

Contraceptive practices among married female employees at Government Medical College and government Ayurvedic College, Nanded

Bhattare V^{1*}, Ingole A², Gattani P³

{¹Assistant Professor, Department of Preventive and Social Medicine} {²Assistant Professor, Department of Physiology}
Government Medical College, Latur, Maharashtra, INDIA.

³Associate Professor, Department of Preventive and Social Medicine, Government Medical College, Aurangabad, Maharashtra, INDIA.

Email: dranujingole@gmail.com

Abstract

The regulation of fertility through intervention requires knowledge of contraceptive practices. The present study was carried out among married female employees working at Government College and Hospital, Nanded. 15 to 44 years, 248 from Medical College, 43 from Ayurvedic College, were children was 56.25% in doctors, 47.89% in class III and 22.22% in class IV. Acceptance of spacing methods before first and second pregnancy in Class III and doctors but no use of spacing method before first and second pregnancy in Class IV. High acceptance was found among nuclear families. Practice was significantly higher among women who were exposed to electronic media.

Keywords: Contraceptives, family type, source of advice.

*Address for Correspondence:

Dr. Bhattare V, Assistant Professor, Department of Community Medicine, Government Medical College, Latur, Maharashtra, INDIA.

Email: dranujingole@gmail.com

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INTRODUCTION

In India, although births are declining high fertility is deep rooted. Demographers attribute this change to changes in breast-feeding practices, abstinence and nuptiality, modernization and development, improvement in health and nutrition leading to improved infant and child mortality and life expectancy at birth as well as to the family planning programme itself. It is widely recognized that human fertility, responsible for biological replacement in society is a complicated process governed not merely by biological limits, but also greatly influenced by socio-cultural, economical, psychological and political factors. The factors that directly affect

fertility are called proximate determinants of fertility. Each of the proximate determinants has a direct effect on fertility and together, they determine the level of fertility. Some of the factors such as contraceptives used and abortions have an immediate and direct impact on the number of children. These factors together represent the main characteristics of fertility at a given point of time²⁴. The regulation of fertility through intervention, be it government, social or religious requires a knowledge of post and present level of fertility. Because, unless data relating fertility and child survival rates are available it will not be possible to make projections of population to be housed, educated, employment and even more important fed and clothed. It is therefore necessary to understand the relationship between economic and social development and fertility, which basically involves an identification of the main determinants of fertility and the way and means of taking them¹⁵. In present study, married female employees selected for study. An attempt being made to know to what extent they are practicing contraception with view to gain first hand information.

MATERIALS AND METHODS

The present study was carried out among married female employees working at Government Medical College and

Hospital, and at Government Ayurvedic College and Hospital, Nanded, during January to December 2008. The total 291 married doctors, married class III and married class IV workers in age group 15 to 44 years, 248 from Medical College, 43 from Ayurvedic college, were selected. The coverage rate for study was 94.84% (276). The rest (5.16%) could not be included in the study due to various reasons such as non-availability, leave etc. Information available on pay of the Government employees was utilized for working out their class. These were divided in following groups according to their pay as **Doctors:** Included those having professional degree or postgraduate either in modern medicine or in ayurveda and working as medical teachers and medical officers in these colleges and hospitals, in receipt of pay of Rs. 8000/month or more. **Class III:** included those in receipt of pay of Rs. 3050/month or more but less than 8000/month and working as staff nurses, paramedical workers, office staff, lab technicians etc in these colleges and hospitals. **Class IV:** Include those in receipt of pay less than Rs. 3050/month and working as sweepers, attendants, peon etc in these colleges and hospitals. All these employees were interviewed on pretested proforma for the information about fertility pattern. Also personal data regarding following factors was collected: Age: This was recorded in completed years. Marital Status: This was considered as married, unmarried, separated, divorced or widowed. In this study Married: married and staying with their husband Divorce: Legal termination of

marriage. Separation: Means physical separation of husband and wife, where they no longer share the same dwelling. Religion: It was noted as Hindu, Muslim, Christian, Buddhist and others. Others included Jain, Parasi, Sikh etc. **Literacy Status:** Illiterate: A person who could not read or write. This category also included those who could sign mechanically and had no formal education at all. Literate: a) Primary: Those who had studied upto primary school. b) Middle school: Those who had studied between 5th to 7th standard, c) Secondary School: Those who had studied between 8th to 10th standard, d) Higher Secondary School: Those who had studied between 11th and 12th standard or any other diploma, e) Graduate: Degree in any subject i.e. B.A., B.Sc. etc. and f) Postgraduate or professional degree: MBBS, BE, honorable degree, M.A. etc. **Employee:** Only married female employees staying with their husband in age group 15-44 years were the subjects of this study. **Obstetric history:** Total number of living children and age of last living children was asked. Duration for first parity from marriage and interval between first –second and second –third. **Type of family:** It was noted either as nuclear family or as joint family. **Nuclear family:** It consists of the married couple and their children where children still regarded as dependants. **Joint family:** It consists of number of married couples and their children who live in the same household .All men are related by blood and women of the household are their wives, unmarried girls and widows of family kinsmen.

