ผลของการให้ความรู้เรื่องการคุมกำเนิดช่วงก่อนคลอด ต่ออัตราการเลือกใช้วิธีการคุมกำเนิดแบบชั่วคราวระยะยาวในสตรีตั้งครรภ์วัยรุ่นที่โรงพยาบาลสรรพสิทธิประสงค์: การศึกษาทดลองแบบสุ่มแบบมีกลุ่มเปรียบเทียบ

หทัยพร ล้ำเลิศปัญญา[1], ปรานี ศาสตราธรรม[1], ปริญญา ชำนาญ[2]

รับบทความ: 28 มีนาคม 2568 ปรับแก้บทความ: 3 กรกฎาคม 2568 ตอบรับตีพิมพ์: 15 กรกฎาคม 2568

บทคัดย่อ

วัตถุประสงค์: เพื่อศึกษาผลของการให้ความรู้เรื่องการคุมกำเนิดช่วงระยะก่อนคลอด ต่อการตัดสินใจเลือกใช้วิธีคุมกำเนิดแบบชั่วคราวระยะยาว ในสตรีตั้งครรภ์วัยรุ่น

วัสดุและวิธีการ: ทำการศึกษาทดลองแบบสุ่มในอาสาสมัคร สตรีตั้งครรภ์ที่มีอายุน้อยกว่า 20 ปี ที่เข้ารับบริการฝากครรภ์ ในช่วงอายุครรภ์ มากกว่าหรือเท่ากับ 28 สัปดาห์ขึ้นไป โดยแบ่งอาสาสมัครออกเป็นสองกลุ่ม ได้แก่ กลุ่มที่1) ได้รับการให้ความรู้เกี่ยวกับการคุมกำเนิด แบบตัวต่อตัว เป็นระยะเวลาประมาณ 15 นาที เพิ่มเติมในช่วงระยะก่อนคลอด หรือ กลุ่มที่2) ได้รับความรู้เกี่ยวกับการคุมกำเนิดตามมาตรฐานในช่วงระยะหลังคลอดเท่านั้น เก็บข้อมูลผลลัพธ์วิธีคุมกำเนิดที่อาสาสมัครเลือกใช้จริงที่ 4 สัปดาห์หลังคลอด รวมถึงสอบถามเหตุผลของการเลือก หรือ ไม่เลือกใช้วิธีคุมกำเนิด

ผลการศึกษา: การเลือกใช้วิธีคุมกำเนิดแบบชั่วคราวระยะยาว ไม่มีความแตกต่างกันอย่างมีนัยสำคัญ เมื่อเปรียบเทียบระหว่างกลุ่มที่ได้รับความรู้เกี่ยวกับการคุมกำเนิดช่วงระยะก่อนคลอดเพิ่มเติม กับกลุ่มที่ได้รับความรู้แค่ในช่วงหลังคลอด (ร้อยละ83.3 เทียบกับ ร้อยละ71.4 ในกลุ่มทดลองและกลุ่มควบคุม P=0.192) กลุ่มอาสาสมัครสตรีตั้งครรภ์วัยรุ่นส่วนมาก (ร้อยละ61.9) เลือกใช้วิธีการคุมกำเนิดด้วยตัวเอง เหตุผลหลักสามข้อที่ทำให้กลุ่มอาสาสมัครเลือกใช้วิธีการคุมกำเนิดแบบชั่วคราวระยะยาว ได้แก่ ระยะเวลาในการคุมกำเนิดได้ยาวนาน ประสิทธิภาพในการคุมกำเนิดดี และสะดวก ส่วนเหตุผลหลักสามข้อที่ทำให้อาสาสมัครไม่เลือกใช้วิธีการคุมกำเนิดแบบชั่วคราวระยะยาว ได้แก่ กังวลเรื่องความเจ็บปวด ผลข้างเคียงเรื่องเลือดออกกะปริดกะปรอยทางช่องคลอด และ เคยมีประสบการณ์ที่ไม่ดีเกี่ยวกับการคุมกำเนิดแบบชั่วคราวระยะยาว

สรุป: การตัดสินใจเลือกใช้การคุมกำเนิดแบบชั่วคราวระยะยาวของมารดาวัยรุ่น ไม่แตกต่างกัน ไม่ว่าจะได้รับความรู้เกี่ยวกับการคุมกำเนิดเพิ่มเติมในช่วงระยะก่อนคลอดหรือไม่

คำสำคัญ: สตรีตั้งครรภ์วัยรุ่น, การคุมกำเนิด, การคุมกำเนิดแบบชั่วคราวระยะยาว, การให้ความรู้ช่วงระยะก่อนคลอด

