

A Questionnaire Study on the Knowledge, Attitude, and the Practice of spacing among Postpartum Women in SAT Hospital, Trivandrum

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ABSTRACT

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Context: A cross sectional study was conducted among willing mothers coming to Immunization clinic in SAT Hospital, Trivandrum, who had not undergone permanent sterilization.

Objective: To assess the knowledge, attitude and practice of these mothers towards spacing. The secondary objectives were to explore factors influencing their decision and also to assess the service of JPHN in providing them with prenatal counselling.

Materials and Methods: Non probability sampling done to select 100 samples between January 2017 to March 2017. Questionnaire in Malayalam was administered by the interviewer. Data analysis was done using SPSS software. Descriptive procedures like percentages and analytical procedures like Chi-square ratios were done.

Results: The mean age of women was 26.74 years. There were 6 cases where age of marriage was less than 18 years. 79% of women and 52% of their husbands had education past high school. 51% of the women were below poverty line and 61% were primi-paras. 71% were housewives and 40% of the husbands were skilled workers.

70% of women were aware of at least one modern spacing method, though only 52% of them were sure of its correct use. Level of knowledge was maximum regarding intrauterine devices (Cu-T).

Though 87% felt the need for spacing of 3-5 years between pregnancies, only 12% were willing to adopt any modern spacing method. In 57.5% of cases, the decision was taken by the woman herself. The most common reason for not using spacing methods was fear of side effects (50.6%). 21.8% faced hindrance from husband and relatives.

The most commonly used spacing method was intrauterine devices (72.7%). Nine women said they would want to terminate an unplanned pregnancy in the future.

Only 7% had received antenatal counseling about spacing from health professionals. Out of 95 women who were registered with their PHC, 29.5% were visited by the JPHN less than 3 times during their pregnancy period. On Chi-square analysis, statistically significant relationship was found between awareness and socioeconomic status ($P = 0.003$), awareness and parity ($P = 0.009$), knowledge and education of women ($P = 0.040$), use and occupation of women ($P = 0.041$), knowledge and use ($P = 0.000$).

Conclusion: The study stresses the huge knowledge- attitude-use gap among women and the unmet need for spacing. Even among highly educated women, myths regarding side effects of contraceptives still do exist. Proper prenatal counseling is the key to overcome this huge gap.

Keywords: Spacing of Pregnancies, Factors Influencing Spacing of Pregnancies, Service of JPHN for Prenatal Counselling

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INTRODUCTION

More than half a million women die each year as a result of complications related to pregnancy and child-birth in developing countries across the world. Short birth intervals are one of the important social factors that influence maternal mortality.

Short birth intervals are associated with higher rates of fetal, infant and child mortality. In developing countries,

children who are born after a birth interval of less than two years are, on an average, twice as likely to die in infancy as are children born after a long interval. It also adversely affects the child's survival for at least the first four years of life.

Studies have shown that short inter-pregnancy intervals can result in low birth weight, preterm birth and small size for gestational age. There is also greater risk of bleeding in pregnancy, anemia and increased risk of

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maternal mortality. It has long been known that a child who is shortly followed by another suffers the consequences of short spacing. Indeed the name of the serious nutritional disease “kwashiorkor” originates from Ghana, where it means the sickness of a suckling child when the next one is conceived.

A time interval of six months or more after finishing breastfeeding is recommended for the mother to rebuild her nutritional status before becoming pregnant again. To avoid the adverse effects associated with closely spaced births, medical guidelines recommend the uptake of a family planning method by six weeks postpartum.

Available studies¹ demonstrate that the chances of infant and maternal survival would be 2.5 times higher with birth intervals of 3-5 years as with intervals of 2 or fewer years. In this context, postpartum period is very important. According to NFHS-3, spacing between two childbirths is less than the recommended period of 3 years in 61% of births in India.

Family planning method use in India leans heavily towards methods that limit fertility. The latest NFHS shows that 77% of sterilized women did not use a family planning method before sterilization.