OBSERVATIONS

Table 1: Current practice of contraception by married women

| Contraception | Doctors | Class III | Class IV | Total |
|-----------------------|------------------|-------------------|------------------|-------------------|
| Acceptors | 27 (84.38%) | 123 (64.73%) | 37 (68.51%) | 187 (67.75%) |
| Non-acceptors | 5 (15.62%) | 67 (35.27%) | 17 (31.49%) | 89 (32.25%) |
| Total eligible | 32 (100%) | 190 (100%) | 54 (100%) | 276 (100%) |

Table 2: Reasons for nonuse of contraceptives currently in non-acceptors

| Cause for not using Contraception | Doctors (%) | Class III (%) | Class IV (%) | Total (%) |
|------------------------------------|---------------|----------------|-----------------|-----------------|
| Recently married | 2(40.0) | 6(8.9) | 1(5.9) | 9(10.1) |
| Pregnant | 1(20.0) | 6(8.9) | 2(11.7) | 9(10.1) |
| Incomplete family size | 2(40.0) | 42(62.7) | 11(64.7) | 55(61.8) |
| Refusal by husband / mother in law | -- | 5(7.5) | 2(11.7) | 7(7.9) |
| Fear of side effects | -- | 1(1.5) | -- | 1(1.1) |
| Lactational ammenorrhoea | -- | 5(7.4) | 1(5.9) | 6(6.7) |
| Infrequent sex | -- | 2(3.0) | -- | 2(2.2) |
| Against religion | -- | -- | -- | -- |
| Total non-acceptors | 5(100) | 67(100) | 17 (100) | 89 (100) |
| Total eligible | 32 | 190 | 54 | 276 |

Table 3: Current practice of contraceptive method in acceptors

| Method used | Doctors | Class III | Class IV | Total |
|-------------|-----------|------------|----------|------------|
| Condom | 2(7.4%) | 9(7.31%) | -- | 11(5.88%) |
| OC Pills | 3(11.11%) | 3(2.43%) | -- | 6(3.2%) |
| IUD | 5(18.52%) | 32(26.01%) | 2(5.4%) | 39(20.85%) |

| | | | | |
|------------------------------|-----------------|------------------|-----------------|------------------|
| Rhythm/Withdrawal/Abstinence | 2(7.4%) | 13(10.57%) | -- | 15(8.02%) |
| Tubectomy | 11(40.74%) | 64(52.03%) | 30(81.08%) | 105(56.15%) |
| Vasectomy | 4(14.81%) | 2(1.63%) | 5(13.51%) | 11(5.88%) |
| Total | 27(100%) | 123(100%) | 37(100%) | 187(100%) |

($\chi^2=20.8$; $df=2$; $p<0.001$ chi-square test was applied for method of contraception as one variable and class of employee as another variable)

Table 4: Most preferable method of contraception in past

| Employees | BEFORE PREGNANCY | | | | |
|-----------|------------------|------------|-------------|------------|------------|
| | Gravida I | Gravida II | Gravida III | Gravida IV | Gravida V+ |
| Doctor | Condom | IUD | Tubectomy | -- | -- |
| Class III | Condom | IUD | IUD | Tubectomy | Tubectomy |
| Class IV | -- | -- | IUD | Tubectomy | Tubectomy |

