Original Research Article

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A study of knowledge, attitude and practice regarding child birth spacing and its methods among the antenatal women of rural Thoothukudi, Tamil Nadu

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ABSTRACT

Background: India is the second highest populated country in the world with 1.32 billion populations and will reach 1.53 billion by next 30 years. The birth spacing is defined as the time interval between two births. While knowledge of birth spacing has reached substantial levels, conversion of this knowledge into a change in attitude and practicing of birth spacing appears lagged and challenged. Our objective was to assess the knowledge, attitude and practice of various birth spacing methods among the antenatal women of rural Thoothukudi.

Methods: A descriptive cross sectional study was conducted among antenatal women who came for their routine antenatal checkup at the PHCs. Data was collected with a pre-tested, semi-structured questionnaire and analysed. Results were expressed in percentages and proportions.

Results: Out of 120 antenatal women participated in the study, majority (82.5%) had knowledge about ideal spacing period of 2 to 3 years. But majority of the women (79.20%) did not practice any of the birth spacing methods and only 20.80% women were actually practicing some of the birth spacing methods and the common method was Copper-T. The common reason for not adopting and discontinuance of contraceptive method is fear of its adverse effects (31%). **Conclusions:** The study results revealed that most of the women were aware that birth spacing between pregnancies

Conclusions: The study results revealed that most of the women were aware that birth spacing between pregnancies is important and knew only about Cu-T. Also they knew that the ideal spacing interval should be 3 years. Thus Health Education Programmes are a must to enhance the knowledge of antenatal women about birth spacing methods.

Keywords: Antenatal women, Birth spacing methods, Rural Thoothukudi

INTRODUCTION

India is the second highest populated country in the world and the current population of India is 1.32 billion and it will reach 1.53 billion by next 30 years and will become highest populated country in the world as per UN survey. Thus it is necessary to control the population growth. The WHO suggests if there is two to three years gap between births, then it will reduce infant and child mortality and improve maternal and child health.¹

The birth spacing is defined as the time interval between two births. India has an average birth spacing of twenty two months, which is a little less than two years, despite of wide knowledge about contraception. It is an important lever by which maternal and child health is improved and further reduction in the indices such as maternal mortality ratio (MMR, female deaths per 100,000 live births from any cause related to or aggravated by pregnancy or its management excluding accidental or individual cause) can be assured. The concept of optimal birth spacing is twenty four months which is mentioned in a study conducted regarding birth spacing and methods available for in rural Haryana, India. In the study it was found that the education of females is a major improving factor leading to increased awareness as well as benefits of birth spacing. ^{2,3} High discontinuation rates of contraceptive use are also observed in Tamil Nadu. ⁴ Few studies report that

pregnancies are terminated to space births.^{4,5} Reports from NFHS-4 reveals that adoption of temporary methods is very low in the state with only 0.4% using oral contraceptive pills (OCPs), 2.3% intrauterine devices (IUDs) and 2.1% condoms and the unmet need for spacing is 5.13%.⁶ Studies across India have shown that the common reason for women seeking abortions is to limit or space births irrespective of the sex of the children.⁵ While knowledge of birth spacing has reached substantial levels, conversion of this knowledge into a change in attitude and practicing of birth spacing appears lagged.¹

Therefore health education regarding birth spacing should be given to all mothers especially during third trimester and also in postpartum period. If there is good time period between the two babies there is an increased chance of better outcome for both the baby and the mother. In our country, the family planning methods have been in place for more than four decades. The permanent methods thus limiting the family size has been successful but still the spacing methods of contraception are lagging behind.²

Thus the Government of India has initiated many strategies and targets to achieve via many health programmes such as National Population Policy 2000 (NPP), National Health Policy 2002 (NHP), National Health Mission (NHM) etc. to introduce, adopt and evaluate the *various* family planning methods for the improvement of maternal and child health (MCH) and family welfare. The present study was done mainly on antenatal women of the rural population of Thoothukudi, India regarding their knowledge, attitude and practices of different child birth spacing techniques.

Objectives

To assess the knowledge, attitude and practice of various birth spacing methods among the antenatal women of rural Thoothukudi who visited the primary health centers for their routine antenatal check up.

METHODS

A descriptive, cross sectional study was conducted in two primary health centers (Mapillaiurani and Pudhukottai PHCs) attached to the Department of Community Medicine of Government Thoothukudi Medical College for a period of two months (January and February 2020).

Inclusion criteria

All married antenatal women who came for their routine antenatal checkup at the PHCs were included in the study.

Exclusion criteria

Unmarried antenatal women, antenatal women who were not willing to participate in the study, antenatal women who had conceived following any treatment for infertility were excluded from the study.

