

Effectiveness of Contraceptive Counseling: Prime Practices to Ensure Quality Communication and Enable Effective Contraceptive Use

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ABSTRACT

Background: Effectiveness is the leading characteristic for most women when choosing a contraceptive method, but they often are not well-informed about the effectiveness of the methods. Because of the serious consequences of misinformed choice, counseling should proactively discuss the most effective methods—long-acting reversible contraceptives and permanent methods—using the WHO tiered-effectiveness model. **Methods:** One hundred twenty-six postpartum women in the age group of 16-35 years, requesting contraception, were enrolled in the study at Rajendra Nagar Hospital & IVF Centre, Lucknow from February 2018 to December 2019. Meticulous contraception counseling was administered using a definitive protocol with comprehensive education material on the available contraceptive methods. Questions were explored about the information on the women's pre- and post-counseling choice of contraceptive method, her perceptions and the reasons behind her post-counseling decision were filled by the participating women. **Results:** Maximum women enrolled for the study were in the age group of 22-29 years. In pre-counseling evaluation, 40% postpartum women selected a contraceptive method, 20% a nonhormonal method and 12% a hormonal method. After meticulous contraception counseling, 95% of women chose a contraceptive method. There were significant differences between the women's choices of contraceptive methods in the pre- and post-counseling sessions. **Conclusion:** This study showed that progesterone-only pills (POPs) are the most frequently preferred contraceptive methods among postpartum women followed by inj-DMPA and then IUD. Using standardized protocol, proper and meticulous counseling resulted in a significant increase in selection of contraceptive methods by postpartum women.

Keywords: Postpartum women, contraception counseling, intrauterine device, progesterone-only pills

Family planning in a country like ours is largely dependent on the efforts sponsored by the government. Between 1965 and 2009, contraceptive usage was reported to increase threefold (from 13% of married women in 1970 to 48% in 2009) and the fertility rate was reported to have nearly halved (from 5.7 in 1966 to 2.4 in 2012). The national fertility rate still remains high, raising concerns for long-term population growth. Every year, India adds more people to world population numbers than any other country.¹⁻⁵ Family planning should be a priority in order to restrict the

projected population of 2 billion by the end of the twenty-first century.

In 2015, the total fertility rate of India was 2.3 births per woman.⁶ There were an estimated 15.6 million abortions, with an abortion rate of 47.0 abortions per 1,000 women aged 15-49 years. The rate of unintended pregnancies was 70.1 per 1,000 women aged 15-49 years.⁷ Overall, the abortions in India made up for one-third of pregnancies and out of all pregnancies, almost half were not planned.⁷ On the Demographic Transition Model, India is currently in the third stage owing to a decline in birth rates and death rates.⁸ By 2026, it is projected to enter in stage 4 once the total fertility rate reaches 2.1.

MATERIAL AND METHODS

Subjects

One hundred twenty-six postpartum women in the age group of 16-35 years, requesting contraception, were enrolled in the study at Rajendra Nagar Hospital

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and IVF Centre, Lucknow from February 2018 to December 2019, within 8 weeks of delivery. All the study participants were counseled for hormonal and nonhormonal methods of contraception. The sample size with 80% power was calculated based on the assumption that the survey will detect at least a 25% increase in the proportion of women choosing a method (the more reliable contraceptive methods: progesterone-only pill [POP], injectable contraceptive, intrauterine system [IUS], intrauterine device [IUD]/condoms/lactation amenorrhea) after counseling compared to that before counseling. Underlying assumption was that 25% of women switch from less-reliable contraceptive methods (e.g., withdrawal, fertility-based awareness techniques, improper lactation amenorrhea method) or contraception choice to more-reliable contraceptive methods (e.g., POP, injectable contraceptive, IUD, IUS, condoms/proper lactation amenorrhea) after counseling. The type 1 error probability associated with this test of this null hypothesis was 0.05. The uncorrected Chi-squared statistic was used to evaluate this null hypothesis.

Inclusion criteria

- Postpartum women within 8 weeks of delivery.
- Women who agreed to sign an informed consent form.

Exclusion criteria

- Postpartum women choosing permanent method of contraception (sterilization).
- Postpartum women more than 8 weeks post delivery.

Procedure

The study was reviewed and approved by the ethical committee of Rajendra Nagar Hospital and IVF Centre, Lucknow. Couples were informed about this study. During these meetings, all couples received written information.

Counseling

Counseling was provided using a standardized protocol with balanced and comprehensive education material on the available contraceptive methods. Counseling card for nonhormonal methods was developed specifically for the study. In addition, a questionnaire was prepared to record information on the women's pre- and post-counseling contraceptive choice, and the reasons behind her post-counseling decision. The demographic variables (age, highest educational level, employment status, breastfeeding and number of children) were also included in the questionnaire.