Table 5: Practice of contraception by age of acceptors

| Method | 20-24yrs Employee | 25-29yrs Employee | 30-34yrs Employee | 35-39yrs Employee | 40-44yrs Employee | Total | |
|--------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------|-----------|
| Condom | Doctor | -- | 2(20%) | -- | -- | 2(7.4%) | |
| | Class III | 1(100%) | 4(80%) | 4(11.4%) | -- | 9(7.31%) | |
| | Class IV | -- | -- | -- | -- | -- | |
| OC Pills | Doctor | -- | 3(75%) | -- | -- | 3(11.11%) | |
| | Class III | -- | 1(20%) | 2(5.7%) | -- | 3(2.44%) | |
| | Class IV | -- | -- | -- | -- | -- | |
| IUD | Doctor | -- | 4(40%) | 1(10%) | -- | 5(18.52%) | |
| | Class III | -- | -- | 20(57.1%) | 12(29.3%) | 32(26.01%) | |
| | Class IV | -- | -- | 1(33.3%) | 1(8.4%) | 2(5.4%) | |
| Abstinence, Rhythm, Withdrawal | Doctor | -- | 1(25%) | 1(10%) | -- | 2(7.4%) | |
| | Class III | -- | -- | 5(14.3%) | 8(19.5%) | 13(10.56%) | |
| Class IV | -- | -- | -- | -- | -- | -- | |
| Tubectomy | Doctor | -- | -- | 2(20%) | 7(70%) | 2(66.7) | |
| | Class III | -- | -- | 4(11.4%) | 21(51.22%) | 39(95.1%) | |
| | Class IV | -- | -- | 2(66.7%) | 8(66.7%) | 20(90.9%) | |
| Vasectomy | Doctor | -- | -- | 1(10%) | 2(20%) | 1(33.3%) | |
| | Class III | -- | -- | -- | -- | 2(4.9%) | |
| | Class IV | -- | -- | -- | 3(25%) | 2(9.1%) | |
| Total | 1 | 9 | 48 | 63 | 66 | 187 | |
| Total | Doctor | -- | 4(100%) | 10(100%) | 10(100%) | 3(100%) | 27(100%) |
| | Class III | 1(100%) | 5(100%) | 35(100%) | 41(100%) | 41(100%) | 123(100%) |
| | Class IV | -- | -- | 3(100%) | 12(100%) | 22(100%) | 37(100%) |

Table 6: Number of living children and Practice of contraception by the employees

| No of living children | Doctors (%) | | Class III (%) | | Class IV (%) | | Total (%) | |
|-----------------------|----------------|-----------------|-----------------|------------------|----------------|-----------------|-----------------|------------------|
| | Eligible | Acceptor | Eligible | Acceptor | Eligible | Acceptor | Eligible | Acceptor |
| 0 | 3(100) | -- | 6(100) | 1(16.6) | 1(100) | -- | 10(100) | 1(10) |
| 1 | 10(100) | 8(80) | 25(100) | 15(60) | 4(100) | 1(25) | 39(100) | 24(61.5) |
| 2 | 18(100) | 18(100) | 91(100) | 51(56) | 12(100) | 3(25) | 121(100) | 72(59.5) |
| 3 | 1(100) | 1(100) | 51(100) | 39(76.5) | 18(100) | 15(83.3) | 70(100) | 55(78.6) |
| 4 | -- | -- | 15(100) | 15(100) | 14(100) | 13(92.8) | 29(100) | 28(96.6) |
| 5 | -- | -- | 2(100) | 2(100) | 3(100) | 3(100) | 5(100) | 5(100) |
| 6 | -- | -- | -- | -- | 2(100) | 2(100) | 2(100) | 2(100) |
| Total | 32(100) | 27(84.4) | 190(100) | 123(64.7) | 54(100) | 37(68.5) | 276(100) | 187(67.7) |

Table 7: Number of living children and specific method of contraception

| No. of living children | Condom (%) | OCPills (%) | IUD (%) | R.W.A (%) | Tubectomy (%) | Vasectomy (%) | Non-acceptor (%) | Total (%) |
|------------------------|------------|-------------|-----------|-----------|---------------|---------------|------------------|-----------|
| 0 | 1(10) | -- | -- | -- | -- | -- | 9(90) | 10(100) |
| 1 | 2(5.1) | 5(12.8) | 12 (30.8) | 4 (10.2) | 1 (2.6) | -- | 15(38.5) | 39(100) |

| | | | | | | | | |
|--------------|----------------|---------------|-----------------|----------------|----------------|----------------|-----------------|-----------------|
| 2 | 8(6.6) | 1(0.8) | 22(18.2) | 7(5.8) | 30(24.8) | 4(3.3) | 49(40.5) | 121(100) |
| 3 | -- | -- | 5(7.1) | 3(4.3) | 44(48.6) | 3(4.3) | 15(21.4) | 70(100) |
| 4 | -- | -- | -- | 1(3.4) | 23 (79.3) | 4(13.8) | 1(3.4) | 29(100) |
| 5 | -- | -- | -- | -- | 5(100) | -- | -- | 5(100) |
| 6+ | -- | -- | -- | -- | 2(100) | -- | -- | 2(100) |
| Total | 11(3.9) | 6(2.2) | 39(14.1) | 15(5.4) | 105(38) | 11(3.9) | 89(32.3) | 276(100) |

