

Original Article

Preferred postpartum contraception methods and their practice among married women in Zanjan, Iran

Haleh Rahmanpour,¹ Seyed Nouraddin Mousavinasab,² Seyed Nejat Hosseini,³ Alireza Shoghli⁴

Department of Obstetrics and Gynecology, Vali-Asre Hospital,¹ Department of Social Medicine,^{2,4}
Department of Surgery, Ayatollah Mousavi Hospital,³ Zanjan University of Medical Sciences, Zanjan, Iran.

Abstract

Objectives: To explore the preferences of women; once at the time of delivery and then three months later, in using contraceptive methods during post partum period.

Methods: A sample of 575 women who gave birth during July 2007 and February 2008 in Vali-Asre teaching hospital of Zanjan, were recruited and interviewed once after delivery and then three month later. The interview questions included demographic characteristic and questions assessing the tendency of mothers to use the contraceptives they preferred at time of delivery and three months later.

Results: According to 537 (93.4%) of interviewed mothers, they intended using at least one contraceptive after getting discharged from the hospital. This figure dropped to 438 (76.1%) three months after delivery. Women who expressed the desire to use minipill after delivery were 169 (29.3%). However this value rose to 187 (32.2%) three months later. The difference was not statistically significant. There was significant relationship between type of contraceptives used and women's age, number of children, place of residence and level of education three months following delivery.

Conclusion: Results suggest that health care must focus extensively on giving necessary information and consultation to pregnant women also their partners to help to improve selection of most favourite and safe method of contraception (JPMA 60:714; 2010).

Introduction

Selecting appropriate contraceptive is a major concern in postpartum period. Pregnancy and child bearing may change a woman's sex behaviour and use of preferred contraceptive method.

Physicians and midwives pay little attention to preferences and attitudes of women in post partum period. Postpartum period is very crucial as it is marked by psychological changes and stabilization of hormones. Therefore, it is risky both for the mothers and their partners to

use unfavourable contraceptives. Thus, providing effective, high quality prenatal and postpartum contraceptive counseling can reduce unintended pregnancies, decrease maternal and foetal morbidity and mortality, and prevent abortions.¹ In postpartum period choosing a contraceptive depends on many factors including cultural issues, literacy, time of resuming sexual activity after delivery, the infant feeding choice and using a temporary versus a permanent method.^{2,3} Unintended pregnancy can bring about unfavorable health consequences for the newborn. For instance, delays in obtaining early prenatal care (sometimes associates with delays in pregnancy recognition). Also women suffering unintended pregnancy are less likely to take vitamins and consequently have an increased risk of a neural tube defect in their foetus. Infants born by women who are not prepared for pregnancy are more likely to be of low birth weight, premature and/or small for gestational age. Finally, an unintended pregnancy can have long-term negative health implications for the infant. In this sense the risk of unintended pregnancy can be minimized by the regular and appropriate use of contraception.⁴

While the suppressive effect of lactation on ovarian function is well established and it can provide contraceptive effect, this effect is altering and not reliable for every woman.⁵ Women are aware of the diminished risk of pregnancy during the period of postpartum amenorrhea. This perception, plus believing that modern methods of contraception are "strong" and potentially damaging to health, can result in women being reluctant to adopt family planning methods soon after birth, despite a desire to avoid closely spaced pregnancies.¹

Family planning may be improved if clinicians are aware of woman's knowledge, needs and expectations.² Majority of women especially in urban areas do not refer to public health centers after delivery so data about postpartum contraception use is limited. Therefore the aim of this study was to determine the most widely preferred contraception methods at the time of delivery and after 3 months.