The Indian Family Planning Program, during the 1970s and 1990s emphasized sterilization and set targets for the number of procedures. As a consequence, the name Family Planning Program became associated with sterilization. Despite changing its name to Family Welfare Program and removing the target approach, the program has not been successful in educating people about advantages of inter pregnancy spacing or the use of contraceptive method for spacing births.

The contraceptive methods available for spacing are barrier methods (female and male condoms), intrauterine devices (Cu-T-380, Progestasert), hormonal methods (Oral Contraceptive Pills, DMPA injections and implants) and post-conceptual methods (Medical Termination of Pregnancy). Emergency contraceptive pills (ECP) are also available.

The advantage of barrier methods like male condoms is that it is easy to use, safe, and easily available, has no side effects and is disposable. Male condoms also provide protection against sexually transmitted diseases. However, condoms have a failure rate is high. The Pearl Index is 3-15. Moreover, the use of male condoms depends entirely on the discretion of the male. Many of them fail to use it regularly, or do not use it carefully.

There are 3 generations of Intra uterine Devices. The first generation devices like Lippes Loop were non medicated. The second generation IUD had copper added to it, which made it possible to make them smaller and more effective. Of the second generation IUD, the most commonly available is the CuT 380A. This is effective for about 10 years. Third generation IUDs are hormone releasing IUDs. Progestasert, LNG-20 are examples. These are more effective, but are also expensive. The failure rate is only 0.5-0.8%. The most common side effects are bleeding, and pain. IUD insertion requires a motivated female.

Among hormonal contraceptives are oral pills and depot formulations.

Oral pills include combined pill, progestogen only pill (POP), and Post Coital or Emergency Contraceptive Pills. Combined pills contain ethinyl estradiol and progesterone. The commonly available formulations are Mala-N and Mala-D. these pills need to be taken for 21 days, starting from the 5th day of menstrual cycle. Theoretically, the failure rate is lowest for OCP. However, it depends on the correct usage by the woman.

Emergency Contraceptive Pills are available commercially and may also be delivered by ASHA or JPHN on demand. These pills need to be taken within 72 hours of unprotected sexual intercourse.

Oral contraceptives have cardiovascular and metabolic side effects in the long run. They tend to increase blood pressure, blood sugar and the lipid profile. There is possible association between OCPs and cervical cancer. Other common side effects include gain in weight, breast tenderness, headache, migraine, and bleeding tendencies. This form of contraception is therefore not recommended for those above 35 years. However, it is can used effectively by young women to space pregnancies.

Injectables are DMPA Injections, which is taken once in three months. It has side effects similar to OCPs. Sub dermal implants include Norplant. These have the lowest Pearl Index. However, these are expensive and beyond the scope of poor women.

Natural family planning methods include Basal body temperature method, cervical mucus method and symptothermic method and lactational amenorrhea. However, these methods demand a lot of discipline and understanding, which may not be expected from everyone. The Pearl Index for these are the highest, 6-26.

Condoms, Intrauterine copper device Cu-T-380A, Oral Contraceptive Pill Mala-N are available free of cost through subcenters and higher levels. In our hospital, a tertiary care center, these are supplied free of cost. Options like DMPA injections and implants are also available, though not free of cost. ECPs are also available on demand through subcenters and higher levels.

Although contraceptive methods are available for free through the public health system, promotion of spacing methods is not considered important by health workers. Counseling about spacing methods is time consuming and providers must work against the myths and misconceptions. The apparent lack of decision-making power about contraceptive use among young women makes providers view this counseling as futile.

Many women who are sexually active would prefer to avoid becoming pregnant, but are not using any method of contraception. Thus, there is an unmet need for family planning.

Among the most common reason for unmet need are inconvenient services, lack of information, fears about contraceptive side effects and opposition from husband and relatives.

OBJECTIVES

The primary objective was to assess the knowledge, attitude and practice of postpartum spacing among the mothers who attend the Immunization clinic of SAT Hospital, Trivandrum.

Secondary Objectives:

- To explore factors influencing their decision.
- To assess the service of Junior Public Health Nurse (JPHN) in prenatal counseling regarding spacing.

METHODOLOGY

Study design

Cross sectional study design was chosen.