Table 8: Current practice of contraception by the age of last child

| Age of last child | Doctors (%) | | Class III (%) | | Class IV (%) | | Total (%) | |
|-------------------|----------------|-----------------|-----------------|------------------|----------------|-----------------|------------------|--------------------|
| | Eligible | Acceptor | Eligible | Acceptor | Eligible | Acceptor | Eligible | Acceptor |
| < 1 | 3(100) | 2(66.7) | 8(100) | 2(25) | 2(100) | -- | 13(100) | 4(30.7) |
| 1-4 | 11(100) | 9(81.8) | 48(100) | 23(47.9) | 10(100) | 4(40) | 69(100) | 36(52.2) |
| 5-9 | 8(100) | 8(100) | 58(100) | 31(53.4) | 13(100) | 9(69.2) | 79(100) | 48(60.7) |
| >10 | 7(100) | 7(100) | 70(100) | 67(95.7) | 28(100) | 24(85.7) | 105(100) | 98(93.3) |
| Total | 29(100) | 26(89.7) | 184(100) | 123(66.8) | 53(100) | 37(69.8) | 266(100)* | 186(69.9)** |

(*10 employees had no child **one acceptor had no child)

Above table shows that, among employees with last child less than one year 2(66.7) doctors were practicing contraception, while only 2(25%) class III and no class IV employees were practicing contraception. Among

employees with last child between 5-9years all doctors were practicing contraception, while 53.4% class III and 69.2% of class IV were practicing contraception.

Table 9: Age of last living child and specific method of contraception

| Age of last child | Condom (%) | OCpills (%) | IUD (%) | R.W.A. (%) | Tubectomy (%) | Vasectomy (%) | Non-acceptor (%) | Total (%) |
|-------------------|----------------|---------------|-----------------|----------------|------------------|----------------|------------------|-------------------|
| <1 | 1(7.7) | 3(23) | -- | 1(7.7) | -- | -- | 8(61.5) | 13(100%) |
| 1-4 | 6(10.2) | 3(4.3) | 11(15.9) | 10(14.5) | 5 (7.2) | -- | 34(49.3) | 69(100%) |
| 5-9 | 3(3.8) | -- | 18(22.8) | 4(5.8) | 16(20.2) | 7(8.8) | 31(39.2) | 79(100%) |
| >10 | -- | -- | 10(9.5) | -- | 84(80) | 4(3.8) | 7(6.7) | 105(100%) |
| Total | 10(3.8) | 6(2.3) | 39(14.7) | 15(5.6) | 105(39.5) | 11(4.1) | 80(30) | 266(100%)* |

*(10 employees had no child)

Table no. XXII shows that, the temporary methods of contraception were preferred till the age of last living child is less than 10yrs. The preferred method for spacing

was IUD. Permanent method of contraception was preferred till the age of last living child is 10yrs or more. The preferred method of sterilization was tubectomy.

Table 10: Current practice of contraception by Class III and Class IV employees by their literacy status

| Literacy status | Class III | | Class IV | | Total | |
|-------------------------|-----------------|-------------------|----------------|------------------|------------------|-------------------|
| | Eligible (%) | Acceptor (%) | Eligible (%) | Acceptor (%) | Eligible (%) | Acceptor (%) |
| Illiterate | -- | -- | 13(100) | 8(61.52) | 13(100) | 8(61.52) |
| Literate primary | -- | -- | 27(100) | 18(66.67) | 27(100) | 18(66.67) |
| Middle school | -- | -- | 11(100) | 8(73.72) | 11(100) | 8(73.72) |
| Secondary school | 90(100) | 54(60) | 3(100) | 3(100) | 93(100) | 57(61) |
| Higher secondary school | 64(100) | 39(60.93) | -- | -- | 64(100) | 39(60.93) |
| Graduate | 27(100) | 22(81.5) | -- | -- | 27(100) | 22(81.5) |
| Postgraduate | 9(100) | 8(88.8) | -- | -- | 9(100) | 8(88.8) |
| Total | 190(100) | 123(64.73) | 54(100) | 37(68.52) | 244(100)* | 160(65.57) |

*(32 doctors were in professional group)

It is observed from above table that as literacy level increases there is increased acceptance of contraceptives in class III as well as in class IV employees. In case of class III employees, those who had studied up to higher secondary school 93 (60.3%) were using contraceptives,

while those educated above higher secondary school 30(83.3%) were using contraceptives currently. In case of class IV employees 8(61.52%) illiterate, 26(68.4%) literate up to middle school and 3(100%) literate up to secondary school were using contraceptives currently.

