Effect of Antenatal Counseling on Postpartum Family Planning among Women Attending Family Medicine Units in 6th of October City

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Abstract

Background*:** Antenatal counseling provides an important opportunity to improve maternal understanding of postpartum family planning and good opportunity to make an appropriate choice of postpartum family planning method. ***Objectives*:** To measure the degree of satisfaction from antenatal family planning counseling and to identify its relation to PPFP adoption among women attending family medicine centers in 6th October city. ***Methods: A Cross sectional study was conducted on 384 married women in reproductive age attending three randomly selected family medicine centers. They should be healthy married women in reproductive age and having at least one living child not less than one-year old. Women with history of primary or secondary infertility and repeated abortion were excluded. Data were collected through an interview questionnaire including socio-demographic data and reproductive history, family planning method used in the postpartum period, for her at least one year old child and antenatal counseling about post-postpartum family planning done in her pregnancy in her previous one year old child**.** Proper postpartum family planning is defined as use of contraception within 40 days after delivery with continuation for at least one year after delivery of the last child.

***Results*:** There is statistically significant relationship between antenatal counseling service provision and use of PPFP methods among studied women P<0.05, and found that family health center number (1) had the highest preformation regarding antenatal counseling services provision (75.4%), antenatal counseling sessions regarding PPFP mentioned by (67.7%), two thirds of studied women (65.0%) were satisfied regarding antenatal counseling session and doctors providing the counseling as mentioned by 40.8% of participating women. **Conclusion:** There is a statistically significant relationship between adequate antenatal family planning counseling and use of PPFP methods.

Key words: *Postpartum, Family planning, Antenatal counseling.*

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Introduction

Family planning (FP) is an essential component of health care provided during the antenatal period, immediately after delivery or during the first year after delivery[1]. FP by definition; is deciding the number and spacing of children; through the use of

contraception: such as abstinence, natural planning, or hormonal birth control[2]. Family planning services for postpartum women require unique physiological considerations as postpartum women experience amenorrhea, or the absence of menses for varying lengths of time and their fertility can return before menses resumes even when breastfeeding[3]. Postpartum family planning (PPFP) programs also must understand the clinical safety standards applied to different contraceptive methods across the 12-month period following birth as the risk of child mortality with increased likelihood of chronic undernourishment, stunted growth. Infant mortality is highest for very short birth-to-pregnancy intervals (<12 months). As pregnancy occurring within six months of the last delivery holds a 7.5-fold increased risk for potentially unsafe induced abortion and a 1.6-fold increased risk of stillbirth[4] added to the fact that in Egypt, according to (EDHS) 2014, around 3 in 10 contraceptive users stop using the method within 12 months of starting use [5] .

To improve postpartum family planning, through first year postpartum we need to integrate family planning counseling into antenatal and postpartum care services as it offers a number of potential benefits when presented as a component of maternal and child health services. Women who receive antenatal counseling during a facility stay after delivery are more likely to use contraceptives in the postpartum period [6], and the improved ability of providers to make a more comprehensive assessment of women's reproductive health needs and to respond to those needs will improve health outcomes[7] . Contraceptive counselling, given according to the needs of couples during routine prenatal care visits, especially in the third trimester, might increase the use of postpartum contraception[8].

Women can be provided with information about the importance of PPFP and the range of methods available [9]. Counseling of contraception can become part of any antenatal visit but becomes more important for method selection as woman approaches term, brief talks about PPFP can be provided in clinic waiting rooms.

The main problem - according to a study done in Assiut and Sohag is that although 70 percent of pregnant women receive antenatal care, only 12 percent of physicians and 7 percent of nurses provide counseling on birth spacing during these visits[10,11] The present study addresses the quality of antenatal family planning counseling and its relation to adoption of contraception starting immediately after delivery and remaining for at least one year thereafter. This study was conducted to measure the degree of satisfaction from antenatal family planning counseling provided to pregnant women attending family medicine centers and to identify the relationship between antenatal counseling and PPFP adoption.

Material and Methods:

A Cross sectional study was conducted on 384 married women in reproductive age attending three (3) randomly selected family medicine centers in 6th October city. Participating women should be healthy married females in reproductive age and having at least one living child at least one-year old. Women with primary or secondary infertility or history of repeated abortion were excluded. A Sample of 384 women was recruited from the three family medicine centers. The sample was calculated using Epi-info 7.1 program assuming that the degree of adequate

satisfaction among pregnant females is 50% [12], at a confidence level of 95% and a width of 15%.

Participants was recruited from three randomly selected family medicine centers, in a systematically random way along a period of 4 months and at a schedule of two days visits to the center per week. On average a maximum of twelve (12) women could be interviewed in each visit. Sampling interval was calculated by dividing the total legible women attending the center the day before (data gathered from the center register) by 12. Women were selected in a systematic way using the ticket number. Sampling interval changed from 7 to 8 along the period of the data collection according to the daily total number of legible women attending the centers.