A total of 135 women attended the antenatal clinic in the two selected PHCs during the study period of two months. After applying the inclusion and exclusion criteria (13 women underwent infertility treatment and 2 women were not willing), 120 antenatal women (n=120) were included in the study.

Institutional ethical committee approval and informed consent was obtained from the study subjects before the start of the study. Data was collected using the predesigned, pre-tested, semi structured questionnaire by interviewing method in their local language Tamil. The data collected was entered in Microsoft Excel mater sheet, analyzed and results were expressed in terms of proportions and percentages.

RESULTS

A total number of 120 married women participated in this study. Each of them were interviewed for their age, religion, type of family, education, occupation, number of live children, and their knowledge attitude and practice regarding birth spacing. Nearly half of the women (46.60%) among the study population belong to the age group of 21-25 years, 82 (68.4%) women were Hindus by religion and 62 (51.7%) belonged to nuclear family. Majority of the study participants were educated till high school level and mostly were housewife by occupation (95%) (Table 1).

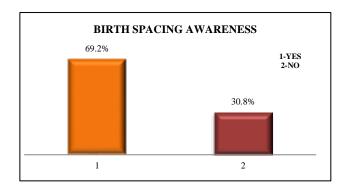


Figure 1: Distribution of the study participants according to their awareness about birth spacing.

It was found that among the 120 women, who were studied, majority (69.20%) of them were aware of birth spacing and about 30.80% did not have any awareness about birth spacing (Figure 1). About 99 (82.50%) women out of 120 had the knowledge of ideal birth spacing interval of 2 to 3 years and about 6 (5%) had no idea about ideal time. Figure 2 shows that major source of knowledge regarding birth spacing came from peers (50%) which are followed by health education (35%) and then by the health care workers (8.30%) and least knowledge is gained through media (1.70%). Majority of women 108 (90%) have thought that birth spacing is

important for their health and about 8 (6.70%) have no thoughts or ideas about birth spacing and the others thought they are of convenience (1.70%) and their personal (0.80%).

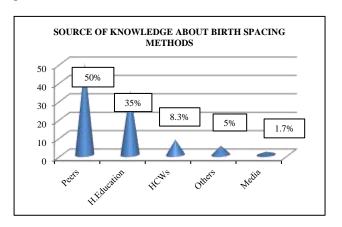


Figure 2: Distribution of study participants according to their source of knowledge.

Among the study population, majority of the women (79.20%) did not practice any of the birth spacing methods and 20.80% women were actually practicing some of the birth spacing methods. Among 120 study participants, 66 were primi and remaining 54 had at least one pregnancy. Among the primi, majority (90.9%) did not practice any birth spacing methods and only 6 women (9.1%) adopted barrier method and OCPs for postponing their first pregnancy.

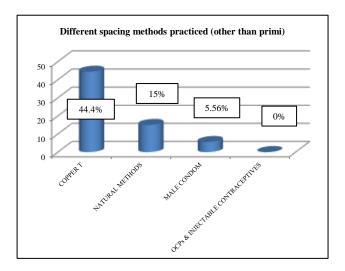


Figure 3: Distribution of study participants (excluding primi) according to the different birth spacing methods practiced.

Among the remaining 54 women, 24 (44.4%) adopted Copper T, 8 (15%) women adopted natural methods and 2 (5.56%) women adopted barrier methods- male condom as their birth spacing methods. The remaining methods like injectables and oral contraceptive pills were used by none of them (Figure 3).

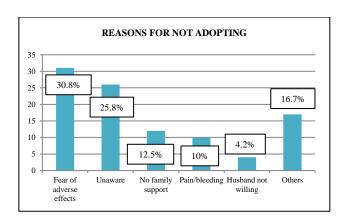


Figure 4: Distribution of study participants according to their reasons for not adopting any of the birth spacing methods.

Table 1: Demographic profile of the study participants.

Age groups (years)	Number	Percentage
18-20	32	26.6
21-25	56	46.6
26-30	24	20.2
>30	8	6.6
Total	120	100
Religion		
Hindus	82	68.4
Christians	32	26.6
Muslims	6	5
Total	120	100
Type of family		
Nuclear	62	51.7
Joint	56	46.7
Three generation	2	1.6
Total	120	100
Education		
Illiterate	0	0
Primary school	1	0.8
Middle school	47	39.2
High school	39	32.5
Graduate	31	25.8
Professional	2	1.7
Total	120	100
Occupation		
Housewife	114	95
Coolie	2	1.70
Government employee	1	0.80
Others	3	2.50
Total	120	100
No. of living children		
Zero	66	55
One child	42	35
Two children	12	10
Total	120	100

According to the data (Figure 4), the most common reason for not adopting and discontinuance of contraceptive method is fear of adverse effects (31%) which is followed by not aware of any of the methods (26%). 17% were not adapting any methods because of other reasons and 12% of them were due to lack of family support. About 10% told that inconvenience, pain and bleeding are the reasons that are forced to discontinue or not adapting any contraceptive methods.