Table 11: Practice of contraception by married employees according to their religion

| Employees | | Hindu (%) | Muslim (%) | Christian (%) | Boudha (%) | Other* (%) | Total (%) |
|-----------|----------|-----------|------------|---------------|------------|------------|------------|
| Doctor | Eligible | 17(100) | 3(100) | 1(100) | 9(100) | 2(100) | 32(100) |
| | Acceptor | 15(88.23) | 2(66.67) | 1(100) | 7(77.78) | 2(100) | 27(84.37) |
| Class III | Eligible | 111(100) | 18(100) | 39(100) | 17(100) | 5(100) | 190(100) |
| | Acceptor | 78(70.27) | 9(50.5) | 23(59) | 10(58.82) | 3(60.0) | 123(64.73) |
| Class IV | Eligible | 28(100) | 7(100) | 2(100) | 15(100) | 2(100) | 54(100) |
| | Acceptor | 21(75) | 4(57.14) | 1(50) | 10(66.67) | 1(50) | 37(68.52) |
| Total | Eligible | 156(100) | 28(100) | 42(100) | 41(100) | 9(100) | 276(100) |
| | Acceptor | 114(73) | 15(53.6) | 25(59.5) | 27(65.85) | 6(66.67) | 187(67.75) |

*(Other include Jain, Parasi and Sikh)

Total 114 (73%) of Hindu employees adopted contraceptive method currently. While 27 (67.85%) Boudha, 25 (59.5%) Christians and only 15 (53.6%) Muslims were practicing contraceptives currently. 88.23% doctors among Hindus while 100% doctors among Christians and others were using contraceptives while only 66.67% doctors among Muslims were using

contraceptives currently. 70.27% class III employees among Hindus while 59% among Christians, 58.58% among Boudha and only 50.5% among Muslims were using contraceptives currently. 75% class IV among Hindus, 66.67% among Boudha, 57.14% among Muslims, while 50% among Christians, were using contraceptives currently.

Table 12: Current practice of contraception by married employees by their family type

| Employees | | Nuclear (%) | Joint (%) | Total (%) |
|-----------|-----------|-------------|-----------|------------|
| Doctor | Eligible | 26(100) | 6(100) | 32(100) |
| | Acceptors | 23(88.46) | 4(66.66) | 27(84.37) |
| Class III | Eligible | 127(100) | 63(100) | 190(100) |
| | Acceptors | 90(70.8) | 33(52.38) | 123(64.73) |
| Class IV | Eligible | 23(100) | 31(100) | 54(100) |
| | Acceptors | 17(73.9) | 20(64.5) | 37(68.52) |
| Total | Eligible | 176(100) | 100(100) | 276(100) |
| | Acceptors | 130(73.86) | 57(57) | 187(67.75) |

Acceptors in nuclear families were 130 (73.86%) more, as compared to joint families 57 (57%). This is reflected in all three groups of employees.

Table 13: Deciding members for contraceptive use and nonuse in employees

| Member | Doctors | Class III | Class IV | Total |
|----------------|-----------------|------------------|------------------|-------------------|
| Self | 4(12.5%) | 7 (3.7%) | 2 (3.7%) | 13 (4.7%) |
| Spouse | -- | 62 (32.7%) | 30 (55.6%) | 92 (33.4%) |
| Both | 28 (87.5%) | 120 (63.1%) | 20 (37.0%) | 168 (60.9%) |
| Other relative | -- | 1 (0.5%) | 2 (3.7%) | 3 (2.1%) |
| Total | 32(100%) | 190(100%) | 54 (100%) | 276 (100%) |

Collective decision was observed in 87.5% doctors and 63.3% Class III and it was less in class IV (37%). Husband was main deciding member in maximum Class

IV (55.6 %) followed by 32.7% in class III employees for contraceptive use and non-use.

Table 14: Main source of advice for contraceptive use in Class III and Class IV employees

| Main source | Class III (%) | Class IV (%) | Total (%) |
|------------------|-------------------|------------------|-------------------|
| Print media | 10(5.3) | 3(5.6) | 13(5.3) |
| Friends | 43(22.6) | 11(20.4) | 54(22.1) |
| Relatives | 2(1.1) | 1(1.8) | 3(1.2) |
| Doctors | 57(30.0) | 29(53.7) | 86(35.2) |
| Electronic media | 78(41) | 10(18.5) | 88(36) |
| Total | 190(100.0) | 54(100.0) | 244(100.0) |

Main source of advice for contraceptive use was electronic media (41%) and doctors (30%) in Class III.