Study population

The study population selected included the mothers who attend the Immunization Clinic of SAT Hospital, Trivandrum. All of these women had completed six weeks postpartum. The women who have recently delivered are of proven fertility, and are at risk to become pregnant again rapidly. Also six weeks postpartum, these women would also have had a chance of

interval IUD insertion.

The study excludes women who accepted permanent sterilization methods since it limits their fertility. Those who were not willing to participate were also excluded from the study.

Sample size and Sampling Technique

In a previous study⁶ conducted in rural India, the prevalence of knowledge about contraceptives was found to be 50%.

Using this in the formula $4PQ/L^2$ we calculated the sample size to be 100. (where P= 50%, L= 20% of P)

Non probability sampling was done.

Data Collection

A semi structured questionnaire was prepared in Malayalam.

The interviewer approached the mothers, explained to them about the study, and asked for their consent. Then the questionnaire was administered to the subjects by the interviewer.

The data collection was done over a period of 2 months.

Study variables

- Demographic factors: (table 1)
 - Age of the subject and husband
 - Age at marriage of subject
 - Education of subject and husband
 - Occupation of subject and husband
 - Religion
 - Socioeconomic status
 - Parity
- Attitude towards spacing
- Awareness of contraceptives used for spacing
- Knowledge about contraceptives used for spacing
- Practice of spacing
- Reasons for not practicing
- Registration with Primary Health Centre
- Visits by JPHN
- Prenatal counselling about spacing

Definition of Terms

Attitude towards spacing: If the woman mentions that the ideal birth interval between two births is

between 3-5 years, then she is taken to be having the right attitude towards spacing.

Awareness: If the subject could name at least one modern contraceptive method that can be used for spacing, she is taken to be aware.

Knowledge: A subject knew the correct usage of at least one modern contraceptive method was taken to be knowledgeable.

Practice of spacing: A subject who uses any modern contraceptive for spacing was practicing spacing. Subjects were also asked if they had used any contraception previously also.

Modern contraceptive methods for spacing include condoms, Intrauterine devices, Oral Contraceptive Pills, Emergency Contraceptive Pills, DMPA Injections.

Data Analysis

The data collected was entered into MS Excel. It was then analyzed using statistical analyzing software Statistical Package for Social Science (SPSS).

Quantitative variables were expressed as means and standard deviations. Qualitative variables were expressed as proportion. Statistical significance was assessed using Chi Square tests.

RESULTS

Mean (SD) age of women was 26.74 (4.788) years.

Mean (SD) age at marriage was 22.45 (3.580) years.

In this study, there were 6 cases where marriage had occurred at less than the legal age of 18 years. It was found that 5 of these were of low socioeconomic status.

AWARENESS AND KNOWLEDGE

In this study, the spouses of the women interviewed had used condoms at least once before. So we have excluded male condoms from our further results.

Table 1. Demographic details of women studied	
Demographic details	Percentage of women (n=100)
Past 10th standard	Women 79% Husbands - 52%
BPL	51%
Primipara	61%
Occupation of women	71% housewives
Religion	54% Hindus, 20% Muslims, 16% Christians

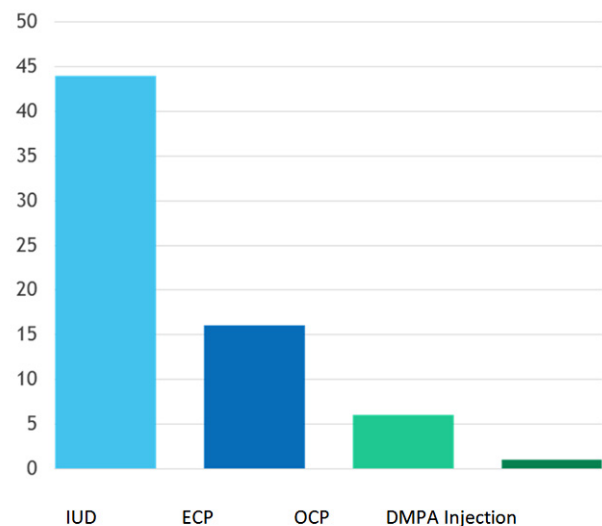


Figure 1. Pattern of knowledge of spacing methods (n=100)

We found that 70% of the women could name at least one modern contraceptive that can be used for spacing. So, 70% had awareness.

