



LACK OF FERTILITY AWARENESS AND PRACTICES OF FERTILE PERIOD AS A CAUSE OF INFERTILITY IN A TERTIARY CARE HOSPITAL OF NORTH INDIA

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ABSTRACT

Background: Most cases of infertility are because of physiological causes in one or both the partners. Poor fertility period awareness acts as a contributing cause. This study is aimed to achieve a better understanding of the awareness and practices of fertile period in infertile couples seeking fertility assistance.

Methods: This was a cross-sectional questionnaire based study, conducted on infertile couples at Santosh Medical College and Hospital, Ghaziabad, over a period of 3 months from December 2019 to February 2020.

Results: Out of 132 patients approached, 118 patients (89.4%) consented to be included in the study. Only 20% correctly identified that both males and females are equally responsible for infertility. 74% patients had knowledge about the fertile period of female's menstrual cycle, but only 29% of them could correctly identify it to be mid-cycle. 83% patients were not practicing fertile period either due to lack of knowledge about the correct time of fertile window period or due to the fact that since their husbands were staying away, they were not able to follow any particular time of the menstrual cycle. 24% patients had already taken prior treatment, but 64 % of them were not practicing fertile period, as they did not believe in the concept of fertile period.

Conclusion: There was poor level of fertility awareness and practices among women presenting for treatment of infertility. Greater availability of fertility clinics and proper counseling by trained healthcare personnel about timed intercourse within the fertile window is strongly recommended.

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INTRODUCTION

Infertility is a disease of reproductive health that exerts a profound impact on an estimated 80 million people worldwide. The clinical definition of infertility is an inability to conceive after 12 months or more of regular unprotected coitus in the absence of known reproductive pathology (1).

Infertility is as an important reproductive health problem that causes emotional, psychological, and social disorders (2). Having a child is of considerable importance to women, and when they are unable to conceive, they are often subjected to strong pressure from family members and relatives. Infertility threatens women's families and social statuses and, in some societies, may drive husbands to seek a divorce or re-marry. Infertility is considered to be a social stigma in many countries. Especially for women, infertility significantly reduces their quality of life, expose for multiple sexual partners, sexually transmitted diseases, increased sexual dysfunction, and poor kinship. Therefore, it is a real personal, social, and public health issue, mainly in developing countries. Although infertility is a global issue, the magnitude of infertility is reported worldwide differently. The infertility rate ranges from 5–30% as reported for different countries (2).

Knowledge about infertility is inadequate in many parts of the world. Studies attribute majority of cases of infertility to physiological causes in both partners. Most couples are unaware of the fertile period, ie, period of the month in which they are most fertile (3, 4). These patients are then subjected to unnecessary investigations, which add the psychological and financial burden on them. Ideally, before exploring the pathological aspect of infertility, approach should be focused more on the physiology of fertility.

Although the incidence of infertility is on rise, not many studies have been done to evaluate fertility awareness among Indian women. Determining the level of knowledge and awareness of fertility practices among Indian women has important public health implications.

This study is aimed to achieve a better understanding of the awareness and practices of fertile period in infertile couples seeking fertility assistance.

MATERIALS AND METHODS

This was a cross-sectional questionnaire based study which was conducted on infertile couples at Santosh Medical College and Hospital, Ghaziabad, over a period of 3 months from

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December 2019 to February 2020. Infertile couples in the age group of 18-40 years who were ready to participate in the study were included. Patients who did not show willingness to participate in the study were the only ones excluded. Total of 132 patients were approached, out of which 118 patients consented to be included in the study. Written informed consent was taken from each participant. Approval was obtained from the ethical committee of the institution. The questionnaire included socio-demographic data of patient, patient's knowledge about causes of infertility including awareness of fertile period in menstrual cycle, source of information for fertile period, and whether they were practicing the fertile period or no.

Statistical Analysis: The data was collected and tabulated. The observations were described in terms of percentages and proportions. Data was compiled and statistically analysed using chi square test, students t test where applicable. $p < 0.05$ was considered statistically significant.