But it was doctors (53.71%) followed by friends (20.4%), electronic media (18.5%) in Class IV employees.

DISCUSSION AND RESULT

The National Family Planning Programme has been in operation in India since 1952. India has the unique distinction of sponsoring the first National Family Planning Programme in the developing world. Since the family planning programme was officially launched through first five-year plan, the range of contraceptives offered in the National Family Planning Programme had increased, with more emphasis on spacing methods. During this period, a great variety of ingredients have been incorporated for promoting the adoption of family welfare. Apart from clinical services being made available to the practitioners of family planning method, the widespread and intensified extension approach has been used for motivation. To assess the extent of practice of contraceptive methods, it is necessary to know the percentage practicing contraceptive method in terms of the broadest social, economic and cultural aspects of development.

1 Current practice of contraception (Acceptors and Non-acceptors)

The analysis shows that, total 67.75% of employees were adopters of contraception. The proportion was 84.38% in doctors, while in class III it was 64.73% and in class IV it was 68.5 % (Table - I). Total non-acceptors were 32.25%. More in Class III (35.27%) and Class IV (31.42%) as compared to Doctor (15.62%). Banerjee B. (2004)² observed that acceptance was 27% in working women. Kabir *et al* (2005)¹⁰ observed that women with high level jobs had fewer children and acceptance of contraceptives was high. Takkar *et al* (2005)²³ reported 81.1% class III employees of Medical Collage, Chandigarh were acceptors of contraceptives. Our findings are in conformity with study carried out by Jain and Singal (1976)⁹ who observed that 71.8% class IV, 59 % class III and 76% class II employees were using contraceptives.

Reasons for not using contraceptives currently

In doctors, recently married (40%) and incomplete family size (40%) were causes for non-acceptance while in Class III incomplete family size (62.7%) was main cause for non-acceptance and in Class IV also incomplete family size (64.7%) was the main cause for non-acceptance. (Table-II) Chowdhury and Sultana (2000)⁶ observed main reason reported was the desire to have children (45%). Infrequent sex and fear of side effects were other causes. Balaiah *et al* (2001)¹ observed that reason for non-using contraceptive was family size (58%). Chandhick *et al* (2003)³ observed that the main reason for not using any family planning method was family size not complete (34.6%). As educational qualification and service status decreases, desired family size increases in this study.

Current practice of contraceptive methods in acceptors

In the present study, the most preferred temporary (spacing) method was IUD. The proportion in doctors was 5 (18.52%) and in class III it was 32 (26.01%). While it was just 2 (5.4%) in Class IV. IUD was only temporary method used by Class IV employees. The most proffered permanent method was tubectomy. It was accepted by 11 (40.74%) doctors, 64 (52.03%) class III and 30 (81.08%) class IV employees. Vasectomy was mostly used by doctors 4 (14.81%) and class IV 5 (13.51%) and least by class III 2 (1.63%). (Table III) Jain and Singal (1976)⁹ observed that the most popular method was condom, followed by sterilization irrespective of economic grade of employees. Mohan *et al* (1981)¹⁶ found a large majority couples (65%) were using condom. The next higher popular method was IUD (8.83%). In Bangladesh, Chowdhury and Sultana (2000)⁶ observed that pill was most used temporary method (11.8%) followed by condom (2.6%) and IUD (1.7%). Sen N. (2001)²² observed 80.5%. Middle class practiced natural method while 3.4% natural method by poor class. Family planning behavioral pattern among poor reflected neglect in using spacing method and delayed acceptance of permanent method. Balaiah *et al* (2001)¹ observed that 55.3% acceptors using permanent method while 11.6 % using spacing method. Reddy *et al* (2003)²⁰ observed tubectomy was most popular method among rural areas. Banerjee B. (2004)² observed 34.5% acceptors were using permanent method (28% female sterilization and 6.5% male sterilization). Singh *et al* (2004)²² observed that compared to vasectomy (1.2%) percentage of tubectomy was greater (12.4%). Among temporary method maximum (15.2%) adopted IUD followed by conventional contraceptive (CC) 1.5 % and oral pill (0.9%). Takkar *et al* (2005)²³ observed 24.6% were using IUD and 4.5% were using rhythm method in medical college employees. In the present study, the low adoption of temporary methods of contraception, particularly by class IV employees was observed. Class IV employees had more number of living children and age of last living child was higher, thus indicating that they must have completed their desired family size and therefore adopted a permanent method of contraception. Doctors and class III employees preferred IUD may be because of its reversibility; effectiveness and non-association with intercourse.

