

# Copper IUD compared to oral medication for emergency contraception: a study of patient choice and satisfaction

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## BACKGROUND

- 80% of all pregnancies in teens in the US are unintended.
- Long acting reversible contraception (LARC) such as IUDs have an effectiveness of 99% in the first year of use.
- The copper IUD (Cu-IUD) is the most efficacious method of emergency contraception (EC): pregnancy rates after EC treatment with Cu-IUD range from 0.04% to 0.19% compared to 2% to 3% with oral levonorgestrel (LNG).
- Oral LNG is much more readily available because the Cu-IUD often requires multiple clinic visits.
- Under-utilization of Cu-IUD as EC is due to lack of awareness regarding the Cu-IUD's superior efficacy and challenges of integrating same-day Cu-IUD insertions into clinic flow.
- The goal of this study was to determine the feasibility of offering same-day copper IUD insertion as EC to young women and evaluate decision-making, satisfaction and continuation for Cu-IUD versus oral medication for EC.

### Hypotheses:

- Same-day copper IUD insertion as EC will be feasible in the majority of women who are eligible and choose the method
- Patient satisfaction with the process of same-day copper IUD insertion for EC and with the method at 6 months post insertion will be high.

## METHODS

- Design:** We conducted a prospective cohort study of uptake, satisfaction and continuation of Cu-IUD vs oral LNG among adolescents and young adults seeking EC.
- Site:** We recruited women from a university-affiliated family planning clinic, specializing in reproductive health needs of adolescents and young adults. This clinic had recently modified its clinical procedures in order to routinely counsel on, and offer, the Cu-IUD and traditional oral EC medication to all appropriate patients seeking emergency contraception.
- Eligibility:** All patients seeking EC were offered a Cu-IUD up to 7 days or oral LNG up to 5 days post-unprotected sex. Patients who chose the Cu-IUD completed a baseline survey after insertion and a telephone follow-up survey six months post insertion.
- Baseline data** collected at enrollment included demographic and clinic experience data.
- Six month follow-up** done only for those who chose Cu-IUD
  - Expectations vs. experience of copper IUD use
  - Satisfaction at 6 months
  - Would choose copper IUD again
  - Would recommend copper IUD to a friend
- Analysis:** Analysis were performed using Stata 13.0. Descriptive statistics were done to describe baseline characteristics of study participants.

## RESULTS

17.5% (24/137) of participants chose the copper IUD. At 6 months: 2 lost to follow up, 19/22 (86.4%) still using the Cu-IUD

**Table 1. Participant Characteristics**

Variable	Total N (%)	Cu-IUD N (%)	Oral EC N (%)	p-value
Total	137	24 (17.5)	113 (82.5)	
Age	20.01±4.14	21.33±4.50	19.73±4.02	<b>0.084</b>
Race*				0.23
White	9 (6.6)	1 (4.2)	8 (7.1)	
Latina	71 (52.2)	15 (62.5)	56 (50.0)	
African American	25 (18.4)	4 (16.7)	21 (18.8)	
Asian	14 (10.3)	0 (0.0)	14 (12.5)	
NH/PI	4 (2.9)	2 (8.3)	2 (1.8)	
Mixed	13 (9.6)	2 (8.3)	11 (9.8)	
Relationship				0.63
Single	22 (16.2)	3 (12.5)	19 (17.0)	
In a relationship	106 (77.9)	19 (79.2)	87 (77.7)	
Cohabiting	6 (4.4)	2 (8.3)	4 (3.6)	
Married	2 (1.5)	0 (0.0)	2 (1.8)	
Education				0.16
<= HS/equivalent	51 (37.2)	6 (25.0)	46 (40.7)	
Completed HS/GED	31 (22.6)	7 (29.2)	24 (21.2)	
College/vocational	45 (32.8)	7 (29.2)	38 (33.6)	
Completed college	9 (6.6)	4 (16.7)	5 (4.4)	
Heard of as EC:				
Copper IUD	60	12 (50.0)	48 (44.4)	0.55
EC pill	130	23 (95.8)	107 (95.5)	1.0
Left clinic with BCM	73	24 (100)	49 (43.8)	<b>&lt;0.0001</b>
Partners in the past 12 months	2.12 (1.52)	2.71 (2.31)	1.99 (1.28)	<b>0.036</b>
Number of pregnancies				0.87
0	93 (67.9)	16 (66.7)	77 (68.1)	
1	23 (16.8)	3 (12.5)	20 (17.7)	
2+	21 (16.3)	5 (10.8)	16 (14.2)	
Number of children				0.28
0	120 (87.6)	19 (79.2)	101 (89.4)	
1	16 (11.7)	5 (20.8)	11 (9.7)	
2+	1 (0.7)	0	1 (0.9)	
Number of abortions				0.60
0	102 (74.5)	18 (75)	84 (74.3)	
1	21 (15.3)	3 (12.5)	18 (15.9)	
2+	14 (10.2)	3 (12.5)	11 (9.8)	
Frequency of Sex				<b>0.006</b>
Daily	12 (8.9)	6 (25.0)	6 (5.4)	
Weekly	46 (34.1)	10 (41.7)	36 (32.4)	
Monthly	58 (45.9)	7 (29.2)	51 (45.9)	
Annually	19 (14.1)	1 (4.2)	18 (16.2)	