Subjects and Methods

This was a descriptive study in which 575 postpartum women who had delivered healthy babies were selected using a convenient sampling method between July 2007 and February 2008 at Vali-Asre teaching hospital of Zanjan, Iran. Vali-Asre Hospital is the main referral center for delivery in Zanjan province and includes about 50% of all cases of the province. Selected women were interviewed after delivery and also three month later. Of the total, 25 women were excluded from the study because we could not access them 3 months after delivery. Prior to interview a voluntary written consent form was signed by each of the interviewees. The interview questions included demographic characteristics such as age, number of children, place of residence (urban/rural), educational status (illiterate, primary school, high school and

higher education degree) and their preferred contraceptive at the time of delivery and three months later. The significance differences were calculated using Chi-square and Fisher exact test. P-Values less than 0.05 considered significant. All analyses were performed using SPSS 11.5.

Results

Out of the 575 women enrolled in this study, 101 (17.6%) were less than 20 years age, 326 (56.7%) between 20 to 30 years and 148 (25.7%) were over 30 years. With respect to the level of education, 91 (15.8 %) were illiterate, 291 (50.6%) studied till primary school and 193 (33.6%) completed high school and higher education degree. Women bearing only one child were 287 (49.9%), 213 (37.1%) had two to three children and 75 (13%) had more than three children. Of the studied cohort 185 (32.2%) women resided in urban area. Women committing to the use of at least one contraceptive after delivery were 537 (93.4%). This figure fell

Table-1: The intention of married women about contraception methods, and their practice in Zanjan (July 2007 - February 2008).

Contraception method	Favorite* N (%)	Use after 3 month N (%)	P-value
Minipill	169(29.3)	186 (32.3)	0.27
IUD	144 (25)	69 (12)	<0.0001
PPTL	95 (16.6)	84 (14.6)	0.63
Depo-Provera	49 (8.5)	32 (5.6)	0.05
OCP	47 (8.2)	0	<0.0001
Condom	22 (3.8)	57 (9.9)	<0.0001
Vasectomy	11 (1.9)	9 (1.6)	0.652
Withdrawal	32 (5.6)	117(20.3)	<0.0001
No method	6(1)	21 (3.6)	-

N= number, * some of women had more than one favorite.

to 438 (76.1%) within three months following delivery. The most preferred contraceptive used by women after delivery, were Minipill by 169 (29.3%) mothers and Intra Uterine Device (IUD) by 144 (25%) mothers (Table-1). All mothers continued regular breast-feeding after three months. The results showed significant relationship between the type of contraceptives used and women's age, number of children, place of residence and educational status.

Overall, minipill was the most commonly used contraceptive by the mothers. There was significant relationship between mothers' age with the use of minipill and Tubal Ligation (TL) (P<0.0001). Use of minipill was more common in mothers with less than 30 years of age whereas postpartum TL was more common amongst women who were 30 years of age or older (Table-2).

According to the findings, a higher level of education determined an increased use of condoms (P=0.003) and the decreased preference of TL (P<0.0001).

Using minipill (P<0.0001), condom (P = 0.014),

Table-2: Type of contraceptive methods after 3 month of delivery and demographic and characteristics of mothers in Zanjan (July 2007 - February 2008).

Variable	N	Minipill (%)	IUD & Depo-Provera (%)	PPTL (%)	Vasectomy (%)	Condom (%)	Withdrawal (%)	No Method (%)	
Age:	<= 20	101	42 (41.5)	25(24.8)	0	0	10(9.9)	22(21.7)	2 (2)
	21 - 30	326	118 (36.2)	56 (17.2)	22 (6.7)	6 (1.8)	39(11.9)	74 (20.5)	11(3.4)
	30+	148	26(17.5)	20 (13.6)	62(41.9)	3 (2)	8(5.4)	21 (12.8)	8 (5.4)
Education	Illiterate	91	21 (23.1)	11 (12.1)	36(39.5)	1 (1/1)	4(4.4)	14 (15.4)	4 (4.4)
	Primary	291	116(39.8)	53 (18.2)	31(10.6)	0	23(7.9)	60(20.6)	8 (2.7)
	high school higher education	93	33 (35.5)	16 (17.2)	7(7.5)	0	11(11.8)	22 (23.6)	4 (4.3)
No of children	1	287	116 (40.4)	46 (16.1)	0	0	39(13.6)	75 (26.1)	11 (3.8)
	2 & 3	213	61 (28.6)	48 (22.5)	35(16.4)	7 (3.3)	17(8)	35 (16.4)	10 (4.7)
	4 and more	75	9 (12)	7 (9.3)	49(65.4)	2 (2.7)	1(1.3)	7 (14.6)	0
Residence	Urban	185	38 (20.5)	32 (17.3)	35(8.6)	8 (23.2)	29(15.7)	34 (18.3)	9 (4.9)
	Rural	390	148 (37.9)	69 (17.7)	49(8.6)	1 (12.8)	28(7.2)	83 (21.3)	12 (3.1)