Most preferred method in past In our study

Condom and IUD were most preferred method before first and second pregnancy for doctors and Class III, while Class IV were not using any method before first and second pregnancy. This shows that acceptance of spacing methods before first and second pregnancy in

Class III and doctors but no use of spacing method before first and second pregnancy in Class IV. (Table IV)

Current practice of contraception by age of accepters

In the present study, tubectomy was found most popular method of contraception, 11 (40.74%) in doctors, 64 (52.03%) in class III and 30 (81.08%) in class IV at age of thirty onwards. Among doctors and class III, IUD was most popular temporary method (18.52%, 26% respectively) with maximum use in age 30-34 years (40%, 57.1% respectively). Abstinence, rhythm and withdrawal method common in Class III (13.51%) in 30-34 (14.3%) and 35-39 (19.5%) years' age group (Table – V). Singh *et al* (2004)²² observed that couple had adopted permanent methods at an average age 35.8 years while adoption to temporary method was in range of 30-34 years group. Kansal *et al* (2005)¹¹ observed that maximum IUD in age group 25-29 (3.24%), and in age group 30-34 (2.61%). Maximum acceptance of permanent method was seen in age group 40-44 (60%) and 35-39 (54%). In age group 30-34 it was 40%. In present study, the greater adoption of contraceptive by those in their late reproductive ages in class IV may be largely due to their actual family size being equal or higher than their desired family size.

Number of living children and Practice of contraception by the employees

In the present study, the number of living children is an important consideration for adoption of any method of contraceptive. The proportion of currently married employees practicing contraceptive classified according to number of living children. All doctors having two children were practicing contraception, while only 56% class III and only 25% class IV were practicing having two children. Doctors accepted 100% contraception on two children while class III after four children and class IV after five children accepted contraception 100%. (Table-VI). Jain and Singal (1976)⁹ observed 11.6% were practicing contraceptive method that had no living child. 56% were practicing among those who had only one living child and 78% were among those having two living children, 84% were practicing who had four or more living children. Hussain, Fikre and Berendes (2000)⁸ observed that more the number of children more was acceptance of family planning in Pakistan. Rajaratnam T. (2000)¹⁹ observed increase in number of children increased acceptance of contraceptives. Chattopadhyay *et al* (2004)⁴ observed 28% acceptance in couple having no child to one child. 65.5% were acceptors having 2 children, 71.3% were acceptors having 3 children, and 89 were acceptors having 4 or more children. Khokhar and Mehra (2005)¹³ observed 2.9% acceptor practicing method that had no child and 34.5% were acceptors who had a one child. The analysis of present study reveals

that, most of class IV employees practice contraception after they have completed the desired family size.

Number of living children and specific method of contraception

Out of 10 employees having no child, only one was using condom while other were currently not using any method. Out of 39 employees having one child, 12(30.8%) were using IUD, 5(5.1%) were using pills, 4(10.2%) were using natural method and only one had done tubectomy while, 15(38.5) were currently not using any method. Out of 121 employees not having two children, 34(28.1%) maximum had done sterilization, 22(18.2) were using IUD, while 49 (40.5%) were currently using any method. Acceptors with three or more children had done sterilization. Out of 70 employees having three children maximum 47(52.9%) had done sterilization and only 8 (11.4%) were using spacing methods mostly IUD. While 15(21.4%) were not using any method. (Table-VII) Rajratnam (2000)¹⁹ observed adjusted proportion of women using temporary method increased from about 2% for women with no living child to above 9% for women with two living child. The figure then declined slowly as number of living children increased and reached below 4% for women with 5 living children. If women had three or more than three children they mostly done sterilization. Chhabra and Grover (2001)⁵ observed a trend in women was that after completing desired family size, many couple adopted sterilization without using spacing method. Mohanan, Kamath and Sajjan, 2003¹⁷ observed that 70.7% of women with three more children done sterilization compared to 29.3% of women having one or two children were using temporary methods among total acceptors.

Current practice of contraception by the age of last living child

In employees with last living child less than one year 66.7% doctors were acceptors, while only 25% class III and no class IV were acceptors. In employees with last child more than ten years all doctors were acceptors, while 95% class III and 85% of class IV were acceptors. (Table-VIII) This study reveals that if, the age of last living child of government employees reached ten years or more, they might have already completed desired family and thereafter they might have seriously adopted a reliable method of contraception usually permanent.