[1] กลุ่มงานสูตินรีเวชกรรม โรงพยาบาลสรรพสิทธิประสงค์

[2] กลุ่มงานเวชกรรมสังคม โรงพยาบาลสรรพสิทธิประสงค์

ผู้นิพนธ์ที่รับผิดชอบบทความ: แพทย์หญิงปรานี ศาสตราธรรม กลุ่มงานสูตินรีเวชกรรม โรงพยาบาลสรรพสิทธิประสงค์ ตำบลในเมือง อำเภอเมือง จังหวัดอุบลราชธานี 34000. E-mail: topgauze@gmail.com

Introduction

Adolescent pregnancy is by far an important issue causing both social and health problems in Thailand and worldwide. One of the problems following adolescent pregnancy is unsafe abortion[1] leading to severe hemorrhage and maternal mortality. In addition, adolescent pregnancy was associated with several complications such as higher incidence of pregnancy induced hypertension, anemia and preterm labor.[2-3] For social aspect, adolescent pregnancy led to discontinuation of education, and loss of opportunities to earn a good income.[4]

In Thailand, incidence of adolescent pregnancy was rising in the past 10 years (2000-2012) from 31.1 to 53.4 per thousand women, but slightly decrease to 39.6 in year 2017. While repeated adolescent pregnant women rate was about 11%. In Ubonratchathani, the incidence of 38.7 per thousand women is considered higher than other provinces of Thailand.[5] Even though the trends of adolescent pregnancy had decreased, World Health Organization (WHO) suggested the goal of 10 per thousand women should be achieved.

The effective contraception has an important role to lower the adolescent pregnancy rate[6], especially the long-acting reversible contraception (LARC) which refers to contraceptive methods that required administration less than once per cycle – this included intrauterine device, contraceptive injection and intradermal implant. So Thai Ministry of Public Health had a policy of encouraging the use of LARC to 80 percent coverage in the year 2022.[7]

Previous studies[8] showed that giving proper education and information to the pregnant women increased the use of contraception. However, there is currently no consensus about timing and style of contraceptive counseling. Besides, there were not many previous studies that focus on adolescent pregnancy which considered a special population. Therefore, the primary outcome of this study is the efficacy of antenatal contraceptive counseling on decision of LARC used in adolescent pregnancy. The secondary outcomes included the reasons and influencing factors to pregnant women on their decision.

Materials and Methods

A randomized controlled trial was performed in Sunpasitthiprasong Hospital from 1st February to 31st October 2020 after approval of ethical committee (064/62C). This study was registered at http://www.thaiclinicaltrials.gov (TCTR20200703003). All Thai pregnant women who attended at antenatal care clinic (ANC) at 28 weeks of gestation or more, age less than 20 years old on the estimated date of confinement were enrolled. The women who are contraindicated for LARC used

or unable to communicate were excluded. Since the participants in this study is an adolescent, their legal guardians were also informed about the study process. After giving written informed consent, random identification number were computer-generated and put in opaque envelops. A research staff opened the envelope according to the order that the participants enrolled into the study. Baseline information were collected including age, religion, occupation, income, education degree, marriage status, previous contraception, pregnancy intention, previous knowledge about contraception (The knowledge was assessed by simply asking and categorized into well known, some or none) and source of their previous knowledge were recorded. Data on clinical and obstetric characteristics such as venue of delivery, route of delivery and obstetric complications were obtained.

Then, the participants were randomized into 2 groups: Group 1 as a controlled group (n=43) – received a standard contraceptive counseling within 48 hours postpartum, bedside at postpartum ward, Group 2 as an intervention group (n=43) – received one time session of additional antenatal contraceptive counseling, individually, in a private room at family planning clinic for about 15minutes. The participants were given the information about contraception methods (including: subdermal implant (implanon®), injection contraception (DMPA), intrauterine device (IUD), oral contraceptive pills, male condom, tubal sterilization and lactational amenorrhea method), advantages and disadvantages of each methods. The participants were also discussed about their concern and their intention of postpartum contraception was also collected immediately after the counseling session. In this group were also given standard contraceptive counseling at postpartum period.