However, only 52% of women were sure about its correct use.

From **figure 1**, it is seen that the most well-known was Intra uterine devices (44%). There were 16 women who had knowledge about Emergency Contraceptive Pills. Only 1 person out of the 100 knew about DMPA Injection.

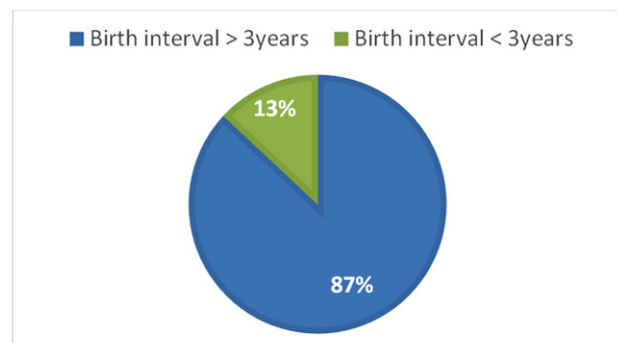


Figure 2. Attitude toward spacing (n=100)

ATTITUDE & PRACTICE

87% of the women felt that there should be a gap of 3-5 years between consecutive pregnancies (**figure 2**).

But when asked if they were using any non-barrier method of contraception for spacing, only 12% answered in the affirmative (**figure 3**)

87.2% of the multigravida had never used a contraception before.

From **figure 4**, 75% of those who are using a non-

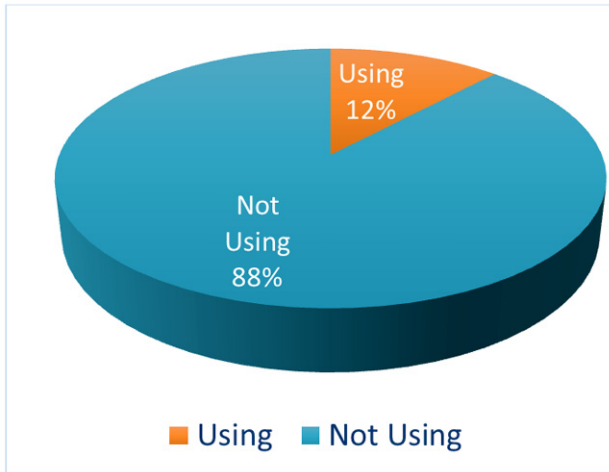


Figure 3. Practice of spacing (n=100)

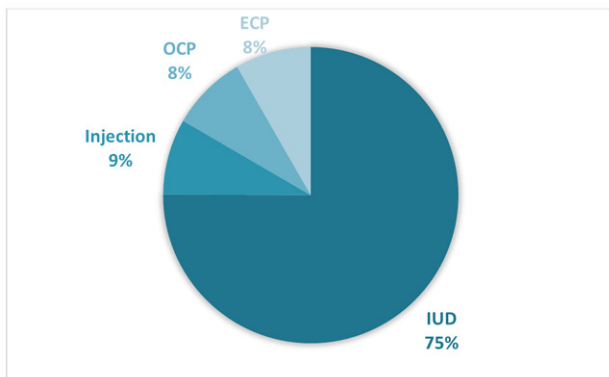


Figure 4. Pattern of Use (n=100)

barrier method of contraception were using IUD. Only 9% were using injections. 8% used Oral Contraceptive Pills and 8% used Emergency Contraceptive Pills.

In our study, 9 women (10.3% of those not using) did not want to continue another pregnancy.

SERVICE OF PHC

95% of the women were registered with their local Primary Health Centre.