Age of last living child and specific method of contraception

Still the age of last living child 9yrs, some employees were using temporary methods. While, still the age of last child more than 10yrs employees preferred permanent methods. (Table-IX)

Current practice of contraception by married employees by their literacy status in Class III and Class IV

In the present study, total 8 (61.52%) illiterate were using contraception, 152 (65.8%) were acceptors in literate. High school classes III were 54 (60%) contraceptives user. (Table – X). Kulkarni *et al* (2005)¹⁴ found that percentage-attending school was a significant predictor of contraceptive use in the analysis. Literacy alone does not play a role in deciding of acceptance of contraception, rather it is complex interaction of many other factors, which play in role, but education is a direct and powerful indicator of status of women. Education raises favorable attitude towards small family size and improves awareness and use of family planning method. It has a direct relationship to the acceptance of spacing methods.

Our findings are at variance with the previous studies (Kaur H., 2000¹²; Chowdhury and Sultana, 2000⁶; Sen N., 2001²¹; Mohanan, Kamath and Sajjan, 2003¹⁷; Mohan, Khan and Surender, 2003¹⁶; Murthy *et al*, 2003¹⁸; Banerjee B., 2004², Mitra RG, 1993¹⁵, Khokhar and Mehra, 2005¹³).

Current practice of contraceptive according to religion

In the present study, it is observed that 73.02% Hindu, 53.6 % Muslim, 59.5% Christian, 65.85% in Boudha and 66.67% in other religion were practicing contraception amongst married employees (Table XI).Jamshedji and Pachouri (1980)²⁰ observed 87% of sterilization among Hindus and 7.7% among Muslims.Sinha R (1991)⁵⁵ observed Hindu students had more positive attitude for family planning compared to Muslim students. Khokhar and Mehra (2005)²⁵ observed that 9.5% non-acceptors highlighted ‘Religion’ as a cause of non-acceptance only in Muslims.

Table 15: Comparison of acceptance of family planning among Hindu and Muslim with previous studies

| Author (year) | Percentage of Acceptors | |
|---|-------------------------|---------|
| | Hindu | Muslims |
| Mohanan, Kamath and Sajjan (2003) ¹⁷ | 37.5 | 18.5 |
| Mohan, Khan and Surender (2003) ¹⁶ | 69.7 | 55.6 |
| Banerjee B. (2004) ² | 37.8 | 22.7 |
| Kansal <i>et al</i> (2005) ¹¹ | 55.7 | 25.6 |
| Present study (2006) | 73.02 | 64.28 |

Rajaratnam T. (2000)¹⁹ observed lower contraceptive acceptance among Muslims and Christians compared to Hindu.

Mohanan, Kamath and Sajjan (2003)¹⁷ reported 22.9% acceptance among Christians.

Current practice of contraceptive according to family type

In the present study, 130 (73.86%) were acceptors among nuclear type of family and 100 (57%) were among joint type of family. (Table XII).High acceptance (88.46%) was found among nuclear families in doctor. Low acceptance (52.38%) was found among joint families in class III employees. Mohanan, Kamath and Sajjan (2003)¹⁷ observed higher (39.8%) acceptance in nuclear type of family compared to (19.1%) in joint type of family. Banerjee B. (2004)² reported no difference in acceptance of family planning among nuclear and joint type of families. The acceptance among nuclear type was 34.3% while among joint type was 34.7.% The present findings are in conformity with Reddy *et al* (2003)²⁰, Deshpande R. (2005)⁷ and Takkar *et al* (2005)²³.

Deciding member for contraceptive use and non-use

In present study, husband and wife both were the main deciding members for contraceptive use and non-use in doctors and Class III, while husband was main deciding member in Class IV. (Table-XIII) Hussain , Fikree and Berendes(2000)⁸ observed significant predictor of contraceptive non-use was husband and family, opposition.Sen N. (2001)²¹ observed that husband dominate their wives and prevent them for adopting contraception. The present study reveals that, in doctors both (87%) were deciding members. Class III (54.2%) both were deciding members, in Class IV (37%), both were deciding members. This shows that as educational qualification and service status decreased, percentage of deciding members as both was decreased. There was husband predominance in Class IV (55.6%).

Main Source of advice for contraceptive use in class III class IV

Present study reveals that, main source and advice for contraceptive practices in Class III was spouse (46.3%), doctor (30%). But in Class IV main source were doctor (53.7%) and spouse (24.1%). (Table-XIV) It reveals that, main source for advice for contraceptive use in class IV

was doctor s compared to Class III. This might be due to Class IV were not aware about contraceptive as compared to Class III. Kulkarni *et al* (2005)¹⁴ observed that use of family planning practice was significantly higher among women who were exposed to electronic media.

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