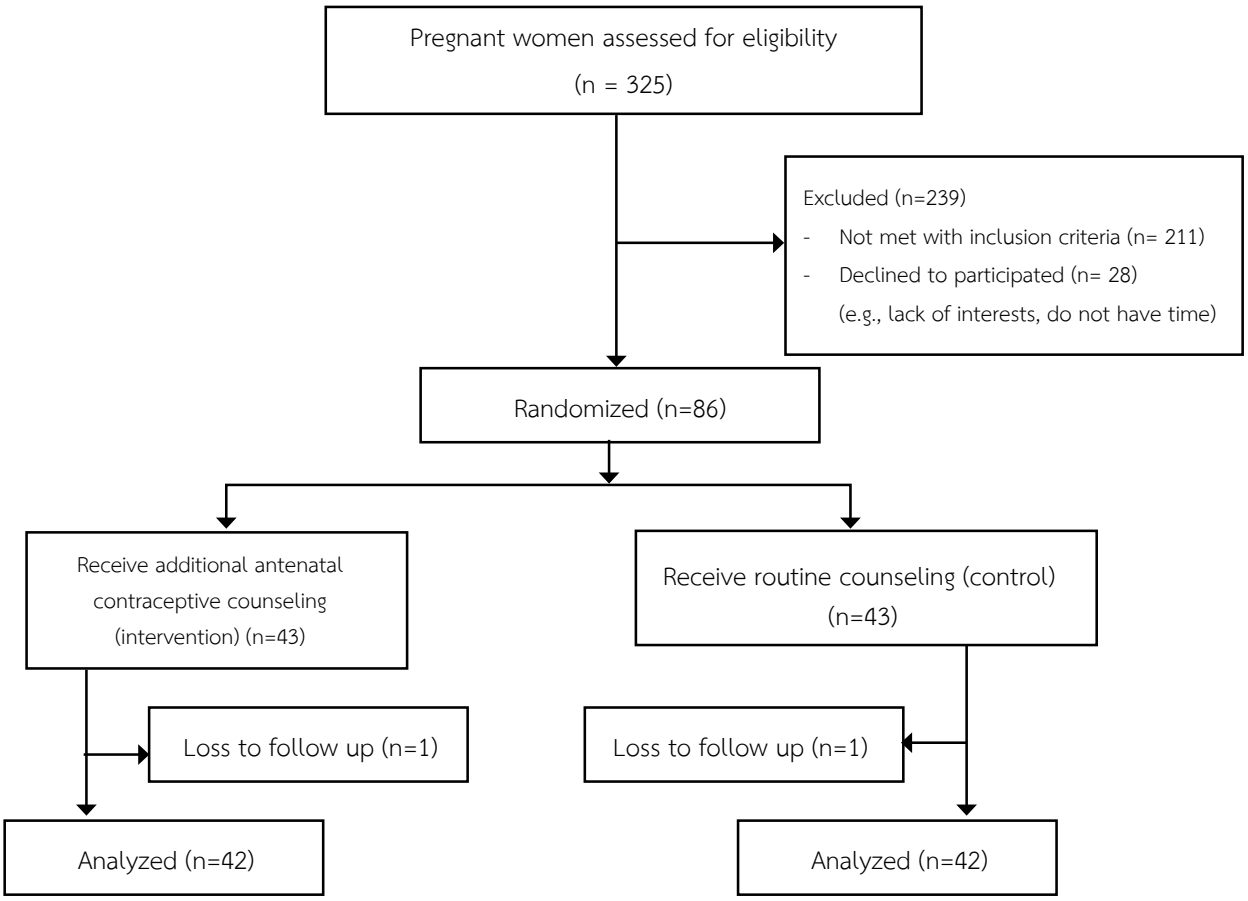
At 4 weeks postpartum, the outcome of the pregnancy and complications were gathered. The contraceptive methods used by participants were collected by telephone which were categorized to LARC used and non-LARC used. The reason on their chosen method and influencing person of their decision made were also collected.

Sample size was calculated by using the differences of p-value on LARC used from previous study by Kaewkiattikun K[9] with power of 80% and type I error at 5%. In addition to 10% for drop out, sample size per group was 43. The data was analyzed with SPSS version 21.0 (SPSS Inc., Chicago, IL, USA). Descriptive statistics were described using number (percentage), mean (standard deviation), and median (interquartile range). Continuous data was tested for their distribution using Kolmogorov-Smirnov test. Comparisons in characteristics between two groups were performed using chi-square test and Fisher's Exact for categorical data. Student t test and Mann-Whitney-U test for normally and non-normally distributed continuous data. A p-value of <0.05 was considered statistically significant.

