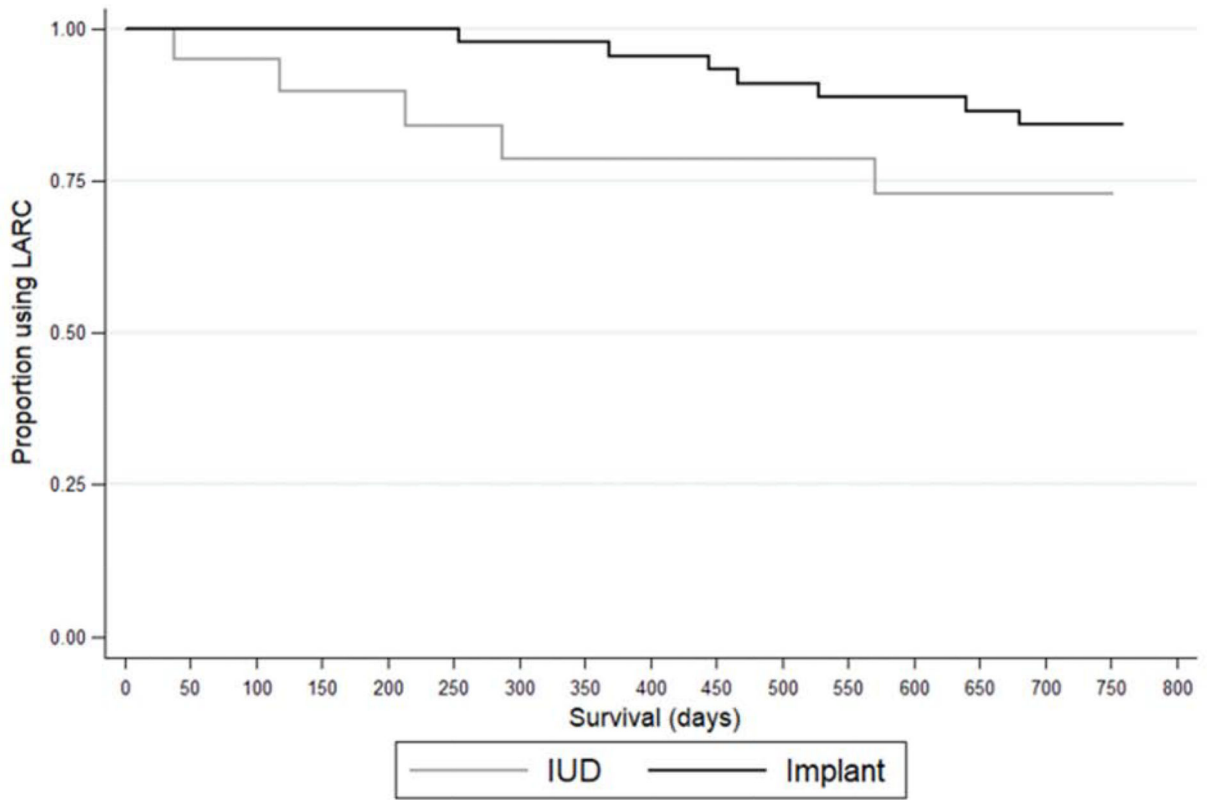


Figure 1. IUD and implant continuation postpartum

Note: Kaplan-Meier curves for implants and IUDs; difference is not statistically significant.

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Table 1.

Characteristics of participants who recall being offered and not offered immediate postpartum long-acting reversible contraception (IPP LARC)