\* Missing data for some variables

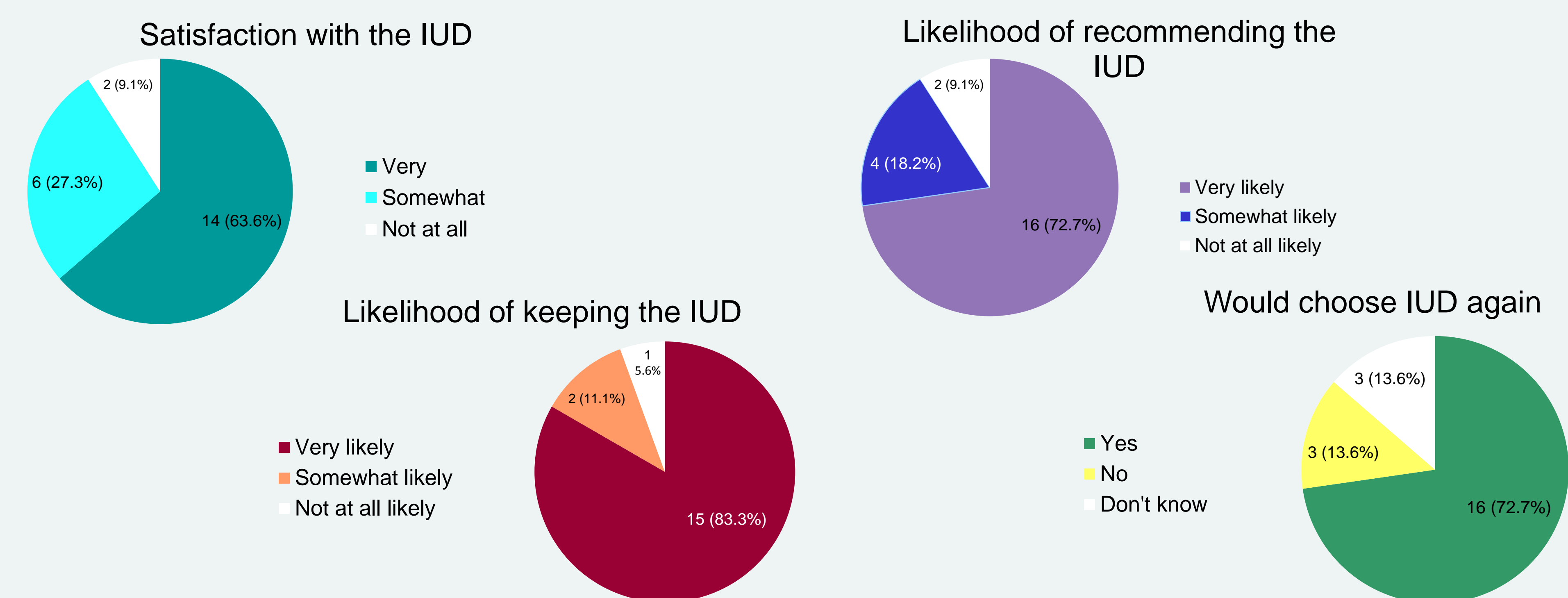
**Table 2. Visit Characteristics**

Variable	Total N (%)	Cu-IUD N (%)	Oral EC N (%)	p-value
Total	137	24 (17.5)	113 (82.5)	
If pregnant today would:				<b>0.01</b>
Continue pregnancy	54 (41.2)	15 (65.2)	39 (36.1)	
Have abortion	77 (58.8)	8 (34.8)	69 (63.9)	
Importance of preventing pregnancy today:				0.25
Very	122 (89.7)	23 (95.8)	00 (88.4)	
Somewhat	14 (10.3)	1 (4.2)	13 (11.6)	
Not	0	0	0	
How happy if became pregnant today:				<b>0.01</b>
Very happy	6 (4.5)	3 (12.5)	3 (2.8)	
Somewhat happy	31 (23.5)	10 (41.7)	21 (19.4)	
Somewhat unhappy	29 (22.0)	3 (12.5)	26 (24.1)	
Very unhappy	66 (50.0)	8 (33.3)	58 (53.7)	
Consider how long method would last:				<b>0.05</b>
A lot	61 (44.5)	16 (66.7)	45 (39.8)	
Somewhat	58 (42.3)	8 (33.3)	50 (44.2)	
Not at all	17 (12.4)	0	17 (12.4)	
Importance of how to take/use method:				0.14
A lot	72 (52.9)	13 (54.2)	59 (52.7)	
Somewhat	45 (33.1)	5 (20.8)	40 (35.7)	
Not at all	19 (14.0)	6 (25.0)	13 (11.6)	
Sure of method choice:				0.3
Very	100 (74.1)	20 (87.0)	80 (71.4)	
Somewhat	33 (24.4)	3 (13.0)	30 (26.8)	
Not at all	0	0	0	
Length of appointment:				0.12
Fast	36 (26.7)	3 (13.0)	33 (29.5)	
Average	89 (65.9)	20 (87.0)	69 (61.6)	
Too long	9 (6.7)	0	9 (8.0)	
EC information:				1.0
Good	130 (96.3)	23 (95.8)	107 (96.4)	
Bad	5 (3.7)	1 (4.2)	4 (3.6)	
Average	0	0	0	
Contraception information:				1.0
Good	126 (93.3)	23 (95.8)	103 (92.8)	
Bad	0	0	0	
Average	9 (6.7)	1 (4.2)	8 (7.2)	