Results

This study took place since February to October 2020, during this period a total number of 86 pregnant women whom were compatible with the inclusion criteria and agreed to participate. The participants were randomly assigned to receive standard postpartum contraceptive counseling as control group (n=43) or receive additional antenatal counseling as intervention group (n=43). Contraception used at 4 weeks postpartum was follow up, there were one person in each group that was loss follow up (could not contact by given phone number), result in 42 participants per group to finally analyzed as shown in flow of participants (Figure.1)

Figure 1 Enrollment, randomization, and follow-up of the study participants



Baseline characteristics of participants in intervention and control groups such as age, religion, occupation, education, income, marriage status, gestational age at enrollment, gravidity, parity, abortion, number of antenatal care (ANC) attended and ANC places attending were not significantly different as shown in Table 1. The data shows that only 39.5% of the participants were intentionally planned on this pregnancy and 74.4% was reported at least one contraceptive method used – which mostly were the oral contraceptive pills (47.7%). The majority of the pregnant women (73.3%) have some knowledge about contraception, acknowledged from school.

Table 1 Baseline characteristics of the adolescent pregnant women (N=86)

	Total (n=86)	Intervention (n=43)	Control (n=43)	p-value
Age (years)	18 (16,19)	18 (16,19)	18 (17,19)	0.193
Religion				1.000
- Buddhist	85 (98.8)	42 (97.7)	43 (100)	
- Christian	1 (1.2)	1 (2.3)	0 (0.0)	
Occupation				0.236
- Student	20 (23.3)	13 (30.2)	7 (16.3)	
- Own business	21 (24.4)	8 (18.6)	13 (30.2)	
- Housewife	1 (1.2)	0 (0.0)	1 (2.3)	
- None	44 (51.2)	22 (51.2)	22 (51.2)	
Education				0.791
- Primary school	12 (14.0)	6 (14.0)	6 (14.0)	
- Lower secondary school	34 (39.5)	15 (34.9)	19 (44.2)	
- High school	23 (26.7)	12 (27.9)	11 (25.6)	
- Vocational school	17 (19.8)	10 (23.3)	7 (16.3)	
Income (Baht per month)	0 (0,5000)	0 (0,5000)	0 (0,5000)	0.351
Status				0.202
- Married	80 (93.0)	38 (86.4)	42 (97.7)	
- Divorced	5 (5.8)	4 (9.3)	1 (2.3)	
- No provided information	1 (1.2)	1 (2.3)	0 (0.0)	
Gestational age at enrollment	34 (31,37)	33 (31,36)	34 (32,39)	0.338
Gravidity	1 (1,1)	1 (1,1)	1 (1,1)	
Parity	0 (0,0)	0 (0,0)	0 (0,0)	
Abortion	0 (0,0)	0 (0,0)	0 (0,0)	
Last pregnancy (years)	0 (0,0)	0 (0,0)	0 (0,0)	
Number of antenatal attending	6 (5,8)	6 (5,8)	6 (4,8)	0.763
Antenatal place attending				1.000
- Sunpasitthiprasong Hospital	23 (26.7)	11 (25.6)	12 (27.9)	
- Community hospital	53 (61.6)	27 (62.8)	26 (60.5)	
- Private clinic	3 (3.5)	1 (2.3)	2 (4.7)	
- Outside Ubonratchathani	7 (8.1)	4 (9.3)	3 (7.0)	
Intended to become pregnant	34 (39.5)	21 (48.8)	13 (30.2)	0.078
Have planned for subsequent pregnancy	20 (23.3)	12 (27.9)	8 (18.6)	0.307
Interval of planned subsequent pregnancy (years)		5 (3.25,5.75)	4.5 (2.25,5)	0.892
Previous contraception used (any method)	63 (73.3)	28 (65.1)	35 (81.4)	0.080
Previous condom used	21 (24.4)	7 (16.3)	14 (32.6)	0.079
Previous oral contraceptive pills used	41 (47.7)	19 (44.2)	22 (51.2)	0.517
Previous emergency pills used	11 (12.8)	6 (14.0)	5 (11.6)	0.747

Table 1 Baseline characteristics of the adolescent pregnant women (N=86) (ต่อ)

	Total (n=86)	Intervention (n=43)	Control (n=43)	p-value
Previous contraceptive injection used	3 (3.5)	1 (2.3)	2 (4.7)	1.000
Previous subdermal implant used	3 (3.5)	1 (2.3)	2 (4.7)	1.000
Previous intrauterine device used	1 (1.2)	1 (2.3)	0 (0.0)	0.314
Previous knowledge				0.278
- None	16 (18.6)	5 (11.6)	11 (25.6)	
- Some	63 (73.3)	34 (79.1)	29 (67.4)	
- Well known	7 (8.1)	4 (9.3)	3 (7.0)	
Source of knowledge				0.416
- School	34 (48.6)	19 (50.0)	15 (46.9)	
- Hospital	17 (24.3)	8 (21.2)	9 (28.1)	
- Family	11 (15.7)	5 (13.2)	6 (18.6)	
- Friends	4 (5.7)	4 (10.5)	0 (0.0)	
- Self-education (Internet)	4 (5.7)	2 (5.3)	2 (6.3)	

Note: Data in the table are given as or number (percentage) and median (interquartile range) for categorical and continuous variables, respectively. Chi-square test was used to compare categorized data. Mann-Whitney-U test was used to compared non-normally distributed continuous variables

The pregnancy outcomes were shown in Table 2. Preterm labor is the complication occurs most in both of the groups 16.3% and 11.9% in intervention and control groups, respectively, with no significantly different (p>0.05). The delivery hospital and route of delivery are also similar.