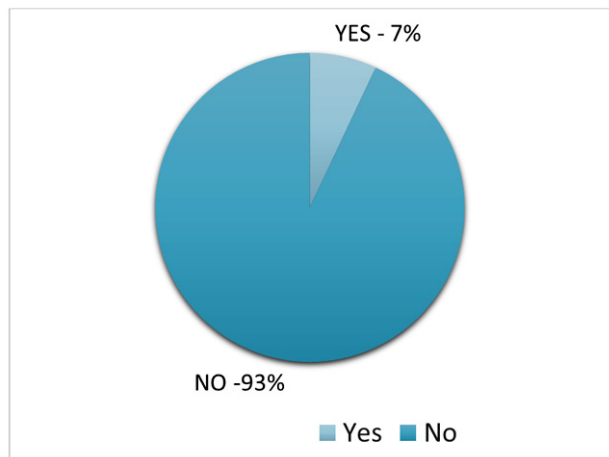


Figure 5. Percentage of women who received prenatal counselling (n=100)

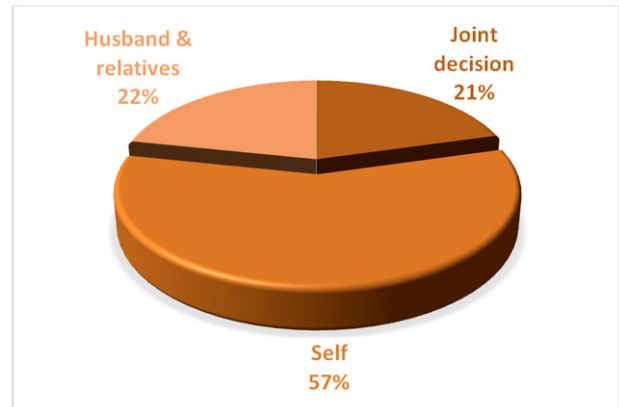


Figure 6. Decision making (n=100)

In 29.5% of the study subjects told that they had had less than three antenatal visits by the JPHN.

Out of this, 24.7% of the subjects were contacted only through the phone, and had not been seen directly by the JPHN.

When asked if they had received antenatal counseling from the JPHN about spacing, only 7% women acknowledged having received counseling. 93% of women had received no such counseling (table 5)

NEGATIVE ATTITUDE

From figure 6, we see that among those who are not using contraceptives for spacing, the decision to not use came from the woman herself in 57% of cases. About 22% women faced hindrance from husband and relatives. Only 21% of couples had discussed it among themselves and taken a mutual decision.

About 51% of women were not using spacing methods due to fear of side effects. About 18% felt that it was not necessary. 23% told that they did not want to use any contraceptives as they lacked right knowledge about them. Only 8% of them preferred to use natural family planning methods (figure 7)

None of the study subjects complained about lack of availability or accessibility.

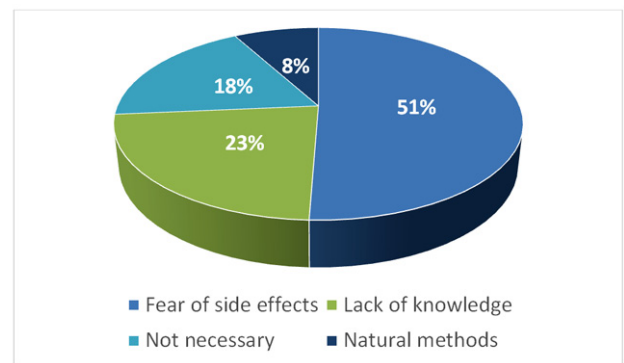


Figure 7. Reason for negative attitude to non-barrier methods of contraception for spacing (n=100)

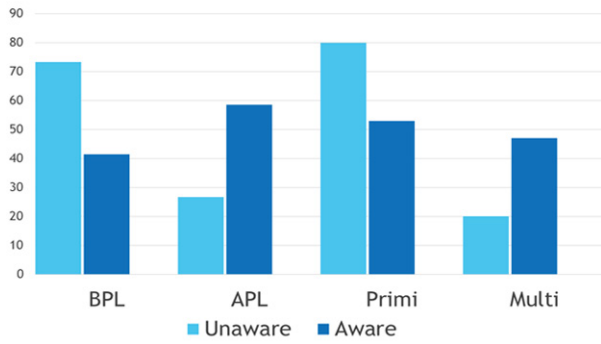


Figure 8. Association of socioeconomic status (P=0.003) and parity (P=0.009) with awareness (n=100)

STATISTICAL SIGNIFICANCE

The above graph (figure 8) shows the significant association between socioeconomic status and awareness and parity and awareness. From the graph, it is evident that awareness is significantly lower among the BPL women, compared to APL women.