Respondent Characteristics	Total		Recall being offered IPP LARC		Offered vs. Not offered
	N=199 ^a	%	n=103	% ^b	p-value
Future Childbearing Desires/Sterilization Status/Age					<0.001
<i>Wants more children, not sterilized postpartum</i>					
18–24	36	18.1	25	69.4	
25–29	28	14.1	21	75.0	
30–34	19	9.6	6	31.6	
35–44	2	1.0	0	0.0	
<i>Does not want more children, not sterilized postpartum</i>					
18–24	15	7.5	12	80.0	
25–29	19	9.6	14	73.7	
30–34	21	10.6	12	57.1	
35–44	17	8.5	11	64.7	
<i>Does not want more children, sterilized postpartum</i>					
18–44	42	21.1	2	4.8	
Parity					0.028
1	38	19.1	22	57.9	
2	55	27.6	36	65.5	
3	38	19.1	14	36.8	
4	68	34.2	31	45.6	
Ethnicity, Language of Interview					<0.001
Hispanic, Spanish	121	60.8	48	39.7	
Hispanic, English	41	20.6	29	70.7	
Black/White/Other, English	37	18.6	26	70.3	
Education					0.012
Less than high school	102	51.3	44	43.1	
High school diploma	68	34.2	45	66.2	
More than high school	29	14.6	14	48.3	
Prenatal Care Provider					0.441
Hospital's resident outpatient clinic	60	31.2	35	58.3	
Hospital-affiliated OB/GYN clinics ^a	55	27.6	28	50.9	
Other public clinics	70	35.2	33	47.1	
Private doctors	10	5.0	5	50.0	
No prenatal care	4	2.0	2	50.0	

^aColumn percentages

^bRow percentages

^cIncludes 18 women who answered “don't know”

Table 2.

Odds ratios for being offered immediate postpartum long-acting reversible contraception

Characteristic	Odds Ratio	95% Confidence Interval
Future Childbearing Desires/Sterilization Status/Age		
<i>Wants more children, not sterilized postpartum</i>		
18–24 (ref.)	–	–
25–29	1.57	0.42–5.89
30–34	0.14**	0.03–0.63
35–44	<i>–^a</i>	<i>–^a</i>
<i>Does not want more children, not sterilized postpartum</i>		
18–24	1.11	0.22–5.51
25–29	0.67	0.15–3.08
30–34	0.43	0.10–1.80
35–44	0.60	0.12–3.05
<i>Does not want more children, sterilized postpartum</i>		
18–44	0.01***	0.00–0.09
Parity		
1 (ref.)	–	–
2	3.59*	1.10–11.75
3	1.74	0.45–6.69
4	4.47	1.15–17.39
Ethnicity, Language of Interview		
Hispanic, Spanish (ref.)	–	–
Hispanic, English	3.18*	1.15–8.80
Black/White/Other, English	2.26	0.73–6.98
Education		
Less than high school (ref.)	–	–
High school diploma	1.69	0.70–4.10
More than high school	1.01	0.31–3.31
Prenatal Care Provider		
Hospital's resident outpatient clinic (ref.)	–	–
Hospital-affiliated OB/GYN clinics ^a	0.75	0.27–2.10
Other public clinics	0.68	0.26–1.79
Private doctors	0.22	0.04–1.15
No prenatal care	0.24	0.02–3.34

*
p<.05**
p<.01***
p<.001, N=197^aNeither of the two women in this category were offered immediate postpartum LARC; these two cases dropped from the model.

Table 3.

Immediate postpartum LARC recipients' recall of when contraception counseling about immediate postpartum LARC first received, by location of prenatal care*

Prenatal Care Location	During Prenatal Care		At Hospital Pre- or Post-delivery	
	<i>n</i>	%	<i>n</i>	%
Hospital's resident outpatient clinic	21	87.5	3	12.5
Hospital-affiliated OB/GYN clinics ^a	7	36.8	12	63.2
Other public clinics	15	57.7	11	42.3
Private doctors	1	33.3	2	66.7
No prenatal care	0	0.0	2	100.0
Total	44	59.4	30	40.5

* Chi-square $p=0.003$; $N=74$

^a Primarily staffed by midlevel providers

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Table 4.

Satisfaction with immediate postpartum long-acting reversible contraception at three and six months postpartum

Satisfaction	3 Months Postpartum		6 Months Postpartum	
	<i>n</i>	%	<i>n</i>	%
Very satisfied	38	51.4	25	33.8
Somewhat satisfied	15	20.3	23	31.1
Somewhat/very unsatisfied	8	10.8	11	14.9
No longer using LARC ^a	4	5.4	5	6.8
Lost to follow up ^b	9	12.2	10	13.5
Total	74	100.0	74	100.0

^aAt 3 months postpartum 2 implant and 2 IUD users were no longer using the method (1 of these was expelled) and n=1 was no longer using the IUD at 6 months postpartum.

^bDid not complete the 3-month interview (n=2) or 6-month interview (n=3) or were lost to follow-up entirely (n=7; 3 implant and 4 IUD users).