Table 2 Pregnancy outcome between intervention and controlled group (N=84)

	Total (n=84)	Intervention (n=42)	Control (n=42)	p-value
Obstetric complications				
Preterm delivery	12 (14.1)	7 (16.3%)	5 (11.9%)	0.563
Death fetus in utero	1 (1.2)	0 (0.0%)	1 (2.4%)	0.494
Postpartum hemorrhage	7 (8.2)	5 (11.6%)	2 (4.8%)	0.433
Pregnancy induced hypertension	9 (10.6)	4 (9.3%)	5 (11.9%)	0.738
Venue of delivery				0.628
- Sunpasitthiprasong Hospital	75 (89.2)	37 (88.1)	38 (92.7)	
- Community hospital	7 (8.4)	3 (7.1)	4 (9.3)	
- Hospital outside Ubonratchathani	2 (2.4)	2 (4.8)	0 (0.0)	
Route of delivery				0.816
- Normal delivery	52 (61.9)	25 (59.5)	27 (64.3)	
- Operative vaginal delivery	10 (11.9)	6 (14.3)	4 (9.5)	
- Cesarean section	22 (26.2)	11 (26.2)	11 (26.2)	

Note: values in the table are given as number (percentage). Chi-square test was used to compare categorized data.

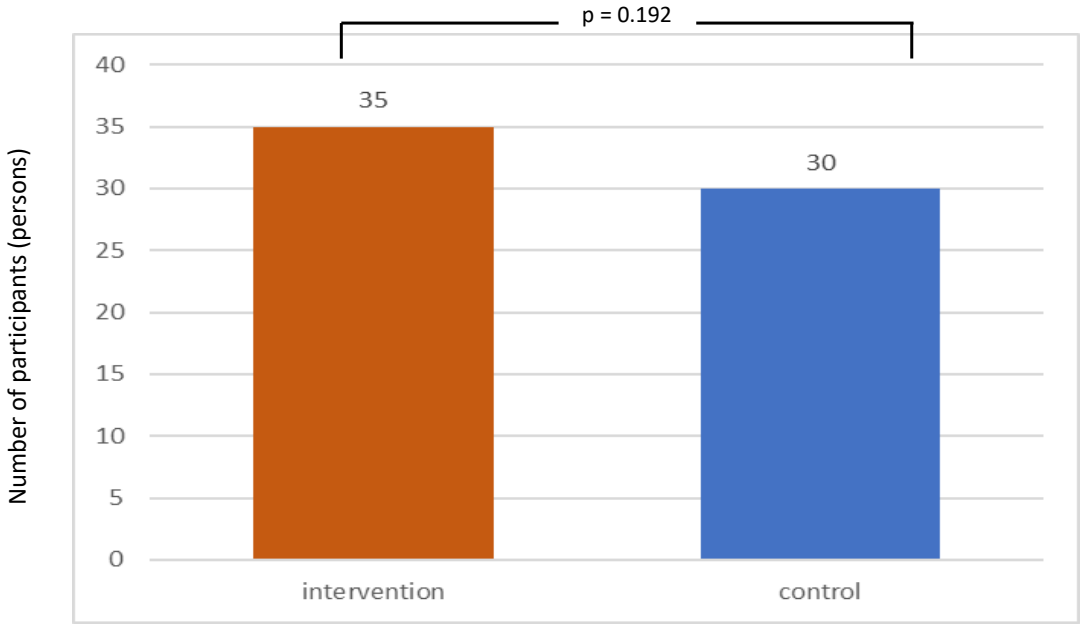
Contraception method at 4 weeks postpartum chosen by the pregnant women was presented in Table 3. 57.1% of all participants were selected subdermal implant (Implanon®) as their postpartum contraception, follow by DMPA injection (19.0%), pills (14.3%), no contraception used (8.3%) and abstinence (1.2%). When categorized in to LARC and non-LARC used the proportion is higher in intervention group but not statistically significant (71.4% versus 83.3% in control versus intervention group, p=0.192) as demonstrated in Figure 2**.**