Considering parity and awareness, we find that primiparas have significantly lower awareness (80% had no awareness) than multi-paras (56.9% had awareness).

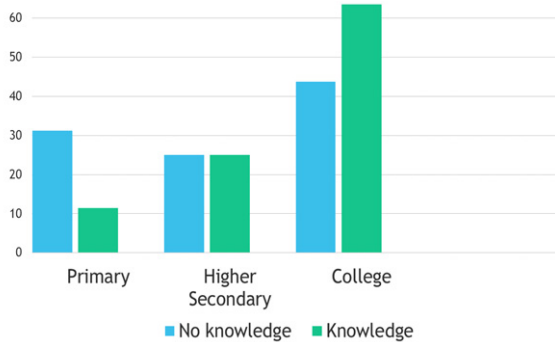


Figure 9. Association between education and knowledge. (P=0.40) (n=100)

The above graph (figure 9) shows that knowledge about contraceptives is significantly higher among college graduates than among women who had primary

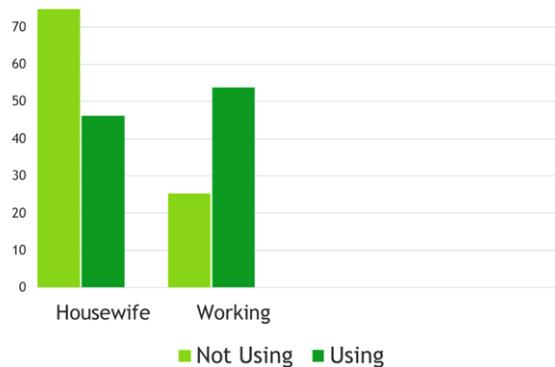


Figure 10. Association between occupation of women and practice of spacing (P=0.041) (n=100)

education only. About 63.5% of college graduates had knowledge while only 11.5% of women with primary educate were sure about the correct use of at least one contraceptive that can be used for spacing.

The above graph (figure 10) shows that the use of contraceptives for spacing is significantly higher among working women than among housewives.

53.5% of working women were using some modern method of contraception for spacing pregnancies, while 74.7% of housewives were not using any.

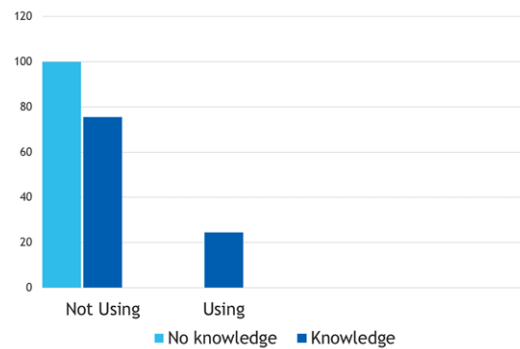


Figure 11. Association between knowledge and use (P=0.000) (n=100)

The above graph (figure 11) clearly shows the knowledge – use gap in spacing. Here we find that 75.5% of women were not using any contraceptive actually know about the correct usage of at least one method.

Only 24.5% of those who had knowledge were using the contraceptives.

DISCUSSION

- In the study, 70% women were aware of at least one modern method of contraception. In study among antenatal women by Sharma J and colleagues in JIPMER,² a similar level of awareness was found. Of those not aware, 73.3% were below poverty line women and 80% were primi-paras. However, this high level of awareness cannot be attributed to prenatal counseling, since 90% of women who were aware had not received prenatal counseling. In a study done among urban Indian women,³ higher level of education had a significant association with awareness. However, in the study, no such association was found. Rather, 70% of women who were unaware did have education past 10th standard.
- The knowledge level was 52% in the study, which is in contrast to the 30% knowledge level in the study mentioned afore. The NFHS-3 reported a nearly universal knowledge about contraception. In

a study by Mathe and colleagues⁵ done in Congo, knowledge level was found to be very high 73%. In a KAP study on contraceptives done in 28 districts in rural north India⁵, the knowledge level was found to be 50%.