Recommend to a friend:				0.7
Yes	124 (95.2)	23 (95.8)	101 (91.8)	
No	10 (7.5)	1 (4.2)	9 (8.2)	

**Table 3. Correlates of Cu-IUD Continuation at 6 months**

Variable	Continuation N (%)	Discontinuation N (%)	p-value
Total	19 (85.4)	3 (13.6)	
Age	20.0±3.6	21.6±4.9	0.6
Race			<b>0.02</b>
White	0	1 (33.3)	
Latina	13 (68.4)	0	
African American	3 (15.8)	1 (33.3)	
NH/PI	1 (5.3)	1 (33.3)	
Mixed	2 (10.5)	0	
Relationship			<b>0.02</b>
Single	1 (5.3)	2 (66.7)	
In a relationship	16 (84.2)	1 (33.3)	
Cohabiting	2 (10.5)	0	
Education			0.06
<= HS/equivalent	5 (26.3)	0	
Completed HS/GED	4 (21.1)	3 (100.0)	
College/vocational	6 (31.6)	0	
Completed college	4 (21.1)	0	
Number of pregnancies			0.4
0	13 (68.4)	2 (66.7)	
1	2 (10.5)	0	
2	3 (15.8)	0	
3	1 (5.3)	1 (33.3)	
Number of children			0.5
0	16 (84.2)	2 (66.7)	
1	3 (15.8)	1 (33.3)	
Number of abortions			0.5
0	14 (73.7)	2 (66.7)	
1	3 (15.8)	0	
2+	2 (10.5)	1 (33.3)	
Frequency of Sex			0.5
Daily	6 (31.6)	0	
Weekly	7 (36.8)	1 (33.3)	
Monthly	5 (26.3)	2 (66.7)	
Annually	1 (5.3)	0	

**Figure 1. Satisfaction with the Cu-IUD as EC and LARC**



## DISCUSSION

- Young, nulligravid women are receptive to using the Cu-IUD as EC
- Most women who choose the Cu-IUD as EC continue its use at 6 months
- Offering same-day Cu-IUD insertions for patients seeking EC has the potential to decrease unintended pregnancy through more effective EC use and long-term contraception.
- Optimal strategies for implementation of offering Cu-IUD as EC should be investigated