Table 3 Contraception used (N=84)

	Total (n=84)	Intervention (n=42)	Control (n=42)	p-value
Contraception chooses at 4 weeks				0.504
- None	7 (8.3)	2 (4.8)	5 (11.9)	
- Abstinence	1 (1.2)	0 (0.0)	1 (2.4)	
- Oral contraceptive pills	11 (13.1)	5 (11.9)	6 (14.3)	
- Contraceptive injection	17 (20.2)	8 (19.0)	9 (21.4)	
- Subdermal implant	48 (57.1)	27 (64.3)	21 (50.0)	
Person of influence on decision making				0.395
- Self-decided	52 (61.9)	29 (69.0)	23 (54.8)	
- Parents	10 (11.9)	4 (9.5)	6 (14.3)	
- Partner	2 (2.4)	0 (0.0)	2 (4.8)	
- Healthcare providers	20 (23.8)	9 (21.4)	11 (26.2)	

Note: values in the table are given as number (percentage). Chi-square test was used to compare categorized data.

Figure 2 Number of long-acting reversible contraception used at 4 weeks postpartum in the intervention and control groups



Most of this study participants reported that they are self-decided about their contraception used (61.9%), follow influence by healthcare providers (23.8%), parents (11.9%) and partner (2.4%) respectively, which found no differences between the groups. The reasons of the adolescent pregnant women in this research to choose LARC as contraception is long acting, highly effective, convenience and free of charge. Whereas the reasons not to choose LARC is afraid of pain when applicated, spotting, have bad experiences, inconvenience, weight gain and not currently stay with partner. These reasons were already listed as number and percentages in Table 4.

Table 4 Reasons of Long-acting reversible contraception use and non-use

Reason to use (n=65)		**Reason not to use (n=19)**	
Long acting	34 (52.3)	Pain	8 (42.1)
Highly effective	16 (24.6)	Spotting	4 (21.1)
Free of charge	8 (12.3)	Inconvenience	3 (15.8)
Convenience	7 (10.8)	Bad experience	2 (10.4)
		Weight gain	1 (5.3)
		Not currently with partner	1 (5.3)

Note: values in the table are given as number (percentage).

Subgroup analysis of factors that might affected the decision on LARC used was demonstrated in Table 5. There were no differences in postpartum LARC used between current pregnancy intention and – whether they intended to be pregnant or not it did not affect their thoughts on contraceptive method. Likewise, in previous contraception used group – whether they have ever used contraception or not it did not affect current contraception. Conversely; there is a significant different in LARC used at postpartum among the intention on next pregnancy group, women that have certain plan for next pregnancy had chosen LARC when received antepartum counseling as postpartum contraception method more than women that have not decided their next pregnancy yet. ($p = 0.036$)

Table 5 Subgroup analysis of factors effecting LARC use in adolescent pregnancy

	Total	Intervention	Control	p-value
Intended to get pregnant in current pregnancy (n=33)				
- Use LARC	25 (75.8)	16 (80.0)	9 (69.2)	0.681
- Do not use LARC	8 (24.2)	4 (20.0)	4 (30.8)	
Previous contraception used (n=63)				
- Use LARC	50 (79.4)	25 (89.3)	25 (71.4)	0.119
- Do not use LARC	13 (20.6)	3 (10.7)	10 (28.6)	
With Intention to have subsequent pregnancy (n=19)				
- Use LARC	16 (84.2)	12 (100.0)	4 (57.1)	0.036
- Do not use LARC	3 (15.8)	0 (0.0)	3 (42.9)	

Note: values in the table are given as number (percentage). Chi-square test was used to compare categorized data. LARC=long-acting reversible contraception

Discussion

From a natural behavior of adolescent, they tend to start interesting in contraception used when they become sexually active[10], the easiest and most convenience choice is condom, which sometimes they denied using it because it might interrupt their sexual activity. So, another popular method is hormonal contraception – which require more information to obtain an effective use. A proper counseling should be provided to all teenage populations – especially in teenage pregnant women to prevent them from subsequent pregnancy too early.

In this randomized controlled trial study, there were more adolescent mothers that have chosen LARC as postpartum contraception in the group that received additional antepartum contraceptive counseling, but not statistically significant. In the other hand, when using subgroup analysis, shows that giving additional antepartum counseling was most effected in women who have certain plan on subsequent pregnancy**.** This is straightforward explained – if the participants have "certain" plan they tends to pay more attention about the information given to choose the applicable plan for themselves, while in subgroup of participants that do not have any plan for their next pregnancy may think about the long-acting contraception way too distance from themselves.