Figure 1 depicts the number of patients enrolled, administered questionnaires and counseled.

Statistical Methods

The contraceptive methods opted for by women in the pre- and post-counseling program was represented as a shift table and was analyzed using McNemar's Chi-square test. Pre- and post-counseling, proportions of women opting for any one of the contraceptive methods were recorded and compared.

RESULTS

One hundred thirty-five women were screened for the eligibility criteria of the study. Of these, 9 were excluded. Major reasons for exclusions were not meeting the study eligibility criteria and not filling the study questionnaire completely. This resulted in a total of 126 eligible women who were included in the final analysis and counseled using hormonal and non-hormonal contraceptive cards. Table 1 summarizes the characteristics of the study participants.

Maximum women enrolled in this study were in the age group of 22-29 years. In pre-counseling, 40% postpartum women selected a contraceptive method. After meticulous contraception counseling, 95% of women chose a contraceptive method. There were significant differences between the women's choices of contraceptive methods in the pre- and post-counseling sessions.

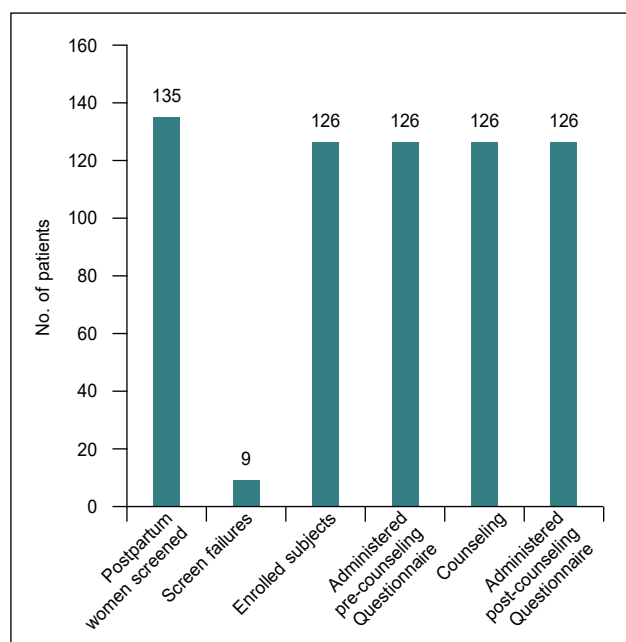


Figure 1. Number of patients enrolled, administered questionnaires and counseled.

Table 1. Characteristics of Participating Women in the Study (n = 126)

Characteristics	Number	%
Education		
Uneducated	10	8
Less than Xth pass	7	6
Xth pass	5	4
XIIIth pass	15	12
Graduate	34	27
Postgraduate	55	44
Employment		
Employed	89	71
Unemployed	12	10
Unplanned pregnancy		
Unplanned pregnancy	30	24
No. of children		
No. of children	3	2
Nil	69	55
One	45	36
Two	25	20
Three and more	28	22
Breastfeeding		
Breastfeeding	27	21
Exclusive breastfeeding	78	62
No breastfeeding	12	10

POPs were found to be the most frequently preferred contraceptive method among postpartum women followed by inj-DMPA and then IUD.

DISCUSSION

The number of unintended pregnancies in India is quite high and these are associated with inadequate birth spacing. The postpartum period is a vital time period to initiate contraception. Closely spaced pregnancies pose several health risks both to mothers and newborns. An analysis of data from the Demographic and Health Survey (DHS) for various years shows that babies born within a period of less than 2 years after the next oldest sibling have a more than twofold increased risk of death in the first year compared with babies born after an interval of 3 years.⁹ Women who have short interpregnancy intervals of less than 6 months were at higher risk of maternal death (odds ratio [OR] = 2.54), third trimester bleeding (OR = 1.73), premature rupture of membranes (OR = 1.72) and anemia (OR = 1.30).¹⁰

Adequate spacing - 24 months from delivery to the next pregnancy - could save the lives of mothers and newborns. Family planning can potentially prevent nearly one-third of all maternal deaths as it allows women to delay motherhood, adequately space births, avoid unintended pregnancies and unsafe abortions, and enables them not to conceive when they have reached their desired family size.¹¹ Surveys conducted on a national level have shown that the adoption of contraceptive methods for spacing has remained low in India, despite the fact that nearly 50% women desire a gap of at least 3 years between two births. National Family Health Survey (NFHS-3) data has shown that among the married women 15-34 years of age, only 20% were using any contraceptive method for spacing. Postpartum contraception is thus important for the reduction of short interval pregnancies, which has a significant contribution to neonatal morbidity and healthcare costs. The variety of contraceptive methods available for postpartum women include hormonal contraception (POP, inj-DMPA), IUD, lactational amenorrhea, barrier contraception, natural family planning and sterilization.