withdrawal ($P=0.031$), Depo-Provera and IUD (0.022) were decreased indirectly by number of children.

Minipill intake was significantly common among rural interviewed women as compared to use of condom in urban populace ($P<0.0001$).

Findings indicated that twenty six (34.7%) of 75 women with four children and more did not intend to postpartum TL and their reasons for this were being afraid of TL complications (10 women), not having their husband's permission (9 women), intending to have a son or daughter which they did not have (4 women), age less than 30 years (2 women) and intention for having more children (1 women).

Discussion

The study revealed that 537 (93.4%) of the interviewed mothers admitted to the use of at least one contraceptive after delivery. This percent fell to 438 mothers (76.1%) three months later. Although information about contraception use in postpartum period in Iran is limited but according to DHS 2000 in Iran 74% of married women used pregnancy control methods out of which 56% used modern contraceptives.⁶ The percent was 62.9% out of 79% of married women in Zanjan according to the Integrated Monitoring Evaluation System Survey (IMES) in 2005.⁷ The results of this study are compatible with a previous IMES report.

Mazloomly et al revealed that, 66.4% of women used effective contraceptive methods in Iran (2005).⁸ Salway et al¹ in Bangladesh showed that women seldom begin contraception soon after birth and most of them breast feed for an extended period. The latter study suggested that contraception immediately after delivery was inappropriate and postpartum strategies should incorporate lactation amenorrhoea and teach women about breast feeding's impact on fertility. In a study by Egbuonu et al⁹ in Nigeria 31.6% of the women had resumed sexual activity six weeks post delivery. This figure rose to 93.6% at six months. With the

resumption of sexual activity only 5% of the mothers resorted to contraceptive practices at six weeks other than lactation amenorrhoea and this increased to 54% at six months.⁹

Bulut et al¹⁰ in Istanbul showed that within five months after delivery, 86% of the women were using some forms of family planning method. The most common method used was coitus interruptus, which continued till the resumption of menses. IUD was used by 34% after resuming menses. Some couples used both the withdrawal and the IUD methods in combination. They suggested lactation amenorrhoea method (LAM) to augment the withdrawal method.

In a study by Barber in Mexico,¹¹ 47% women used a modern contraceptive method. Women who received family planning advice during prenatal care were more likely to use a contraceptive method than those who did not receive such advice (Odds ratio: 2.2). Women who received family planning advice was more to use condoms (Odds ratio: 2.3) and IUD (Odds ratio: 5.2), and of undergoing sterilization (Odds ratio: 1.4).

According to this study Oral Contraceptives Pills (OCP) was the most preferred method amongst 47 women but after three month none of them reported its use, as OCPs was not advised to mothers with infants less than 12 months age in Iranian health centers. WHO states that the use of combined OCP by breastfeeding women during postpartum (1.5 to 6 months) has probably more side effects comparing with its advantages. Hence the "use of combined oral contraceptives during breastfeeding diminishes the quantity of breast milk, decreases lactation duration and may thereby adversely affect infant growth. However, the combined pill has advantages over the progestin-only pill. It has fewer side effects (such as irregular bleeding), more efficacy and higher continuation rates. One major problem of mothers in postpartum period is irregular uterine bleeding and prescription of OCP can improve it. In a study estimating providers' practices in prescribing hormonal contraception to breastfeeding women, it was

concluded that the majority (70%) of providers prescribe progestin-only contraceptive methods to this group within the first 6 weeks after child birth.¹²