There are many reviews that giving educational intervention about contraception are unquestionable to improve the knowledge**,** but might not clearly effective enough to encourage the usage of contraception; depending on multifactor such as timing and style of the counseling**.**[11]

A Cochrane review[12] about education for contraceptive use by women after childbirth. They have reviewed and analyzed studies that give contraceptive education as intervention that start at postpartum only, found that half of the interventions could lowered the rate of repeated pregnancy and increased the rate of contraception used.

One study from Zapata LB, et al[13] assessed associations between prenatal, postpartum, and both prenatal and postpartum contraceptive counseling with the use of effective contraceptive methods; found that women that had been counseling for both time periods use more effective contraception than others group. Which is similar to the intervention in our study that received both prenatal and postpartum counseling. The study also found out that the greatest benefit of receiving counseling during both time periods was observed for women with no insurance before pregnancy compared with those privately insured, because underinsured person, in general, access health care services less frequently. This might be the reason why our study did not share the significant increase in LARC user as this study because our health care is easier to access and do not cost as much as developed countries – the patient might revisit for contraception service after postpartum period.

Our study shares the same objectives as one multicenter study took places in Scotland, South Africa and China about giving contraceptive counseling antenatally[14] the participants were reported that they found the opportunity to discuss contraception antenatally but eventually resulted in not improving the contraception rate. Especially in one centered, they found that in the young maternal age and low socioeconomic area were the groups that have had lost to follow up (implicated that they didn't use any contraception) most**.** Same as in another study from Uganda[15] about antenatal contraceptive counseling effects on postpartum contraception, found interesting information that a high number of postpartum women have intention to use modern contraception but still not actually using it. Since the study took place in considered less-developing country, they said that biggest barrier to family planning used might not be education but a limited health facility including contraception. Unlike in Thailand, the national policy has provided many contraceptive choices for free; such as condom and subdermal implant. By the way, in setting of rural as community hospital might have some other problem like transportation making them not so convenience to reach the facilities provided.

Meanwhile, comparing with the study from Thailand[9], this study has the similarity to our study in the aspect of target population and intention focus on improve the rate of LARC as contraception, the study shows that there is an increase rate of LARC used when giving contraceptive counseling immediate postpartum – which already considered a standard counseling in our study, this may refer to why percentage of LARC used in our study is already in quite a high proportion. So, giving additional antepartum counseling in our study might improve the LARC usage but not effective enough to make a significant difference**.**

This study design is a randomized control trial with and intention-to-treat analysis, these could consider as a reliable internal validity, with least confounding factors as possible. The target

population of this study was adolescent pregnant women which are most beneficial from LARC used, which there were not many previous researches that have studied specifically in this population. By the way, our study still has many limitations. First, since this study is an educational intervention, it is impossible to blind both patients and education giver – this is not quite considered causing bias in analysis process because the researcher did not involve in contraception advisor to postpartum women. Secondly, the contamination between groups is possible since we could not prevent all the participants from given information to each other this might cause lowering the knowledge gap between group, and the study population is quite in a small area and small sample size (perform only in Ubonratchathani province) this affecting the result of the study. Thirdly, this study was an intention to treat analysis, the actual number of participants that used to analyzed the results could not achieved the number that calculated in sample size in the first place due to some of participants loss to follow up and limited of study period. Expanding the sample size might improve the result and show the true effect of intervention**.** Lastly, the education given in this study is to acknowledge every possible contraceptive method, with advantages and disadvantages of every method and give rights to the patient to choose the method themselves with no persuasion. So, this might be excessively information for the participants causing them not focusing on LARC method and one of the reasons why this educational intervention did not increase rate of the LARC used.

There are no differences in rate of LARC used in adolescent pregnancy whether they receive antenatal contraceptive counseling or not. Except in subgroups that have certain plan on next pregnancy that tends to used LARC as postpartum contraception more than those who have not planned.

Long acting is the most reason for teenage pregnant women to choose LARC as postpartum contraception, while pain is the most reason not to choose LARC**.**

Conflicts of interest

The authors declare no conflicts of interest.