Participating women were asked about the starting date, type of contraceptive method and duration of postpartum family planning adoption after the last child and if they received antenatal counseling about the PPFP method used during the last pregnancy antenatal care visit through a structured interview questionnaire.

The questionnaire included (1) Sociodemographic data (e.g. couple's age, couple's educational level, occupation, etc.) and detailed reproductive history (number of pregnancies, number of abortions, number of boys and girls). (2) History of PPFP method use for one year after child birth. (3) Receiving antenatal counseling about post-natal family planning, including "Importance of spacing", " time of regaining fertility after delivery ", " Conditions where breast feeding is effective", "barriers of FP method use "," Side effect of FP methods use "and "Who provide the counseling to pregnant woman?".

The counseling assessment tool included 6 questions related to women counseling satisfaction, scoring system ranged from (0-2); 2= Yes, 1= Yes, but, not enough, 0= No, for each of the items mentioned before, and the total satisfaction score is 12. A score equal to or more than 60% indicates adequate satisfaction and lower than 60% indicates inadequate satisfaction.

Ethical consideration:

Ethical Approval was obtained from faculty of medicine Ain Shams University ethical committee. An oral informed consent was obtained from all participants in the study. The used questionnaire was anonymous and confidentially of data was assured as none was allowed to see the data except the authors of this study.

Administrative approval from the director of the 6th district family medicine and the heads of the 3 centers, where the data had been collected, has been obtained.

Data management and Statistical analysis: Data collected was revised and validated then introduced to a PC for statistical analysis using SPSS package for windows (Statistical Package for Social Science) program version 20, SPSS Inc., Chicago, Illinois, USA

Results:

The current study involved more than half of studied women (59.4%) between 25-35 years with a mean age of 30±6.4. The majority (82.8%) were non pregnant at the time of the interview. Less than half of them achieved an intermediate education (44%) and more than two third were house wives (78.9%).

About 44% of studied women had 3-4 pregnancies with a mean parity of 3.2±1.4 and about half of the study participants (50.8%) had ≤ 2 live children with a mean number of 2.7±1.4 live births. The majority (85.2%) had an equal number of girls and boys children.

Concerning socio-demographic characteristics of husbands, 46.9% of husbands achieved an intermediate education, the majority of them were skilled worker (81.5%) and half of them (50.5%) had an average income (between 1000 and 1999 EP).

The present study shows that there is a statistically significant difference between different studied centers regarding the rate of antenatal counseling service provision ranging between 49.5% and 75.4%, (table 1).

More than two thirds of studied women (67.7%) were exposed to antenatal counseling sessions regarding PPFP. Among those who had antenatal counseling more than two thirds of the participants (range 60.0% - 75.8%) mentioned that they had adequate counseling regarding" importance of spacing", "time of regaining fertility after delivery", "situations where breastfeeding could be used as FP method". Less percentages of women (range 44.6% - 50.0%) mentioned that they had adequate counseling about " barriers to FP method use"," various types and indications of FP methods use" and "side effects of FP methods ".

More than two thirds of studied women (65.0%) reported adequate satisfaction (satisfaction score ≥60%) regarding antenatal counseling session, where their mean satisfaction score was (8.67±2.9), (table 2).

Concerning who provided the antenatal contraception counseling, 40.8% of women mentioned that doctors were responsible for antenatal counseling provision followed by Raedat refyat (32.7%) and nurses (26.5%), (figure 1).

A statistically significant relationship between adequate antenatal counseling service provision and use of PPFP methods was elucidated among the participating women ($p<0.05$), (table 3).

Discussion:

In the present study center number (1) had the highest performance regarding antenatal counseling services provision followed by center (2) and the least was center (3). This can be justified by the seminars about family planning provided twice weekly by Al Raedat al refyeat for all the attendants of the center in addition to routine antenatal counseling sessions by doctors and nurses in center (1). These activities are done in other centers but at a lower rate.

The current study shows that more than two thirds of studied women were exposed to antenatal counseling sessions regarding PPFP. Chicago by Colbert, Munroe et al. 2014 [9] reported that 77.1% of low-income postpartum women at an urban academic medical center had received antenatal contraceptive counseling, in contrary, a study done in Eastern Ethiopia by Nigussie ,Girma et al. 2016 [13] revealed that only one quarter of study participants had antenatal counseling.

PHC units in Egypt play important role to improve family planning services provision and especially antenatal counseling to insure that women start family planning as early as possible after delivery and before returns of fertility.

In current study more than two thirds of studied women (65.0%) were satisfied regarding antenatal counseling session. Teshome, et al. 2017[14] in Ethiopia, affirmed that women were more likely to express a high level of satisfaction regarding antenatal contraception counseling (95.7%). Difference in assessment tool could explain the difference in the rate of satisfaction.