- In the study, the level of knowledge regarding intrauterine devices, which is invasive, were high, but most of them were ignorant of other methods which may be used.
- In the study, a statistically significant relationship was found between knowledge and education. The same association was found by studies conducted in urban India, Florida⁶ and rural Kashmir.^{7,4} Women who had higher education had correct knowledge regarding the use of spacing methods.
- Though 87% women felt the need for spacing, only 12 among the 100 women were actually using a spacing method. Most of them had not previously used one also. In a study conducted in rural India also, 70.5% of women used a contraceptive only after completing their family i.e., they used permanent methods. Thus, a huge gap is seen between knowledge-attitude and practice. About 9 women admitted that they would not want another child and would resort to MTP.
- More than half of the working women in the study were found to use a spacing method. Thus we find that working women feel a greater need to space their pregnancies.
- This study showed a huge gap between knowledge and use. Even though women had the knowledge about the correct use, there are several misconceptions that exist among them. This is probably because the source of this knowledge is not proper. Studies have shown that the most common source of information was through the media.
- Only 7% had received prenatal counseling in the study. In study by Bastianelli and colleagues,⁸ only 5.5% of 436 women had acknowledged receiving information about contraception in prenatal period. In the study by Sharma J, only 11% of 404 women received prenatal counseling.
- An intervention based study conducted in rural Uttar Pradesh,⁹ prenatal counseling had been found to be crucial in improving use of contraception. A similar finding was observed in a study conducted in Florida.
- Analyzing the reasons for negative attitude towards spacing, fear of side effects was found to be the most common reason (50.6%). In a study conducted

in Bangladesh,¹⁰ it was found that women perceive modern methods as “strong”.

- The next most common reason was “lack of knowledge”(23%). Similar findings were observed in studies conducted in rural Bareilly in Uttar Pradesh¹¹ as well in Italy. About 18.4% women felt it was not necessary as they have a low risk of pregnancy. Study conducted in Tamil Nadu¹² among 700 married couples also, 18% felt the risk to be low. 50% of Italian women also felt they did not need it.
- 57.5% women in the study had taken the decision not to use spacing methods by themselves. 21.85% faced opposition from husband and relatives. In a study conducted among 200 couples in Haryana,¹³ 6.5% women were not free to use contraception without husband’s consent.
- Though almost all the women were registered with PHC, about 30% had not received the 3 antenatal visits which is the duty of the JPHN. About a quarter of the study subjects acknowledged that they were only contacted over the phone by the JPHN, and were not actually visited. Again, they have not received any antenatal counseling about spacing.
- In the study, we got cases where marriage and pregnancy had taken place at an age less than 18 years. This is despite the fact our study was set in an urban setting. Almost all of these women were from the lower socioeconomic group.

CONCLUSION

- Through this study, it was found that there is a huge gap between knowledge- attitude and practice, with regard to spacing. Though many women felt the need for spacing, they were not willing to accept any method.
- There are several myths and misconceptions, even among highly educated women, about the side effects of contraceptives. Some of them also face hindrance from families. This can only be overcome through adequate counseling, and that should be given in prenatal period itself.
- It is the duty of the JPHN to provide this counseling, and mobilize women to use contraceptives. However, the service of the JPHN in this regard is not adequate enough.
- So our recommendation is to improve the prenatal counseling of women. Time should be taken to explain to the women the need for spacing, the wide variety of options available to them. The health service provider should alleviate the fear associated

with several myths about its side effects. Involving husbands in these sessions could also motivate the couple to take up proper spacing practices.

END NOTE

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Conflict of Interest: None declared

Editor's Remarks: This article on spacing of pregnancies is based on a KAP study performed by a student researcher with mentoring by faculty from the Obstetrics department is an example of serious research done with quality in an area of interest for all clinicians, public health professionals, administrators and political leaders alike. Recommended for reading by all.

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