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Interest in using intrauterine contraception when the option of self-removal is provided

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Introduction

Intrauterine contraceptives (IUCs) are among the most effective, convenient and cost-effective methods of preventing pregnancy. Nationally, only 5.5% of contracepting women use IUCs.[1]

There is little health risk to a woman from removing her own IUC. The primary risk of vasovagal symptoms arises from movement through the cervix. A recent study of IUC insertions found 1 episode of syncope in 2,172 insertions.[2] Given that IUC removal requires less cervical manipulation than IUC placement, a syncopal reaction is expected in less than 0.01% of attempts at IUC removal.

The primary factor determining ease of IUC self-removal is likely to be the length of the IUC strings. It is possible for clinicians to shorten IUC strings for women who prefer to avoid the option of self-removal while leaving the strings longer for women who wish to retain the option.

Materials and methods

Between April and September 2010, women seeking abortion services were asked to complete a computer-guided survey available in English and Spanish on laptops in the waiting rooms of 6 large abortion clinics across the country—located in or near the cities of Saint Louis, Chicago, Little Rock, Seattle, Philadelphia and Oakland. Women received $20 for completing the survey. The research protocol was approved by the UCSF Committee for Human Research.

To assess interest in a self-removable IUC, we provided a short paragraph describing the two IUCs currently on the market and asked women if they had heard of either IUC and would consider using one. We then asked,

"With the IUCs that are currently available you must go to your provider to have your IUC removed. If a new IUC was available that your provider told you was safe to remove by yourself at home, would you be more or less likely to consider using an IUC as your method of birth control?"

If women responded that they were either more likely or less likely to consider using an IUC, we asked them to choose from a list of specific reasons why, or to type in a different reason. We then asked them if they had an IUC that could be removed at home whether they would be willing to try to remove it themselves ("by pulling on a small string inside and at the top of your vagina").

Interest in intrauterine contraception and self-removal

Willingness to consider use of an IUC in the future		
No	383	64%
Yes	219	36%
Among all women, likelihood of considering an IUC if it was safe to remove at home		
More likely	151	25%
Not more or less likely	187	31%
Less likely	205	34%
Missing	59	10%
Among women previously considering an IUC, likelihood of considering an IUC if it was safe to remove at home		
More likely	86	39%
Not more or less likely	70	32%
Less likely	51	23%
Missing	12	5%
Among women NOT previously considering an IUC, likelihood of considering an IUC if it was safe to remove at home		
More likely	65	17%
Not more or less likely	117	31%
Less likely	154	40%
Missing	47	12%
Likelihood of attempting self-removal if wanted to remove such an IUC among all women		
Yes, I would try to remove it myself	149	25%
No, I would still want a provider to remove it	337	56%
Don't know	76	13%
Missing	40	7%

Results

Of the 602 study participants, 75% were seeking a first trimester abortion. Most were in their twenties (52%) with 16% younger than that and 21% older. A quarter were white/non-Hispanic, 44% African American, 10% Hispanic and 10% Asian/Pacific Islanders or American Indians. Age and race/ethnicity data are missing for 10%.

The most common reasons for preferring self-removal were "it would be less of a hassle" (53%) and "it would be easier to try an IUC to see if I like it" (51%). The most common reason for *not* preferring a self-removable IUC was "I would feel less safe" (58%). Only 43 women (7%) reported past IUC use, but 36% expressed willingness to consider future use of an IUC. One quarter said they would be more willing to try an IUC if they could remove it themselves. Among women not previously considering an IUC, 17% said they would be more likely to consider it if they could remove it themselves.

After controlling for multiple covariates, neither age nor race/ethnicity predicted interest in a self-removable IUC. Women who were willing to consider using one before they heard about self-removal had significantly higher odds of liking the self-removal option (OR 3.16, 95% CI [2.16, 4.63]). Women who reported that they were somewhat or extremely likely to have unprotected sex in the future were more likely to prefer a self-removable IUC (OR=1.63, 95% CI [.03, 2.59]).

Discussion

In our small sample of 43 past IUC users, one woman had removed her own IUC. Further study is needed to determine how often women remove their own IUCs, the effect of this on IUC expulsion rates, and optimal patient education regarding this practice. Women should be counseled about expected symptoms after insertion so they do not prematurely remove their IUC for symptoms that would soon resolve. They should be warned that they cannot reinsert the device and counseled that they can become pregnant immediately after removing their IUC.

Our study indicates that awareness of the self-removal option may increase its use among women at high risk of a repeat unintended pregnancy. Reframing the IUC as a female-controlled method may result in increased support and use. Giving women the option to remove their IUCs at home corresponds to other efforts to reduce barriers to reproductive health services and contraception provision, reduce medical costs, and increase access by more efficiently using clinician time.

Predictors of being more willing to consider using an IUC with the option of self-removal

Predictor	Odds ratio	95% CI
Age, years:		
■ 14-19	1.26	(0.69,2.32)
■ 20-24	1.23	(0.74,2.02)
■ 25-29	0.96	(0.55,1.66)
■ 30+, missing		
Race/ethnicity:		
■ African American	1.24	(0.79,1.93)
■ Asian / Pacific Islander	0.99	(0.42,2.33)
■ American Indian	0.62	(0.19,1.97)
■ Hispanic	0.83	(0.41,1.67)
■ White non-Hispanic, missing		
Other factors:		
■ Previous use of an IUC	1.27	(0.59,2.73)
■ Willing to consider future IUC use	3.49*	(2.35,5.18)
■ Getting birth control without doctor is important	1.60*	(1.08,2.38)
■ Unprotected intercourse likely in next 3 months	1.63*	(1.03,2.59)

* P<0.05

[1] Mosher WD, Jones J. Vital Health Stat 2010;23:1-44.
[2] Goodman S et al. Contraception 2008;78:136-42.