DISCUSSION

The study was conducted among 120 antenatal women who attended their routine antenatal visits to the primary health centres (PHCs) of Mapillaiyurani and Pudhukottai. Data was collected using a pretested, pre designed, semi structured questionnaire and the mothers were explained about it in their local language Tamil. Of the 120 women nearly 69.20% were aware that birth spacing between successive pregnancies is important and nearly 82.50% of women considered that 2 to 3 years of birth spacing is the ideal time. A similar study conducted in Dehradun by Sharma et al has also revealed that almost 90% of the women knew that a birth interval of 2 to 3 years or more is required.¹

Awareness of birth spacing came from peer groups in 50% of the women. 35% have acquired knowledge on their own which had a big educational influence and only 8.3% have acquired knowledge through health care workers. A study from Andhra Pradesh shows that family and friends have been the main source of information about contraceptives (67.8%), mass media was the next (8.8%), while health personnel was the least (4%).8

Among the women who are all considered that birth spacing is important, about 90% preferred it for the better care of their child as well as for their own health. A study conducted in Omandhur by Jayanthi et al also showed that women considered birth spacing is required to take care of their previous child and for the health of the mother and the new born.⁴

About 68.3% of the women were aware of Cu-T which was followed by barrier methods, oral contraceptive (OC) pills, natural methods and then injectable contraceptives. Surekha et al study also reported Cu-T (IUCD) as most commonly known (61%) temporary means of contraception followed by OC pills and condom. But only 64% have adapted a birth spacing method. Cu-T was again the most commonly used method by nearly 20% of women while 7% used natural method and only 2% used barrier method. Less adoption of temporary methods and high discontinuance rates have been observed in other studies also. ^{2,4,9}

About 31% of women have not adapted any spacing method with the fear of adverse effects, 26% due to lack of awareness and 16% due to lack of husband and family support. We found that many women have lot of fear and

myths in using a spacing method due to lack of proper knowledge.³ Partner opposition had been cited as the major reason for non-usage of contraception.¹ Dual decision making (both spouses) is rarely seen with regard to the number of children.² Adequate knowledge on temporary methods of contraception among women is crucial to birth space. A recent study from Tamil Nadu also showed that providing information booklets and health education to women have improved knowledge and utilisation.⁴ Thus, educating and monitoring the couple about various types of spacing methods, encourage them to have a dual decision about spacing and sorting out the fear of the couple about the spacing method would help to promote the birth spacing.

The major limitation of the study was small sample size since only 120 antenatal women came for their routine antenatal check-up during the specified study period. Moreover, in all the two PHCs since only Tuesdays are usually meant for antenatal visits, we could neither collect full information nor follow up the study subjects to assess the success of our behaviour change communication done to them. In addition, the mothers especially primi were timid and reluctant initially in sharing the information regarding their personal life. Also there was no sufficient time in making the mothers fully understand what the study is about and in encouraging them to share their knowledge, attitude and practice about birth spacing methods.

CONCLUSION

The present study assessed the knowledge, attitude and practice of birth spacing and its methods among the antenatal women in selected community area (areas under Pudhukottai and Mapillaiurani PHCs). Results revealed that most of the women were aware that birth spacing between pregnancies is important and the ideal spacing interval should be 2-3 years. Most of the women having knowledge about birth spacing methods knew only about Cu-T. They are lacking in knowledge about other birth spacing methods. Of the women who knew about these spacing methods, only a few were adopting these methods (Cu-T). Others were not adopting these methods mainly because of the fear of adverse effects. Thus health education programmes are a must to enhance the knowledge of antenatal women about spacing methods, their attitude towards various methods and their choice to select a method after their acceptance.

Recommendations

Based on our results we found that the primi mothers have the least knowledge on birth spacing methods and so we recommend that all antenatal women including primi mothers must be educated about the various birth spacing methods of contraception during their antenatal visits itself. They must be given multiple choices of spacing techniques and should be explained about each and every method so that they become fully aware of all other

methods apart from Cu-T and select a method of their own choice that they find to be convenient.

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Ethical approval: The study was approved by the

Institutional Ethics Committee

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