RESULTS

Total of 132 patients were approached, out of which 118 patients (89.4%) consented to be included in the study. Majority of them (87%) were less than 35 years of age. 92 patients (78%) belonged to urban population. According to their educational status, patients were classified into Illiterate, primary education (up to 8th standard), secondary education (9th to 12th standard), graduates and post graduates. Maximum participants had secondary education (n=48, 41%), followed by graduates (n=33, 28%). 83% of the couples belonged to Hindu religion. 59% of the patients (n=70) patients came for fertility consultation within 2 years of their marriage. (Table 1)

Table 1 Socio-Demographic Profile of the patients

Characteristics	Sub groups	n (118)	(%)
Age (Years)	<25	46	39
	26-35	56	48
	>35	16	13
Residence	Rural	26	22
	Urban	92	78
Educational Status	Illiterate	10	08
	Primary	20	17
	Secondary	48	41
	Graduate	33	28
Religion	Post Graduate	07	06
	Hindu	98	83
	Muslim	18	15
Duration Of Marriage	Others	02	02
	<1 year	21	18
	1-2 years	49	41
	2-5 years	28	24
	>5 years	20	17

Majority of the patients considered females alone to be responsible for infertility (n=56, 48%), with only 20% (n=24) correctly identifying that both males and females are equally responsible for infertility. Upon enquiring about the fertile period of female's menstrual cycle, 74% (n=87) of the patients were affirmative. However, when asked to identify the fertile period from the choices given (immediate post-menstrual, mid cycle or pre-menstrual), only 29% (n=25, out of 87) of them could correctly identify it to be mid-cycle. 64% (n=56) thought that immediate post menstrual period was the most fertile period. Out of 87 couples who had the concept of fertile period, major source of whatever information was relatives or friends (n=68, 78%), followed by medical personnel (n=15, 17%). (Table 2)

Table 2 Knowledge and attitude towards fertile period

Characteristics	Sub groups	n (118)	(%)
Infertility caused by	Female alone	56	48%
	Male alone	38	32%
	Both male and female	24	20%
Concept of Fertile Period	Yes	87*	74%
	No	31	26%
Characteristics	Sub groups	n (87)*	(%)
Timing of Fertile Period	Immediate Post Menstrual	56	64%
	Mid-cycle	25	29%
	Pre Menstrual	06	07%
Source of Knowledge	Medical Personnel	15	17%
	Internet	04	05%
	Relatives/Friend	68	78%

Out of 118 couples included in the study, majority of them (n=98, 83%) were not practicing fertile period. When enquired about the reason, most of them had no knowledge about the correct time of fertile window period (n=82, 84%). 11% (n=11) of them said that since their husbands were staying away, they were not able to follow any particular time of the menstrual cycle. (Table 3)

Table 3 Practices of fertile period

Practicing Fertile Period	n (118)	(%)
Yes	20	17%
No	98	83%
If Not, Then Why	n (98)	(%)
No Knowledge	82	84%
Not reliable Method	05	05%
Husband Staying away	11	11%
Pervious Treatment Taken	n (118)	(%)
Yes	28*	24%
No	90	76%
If Yes, Practicing Fertile Period	n (28)*	(%)
Yes	10	36%
No	18	64%

28 patients (24%) had already taken prior treatment. But despite of having counseling done by medical personnel, 18 couples (64 %) were not practicing fertile period, as they did not believe in the concept of fertile period. (Table 3)

DISCUSSION

In our study, majority of the patients were less than 35 years of age, and sought consultation for fertility within 2 years of their marriage. This indicates the keenness for having a child early after marriage, either as a personal choice or due to family pressure. However, it was surprising to know that there was limited knowledge about fertile period in the participants, which was also seen in studies done by Kshrisagar SP et al (5) and Ali S et al (4). This is the target population who should be counseled about the importance of practicing fertile period. It is also important for the elderly in the society to have some awareness about infertility. In that way, they will not pressurize young newlyweds, if they are unable to conceive right after the marriage, which is a common expectation in the joint family structure (4).

Almost 50% of the patients considered females alone to be responsible for infertility and accepted that their husbands were not ready for any consultation or counseling for fertility. This reflects the strong stigma of females being sole responsible for infertility in Indian society.

In our study, 74 % patients accepted that they had the concept of fertile period, but only 29% patients could correctly identify mid-cycle as the most fertile period during female menstrual cycle. Our results were comparable to study by Kshrisagar SP et al (5) and Blake et al (6) where only 36% and 26 % patients

respectively had correct knowledge about fertile period. These results were lower than the results in the study of Ali S et al (4), where 46% could correctly identify the fertile period. This may be due to difference in the educational level of the demographic population. This lack of information about proper timing of sexual intercourse may lead to possible delay in conception in majority of the couples.

In this study only 36% of the patients who had taken prior treatment for infertility were actually practicing fertile period. This gives a reason for concern about the effective counseling and proper advice given by healthcare providers.

CONCLUSION

The finding of this study supported the generally poor level of fertility awareness among women presenting for treatment of infertility. Greater availability of fertility clinics and proper counseling by trained healthcare personnel about timed intercourse within the fertile window is strongly recommended. The emphasis of applying this approach for a minimum of six menstrual cycles should be laid upon these couples, as this is necessary to optimize the chance of natural conception, before referring them for further work up of infertility.

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