On other side, Pricilla, David et al. 2016 [15] in an urban area in India, mentioned that the satisfaction was poor (31.8%) regarding the health

education concerning family planning in antenatal services. Different factors can affect the degree of satisfaction. It was speculated that mothers who are satisfied with the service are more likely to adopt family planning and contraception.

A strong relationship was elucidated between antenatal counseling and postpartum family planning among studied women ($p<0.05$). These findings are in accordance with a study conducted by Soliman, 1999[16] in Maternity hospital in Mansoura which figure out the impact of antenatal counseling on couples' knowledge and practice of contraception, provided immediately after delivery and three months later. Counseling sessions did improve couples' knowledge and practice in the study group .

Antepartum contraception counseling has been shown to increase postpartum use of contraception by adult women in study conducted by Zapata, Murtaza et al. 2015[17]

However, in Uganda[18] prenatal home visits and counselling on postpartum contraception did not affect utilization of modern contraceptives. Different sociodemographic factors and doctor-patient relationships could contribute to the failure of postpartum family planning after a well designed antenatal counseling program.

Conclusion:

There is a statistically significant relationship between antenatal counseling service provision and use of PPFP methods among studied women and the doctors were the main source for giving the antenatal counseling about PPFP

Study Limitations

This study was conducted on a sample of women that may not represent the targeted population of Egyptian women allover he country. Sociodemographic factors may play a role on the response and the degree of satisfaction evaluated by this group of women. Recall bias regarding the exact time of initiation and duration of use may partially affect the validity of PPFP determination as defined in the study.

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Table (1) Antenatal counseling services provision in the three studied family centers as mentioned by participating women (n=384)

Family health center	Antenatal counseling				Sig.
	Yes		No		
	N	%	N	%	
Center (1)	175	75.4%	57	24.6%	**X^2**=21.985 **P<0.001****
Center (2)	34	69.4%	15	30.6%	
Center (3)	51	49.5%	52	50.5%	

**highly statistically significant p<0.001

Table (2) Antenatal counseling and satisfaction regarding postpartum family planning among studied women (n=384):

Variables		N	%
Antenatal counseling	**Yes**	260	67.7
	No	124	32.3
Participants had antenatal counseling about PPFP(n=260)			
Importance of spacing	**Yes**	197	75.8
	Yes. But, not enough	53	20.4
	No	10	3.8
The time of regaining fertility after delivery	**Yes**	175	67.3
	Yes. But, not enough	67	25.8
	No	18	6.9
Conditions of using breast feeding as FP method	**Yes**	156	60.0
	Yes. But, not enough	71	27.3
	No	33	12.7
Health care provider inquired about barriers of FP method use	**Yes**	118	45.4
	Yes. But, not enough	87	33.5
	No	55	21.2
Get enough information regarding various types and indications of FP methods use	**Yes**	130	50.0
	Yes. But, not enough	90	34.6
	No	40	15.4
Side effect of FP methods	**Yes**	116	44.6
	Yes. But, not enough	95	36.5
	No	49	18.8
Participants' satisfaction regarding antenatal counseling	**Satisfaction ≥ 60%**	169	65.0
	Dissatisfaction<60%	91	35.0
Antenatal counseling satisfaction score	**Mean ± SD**	8.7±2.92	
	Maximum score	12	

Table (3) Relation between quality of antenatal counseling service provision in the last pregnancy and use of Postpartum family planning method among participating women (n=384)

		Adequate Antenatal Counseling				Sig.
		Yes		No		
		N	%	N	%	
Postpartum family planning	**Yes**	139	53.5%	52	41.9%	X^2 =4.462 **P**=.035*
	No	121	46.5%	72	58.1%	

* Statistically significant at P<0.05

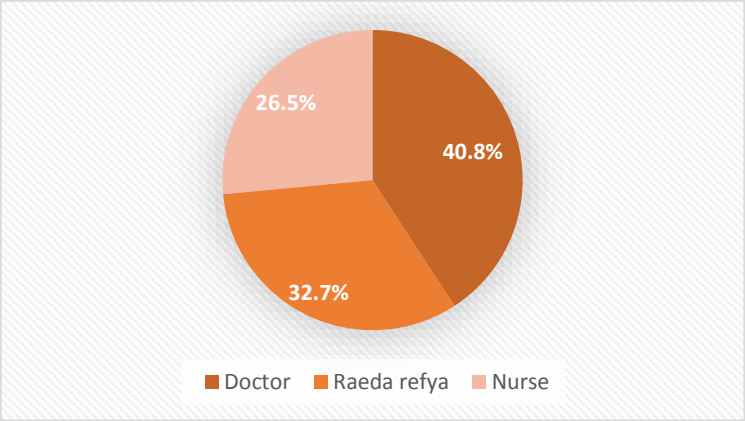

Figure (1) Health care providers responsible for FP counseling sessions as mentioned by the studied women (n=260)