The present study was designed to explore the impact of a balanced and comprehensive structured counseling session on increasing contraceptive acceptability among postpartum women. Several studies have reported the need and utilization of contraceptives in India. However, there is a lack of studies evaluating the impact of contraceptive counseling on the selection of contraceptive methods among postpartum women. A study conducted by Goel et al¹² shows that women who received advice on family planning were had increased odds of adopting postpartum contraception (unadjusted OR = 1.63 p < 0.001) as compared to those who were not advised at all. The hormonal contraceptive methods have been shown to be the preferred contraceptive method selected by postpartum women in India. This complies with the results for India in the world contraceptive use pattern survey.

Contraceptive choices have been found to be affected by counseling sessions, noted by the change in proportion of women opting for a particular method before versus after counseling.

In the present study, structured contraception counseling of an average duration of 30 minutes about various available hormonal and nonhormonal contraceptive methods helped most women to choose a contraceptive method. The effect of counseling on the selection of combined hormonal contraceptive methods in 11 countries has been reported by Yeshaya et al.¹³

The low usage of contraceptives observed in the present study may be linked to the low education status of the postpartum women. This could be associated with the poor accessibility and information among these women regarding the available contraceptive methods. Counseling provided knowledge to these postpartum women regarding the advantages and disadvantages of different contraceptive methods thus assisting them in making well-informed contraceptive choices as per their specifications and requirements. The results of the present study stress upon the significance of communication interventions in educating postpartum women.

CONCLUSION

Meticulous contraceptive counseling has huge potential to enable women, who do not want pregnancy, to choose a method of birth control that can be used consistently over time, thus reducing the incidence of unintended pregnancy. This study showed that POPs are the most frequently preferred contraceptive method among postpartum women followed by inj-DMPA and then IUD.

In order to obtain the benefits of family planning, both at the individual and community levels, all methods of family planning should be extensively available. Provision of the family planning methods must include comprehensive counseling.

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REFERENCES

1. RN Pati. Socio-cultural dimensions of reproductive child health. APH Publishing. 2003. p. 51.
2. Marian Rengel (2000), Encyclopedia of birth control, Greenwood Publishing Group, ISBN 978-1-57356-255-3, ...
3. India and Family Planning: An Overview (PDF), Department of Family and Community Health, World Health Organization, archived from the original (PDF) on 21 December 2009. Retrieved 2009-11-25.
4. Ramu GN. Brothers and sisters in India: a study of urban adult siblings. University of Toronto Press; 2006. ISBN 978-0-8020-9077-5
5. Adlakha A (April 1997), Population Trends: India (PDF), U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census. Available from: <https://www.census.gov/content/dam/Census/library/publications/1997/demo/ib97-1.pdf>
6. "ESTIMATES OF FERTILITY INDICATORS" (PDF). Available at: data.worldbank.org. Retrieved 19 January 2020.
7. Singh S, Shekhar C, Acharya R, Moore AM, Stillman M, Pradhan MR, et al. The incidence of abortion and unintended pregnancy in India, 2015. *Lancet Glob Health*. 2018;6(1):e111-e120.
8. Trends in Demographic Transition in India - General Knowledge Today". Available at: <https://www.gktoday.in/gk/trends-in-demographic-transition-in-india/>
9. Smith R, Ashford L, Gribble J, Clifton D. Family planning saves lives. In: Smith R, Ashford L, Gribble J, Clifton D (Eds.). A Report. Washington, DC: Population Reference Bureau; 2009.
10. Conde-Agudelo A, Belizán JM. Maternal morbidity and mortality associated with interpregnancy interval: cross sectional study. *BMJ*. 2000;321(7271):1255-9.
11. Collumbien M, Gerressu M, Cleland J. Non-use and use of ineffective methods of contraception. In: Comparative Quantification of Health Risks: Global and Regional Burden of Disease Attributable to Selected Major Risk Factors. Geneva: World Health Organization; 2004. pp. 1255-320.
12. Goel S, Bhatnagar I, Khan ME, Hazra A. Increasing postpartum contraception in rural Uttar Pradesh. *J Fam Welf*. 2010;56:57-64.
13. Yeshaya A, Ber A, Seidman DS, Oddens BJ. Influence of structured counseling on women's selection of hormonal contraception in Israel: results of the CHOICE study. *Int J Womens Health*. 2014;6:799-808.



Better Oral Hygiene Associated with Lower Diabetes Risk

A large retrospective study published online in *Diabetologia* has suggested that frequency of tooth-brushing was associated with risk of new-onset diabetes. Among 188,013 individuals followed for a median of 10 years, individuals who brushed three or more times a day were 8% less likely to develop diabetes (hazard ratio [HR] 0.92, 95% CI 0.89-0.95, $p < 0.001$), compared to those who brushed less frequently. Having periodontal disease escalated diabetes risk by 9%, and having many missing teeth - 15 or more - increased the risk by 21%.