The study showed that use of certain contraceptive methods three months after delivery correlated with mother's age, number of children, level of education and residence. Minipill was the most commonly used contraceptive. Norouzi reported that, coitus interruptus was the common contraception amongst women who delivered 6 months before, in Isfahan-Iran.¹³

Contraception use during postpartum period may be improved if a record of the mother's knowledge, preferences and needs is maintained. In this study postpartum TL was most preferred by women above 30 years of age with more than three children, thus the rate of vasectomy was low. This indicates that men have little desire to participate in using contraceptive methods. Communication between partners and with family planning providers is an important component of contraceptive use. In general 30 percent of couples depend on methods requiring male cooperation.¹⁴ Also the number of female sterilization procedures far outweigh vasectomies in the world. In many developing countries, vasectomy is particularly rare. However, vasectomy can be carried out under local anaesthesia and may also be an acceptable option in places where female sterilization procedures cannot be performed under safe conditions. It can also provide an acceptable option for many couples where hormonal contraceptives and alternative longer-acting contraceptives are unavailable. Increasing awareness about vasectomy by media campaigns in developing countries has been shown to increase the acceptance of this method. Hence, during the post-pregnancy period, the male contraceptive methods (condoms, vasectomy) are appropriate for breastfeeding women since these methods do not affect breast milk. In order to improve the situation, health education on family planning and breast feeding should also involve the husband and taking into account local socio-cultural features.¹⁴

Depineres et al¹⁵ in New Mexico revealed that women aged ≥ 35 years, unmarried and lacking a postpartum visit have an increased risk of no postpartum contraception.¹⁵

Duong et al¹⁶ evaluated contraception practice amongst women residing in rural regions of North central Vietnam. The proportion of contraceptive users at week 16 and 24 after delivery were 17% and 43% respectively of which 57% used IUD, 25% used condoms and 14% used traditional methods, 24 weeks post delivery.¹⁶ In this study 73% of the interviewed women were residing in rural areas however, their contraceptive methods usage was the same as that of urban area. This indicates that modern contraceptive methods are easily accessible to them. Usage of permanent methods in rural area was less than urban. This may be due to the willingness of having more children. According to a study by Blumenthal et

al¹⁷ in the adolescent group, those who chose Norplant Implants one year after delivery had discontinued this method to a lesser extent than those who chose other methods and concluded that Norplant implants were an acceptable and effective contraceptive for these postpartum and post abortal teens. Due to abnormal uterine bleeding Norplant is not used in Iran. In a study by Thurman et al on postpartum teens it was shown that the mothers who receive Depo-Provera have significantly lower chance of repeated pregnancy within one year of delivery compared to teens who choose OCP or the contraceptive patch.¹⁸ Nevertheless the clinicians are concerned about Depo-Provera's association with the loss of bone especially during adolescence because in this period bone density increases rapidly. But it is not clear whether adolescents have a greater risk for osteoporosis compared with women who use Depo-Provera.¹⁹

This study showed that 17.6% of women less than 20 years age preferred Minipill (41%), IUD (16%) and Depo-Provera (7.9%) respectively. In several studies it was suggested that contraception should be integrated in to maternity care programmes and it can improve the family planning status.^{1,9-11} Smith showed that contraception counseling delivered antenatally appeared to have no impact on pregnancy rate during the first year after childbirth and it had very little effect on contraceptive use.²⁰

Conclusion

The differences between the preferred contraception methods and their use three months following delivery indicates women's lack of knowledge about postpartum contraception methods. Relying on breastfeeding as a safe measure to prevent pregnancy may lead to unintended childbearing without spacing. It is therefore suggested that health care providers should focus more on giving necessary information and consultation to pregnant women and their partners to improve their choice of preferable and safe contraceptives.

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