References

1. Aung EE, Liabsuetrakul T, Panichkriangkrai W, et al. Years of healthy life lost due to adverse pregnancy and childbirth outcomes among adolescent mothers in Thailand. AIMS Public Health 2018;5:463-76.
2. World Health Organization. Adolescent pregnancy: Issues in adolescent health and development. Geneva: WHO;2018. [cited 2020 Mar 07] Available from: https://www.who.int/news-room/fact-sheets/detail/adolescent-pregnancy.
3. Preterm Birth. In: Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL et al. eds. Williams Obstetrics. 25th ed. Newyork: McGraw-Hill Education, 2018: 803-34.
4. Thailand UNICEF. Situation analysis of adolescent pregnancy in Thailand. Bangkok; 2015. [cited 2020 Mar 07] Available from: https://www.unicef.org/thailand/media/1126/file/Situation%20Analysis%20of%20Adolescent%20Pregnancy%20in%20Thailand.pdf.
5. Department of Health. Adolescent pregnancy 2019 situation. Nonthaburi: Ministry of Public health; 2018. [cited 2020 Feb 07] Available from: https://rh.anamai.moph.go.th/th/cms-of-1.
6. Committee Opinion No. 539: Adolescents and long-acting reversible contraception: Implants and intrauterine devices. Obstet Gynecol 2012;120:983-8.
7. Health MoP. National Policy and Strategic Development in Reproductive Health. 2019.
8. Krans EE, Davis MM, Schwarz EB. Psychosocial risk, prenatal counseling and maternal behavior: findings from PRAMS, 2004-2008. Am J Obstet Gynecol 2013;208:141. e1- e7.
9. Kaewkiattikun K. Effects of immediate postpartum contraceptive counseling on long-acting reversible contraceptive use in adolescents. Adolesc Health Med Ther 2017;8:115.
10. Jaccard J, Levitz N. Counseling adolescents about contraception: towards the development of an evidence-based protocol for contraceptive counselors. J Adolesc Health 2013;52:S6-S13.
11. Yee L, Simon M. Urban minority women's perceptions of and preferences for postpartum contraceptive counseling. J Midwifery Womens Health 2011; 56:54-60.
12. Lopez LM, Grey TW, Hiller JE, et al. Education for contraceptive use by women after childbirth. Cochrane Database Syst Rev 2015.
13. Zapata LB, Murtaza S, Whiteman MK, et al. Contraceptive counseling and postpartum contraceptive use. Am J Obstet Gynecol 2015;212:171. e1- e8.
14. Smith K, Van Der Spuy ZM, Cheng L, et al. Is postpartum contraceptive advice given antenatally of value? Contraception 2002;65:237-43.
15. Ayiasi RM, Muhumuza C, Bukenya J, et al. The effect of prenatal counselling on postpartum family planning use among early postpartum women in Masindi and Kiryandongo districts, Uganda. Pan Afr Med J 2015;21:138.

Effect of antenatal contraceptive counseling on patients' decision in long-acting reversible contraceptive: A randomized controlled trial study in adolescent pregnancy at Sunpasitthiprasong Hospital

Hataiporn Lamlertpanya[1] Pranee Satthathum[1], Parinya Chamnan[2]

Received: March 28, 2025 Revised: July 3, 2025 Accepted: July 15, 2025

Abstract

Objectives: To study the effect of antenatal contraceptive counseling on decision of long-acting reversible contraception (LARC) used in adolescent pregnant women

Materials and methods: Randomized controlled trial included 86 pregnant women less than 20 years old who came to antenatal care clinic at or more than 28 weeks of gestation. The participants were randomly assigned to two groups: 1) intervention group received additional one by one antenatal contraceptive counseling for 15 minutes in a private room, alongside with standard contraceptive counseling at postpartum period or 2) controlled group received routine postpartum counseling. The primary outcome is postpartum contraceptive use, and the secondary outcome is factor influencing the use of contraception were evaluated at 4 weeks postpartum.

Results: There was no significantly difference of LARC used in adolescent pregnant women who received additional antenatal contraceptive counseling compared with control group (83.3% VS 71.4% in intervention and control group, p=0.192). Most pregnant women (61.9%) chose their contraceptive methods by themselves. First three common reasons to use LARC as a contraception were long-acting, highly effective and convenience. First three common reasons to choose non-LARC were afraid of pain, spotting and have had bad experiences about using LARC.

Conclusion: There are no differences in decision of LARC used in adolescent pregnancy whether they receive additional antenatal contraceptive counseling or not.

Keyword: Adolescent pregnancy, Contraception, Long-acting reversible contraception, antenatal contraceptive counseling

[1] Department of Obstetrics and Gynecology, Sunpasitthiprasong Hospital

[2] Department of Social Medicine, Sunpassithiprasong Hospital.

Corresponding author: Pranee Sathathum, M.D. Department of Obstetrics and Gynecology, Sunpasitthiprasong Hospital, 122 Sappasit Road, Tambon Nai Muang, Ampur Muang, Ubonratchathani 34000, Thailand. E-mail: topgauze@gmail.com