ISSN 2321 – 7359 EISSN 2321 – 7367

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Medical Science

The International Weekly Journal for Medicine

A Sample Survey of Family Planning Practices among Married Couples In Lakshmipuram Population, South Chennai, India

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Publication History
Received: 17 February 2014
Accepted: 21 April 2014
Published: 7 May 2014

Citation
Parameaswari PJ, Udayshankar PM, Syed Iqbal Sultan. A Sample Survey of Family Planning Practices among Married Couples In Lakshmipuram Population, South Chennai, India. *Medical Science*, 2014, 8(28), 14-22

ABSTRACT

Context: An estimated 222 million couples in the third world countries would like to delay or stop childbearing but are not using any contraceptive method.

Aims: To find the Prevalence of Contraceptive usage and Proportion for Unmet need of Family Planning among Married couples.

Settings and Design: A Cross-Sectional study in Lakshmipuram area under Rural Health Training Center of our Medical College, Sripuram, South Chennai, India.

Methods and Material: A Sample study on the Contraceptive use was obtained from 429 Married Couples by Systematic Random Sampling technique and Personal Interview method.

Statistical analysis used: Descriptive statistics along with Chi -Square and Odds Ratio at 5% significance level.

Results: Among 429couples, 360(83.9) were married between 21-30years and the age at first pregnancy between 21-30 years was observed for 252(58.8) couples. A majority of 387(90.2) were from nuclear family and 315(73.4) had delayed their first child till 2 years after marriage. The spacing between first and second child was observed to be less than three years for 150(58.1) and more than three years among 108(41.9) couples. Only 243(56.6) females and 75(17.5) males had used one or more methods. 399(93.0) couples preferred tubectomy for Sterilisation.

Conclusions: Women's age at marriage between 21 to 30 years had 7.2 times (3.4 to 15.4) significant chance and those with adult marital privacy showed 8.2times (1.6 to 41.3) statistically significant chance for Family Planning Practice (FPP) with χ^2=8.7(P=0.003). The (mean±SE) spacing of Birth between 1st and 2nd child was 2.7±0.17years and 2nd and 3rd was 1.67±0.21years. Though we expect, women are empowered to postpone their second child, this does not seem to be practiced in reality.

Key-words: Household Survey, Personal Interview method, Contraceptive Usage, Birth Spacing.

1. INTRODUCTION

Globally, Percentage use of modern contraception has risen slightly from 54 to 57, between 1990 - 2012. Regionally, the proportion of women aged (15–49) reporting use of a modern method has risen minimally or plateau during 2008 - 2012. In Africa it rised from 23.0 to 24.0, in Asia it has remained at 62.0, and in Latin America & Caribbean it increased slightly from 64.0 to 67.0. There is significant variation among countries in these regions (www.who.int). Unsafe abortions accounts for 13.0percent of maternal deaths globally. Indian women were at the highest risk of abortion-related deaths in the world. Women who conceive within 6 months of delivering their last baby are 7.5 times more likely to terminate the pregnancy and to be at risk for an unsafe abortion (www.nrhm.gov.in). Use of contraception by men makes up a relatively small subset of the above prevalence rates. The modern contraceptive methods for men are limited to male condoms and sterilization (vasectomy). Worldwide, 11.3% of women of reproductive age report that they rely on one of these methods in their marriage or formal union; again there is much variation among regions and countries. In developing countries like India, the community participation to adopt small family norms is very much essential.

Rationale: In India, 12.8 percent of women (15-49) years married or in union wanting to avoid a pregnancy did not have access to or are not using an effective method of Contraception (www.who.int/gho). So, the present study was conducted on married couples with their written informed consent after clearance from the Institutional Review Board.

The main aims were to find the

1. Prevalence of Contraceptive use by Married couples
2. Proportion of Unmet need for Family Planning among those couples

2. MATERIALS AND METHODS

Study Design : Community based Cross–Sectional Study (Park, 2013)
Study period : September 2011 to August 2012
Study Area : Field Practice area (Figure 1) of Rural Health Unit and Training Center of our Tertiary care Medical College, Sripuram, South Chennai.

Sample Size: The minimum required sample size (www.bphc.hrsa.gov) was estimated to be 254 women with Proportion of 16.5 on unmet need for Family planning from our pilot study, α = 0.05, limit of accuracy 5% and an attrition of 20% using the formula, $N= [Z_{\alpha}^2 P(1-P)] / [L\%]^2$.

Sampling method: 600 couples from a Sampling frame of 5,587 married women aged 15-49 from the randomly selected Lakshmipuram block of Sripuram was selected using Systematic random Sampling. Informations on Socio-Demographic & Contraceptive practices were collected by Personal Interview method using a pretested structured questionnaire after obtaining the written informed consent in their homes. We ensured that at least one of the couple was at home during our visit and the details were cross-checked with their available records.

3. STATISTICAL ANALYSIS

The data was analyzed using SPSS 15 software and Chi square test was used to find the association between different factors and Contraceptive use along with Odds Ratio for influencing significant factors. With Type I error of 5% and a Power of 95%, $P < 0.05$ was considered Statistically Significant. The values within parentheses represent Percentages.

4. RESULTS

In the present study, we interviewed 600couples (Figure 2) and complete details were available only for 429 (response rate=71.5%) whose age ranged between 18 to 47years for women and 23 to 57 for their husbands with a family size ranging between 2 to 10 and Mean±SE(Mean) of per capita income per month as ~5469±620.5. Descriptive statistics on all parameters of the study are grouped in Tables (1 – 4) as 39(9.1) couples with No child, 135(31.5) couples with Single child, 228(53.1) couples with Two Children and 27(6.3) couples with More Than 2 Children. The mean age at menarche was observed as 13.5±0.08 years and the Mean age at marriage 20.9±0.29 years for women and 26.8 ± 0.28 years of their spouses. Couples experienced duration of marriage between 0.5 to 32 years, where women with more than three children had 19.5±1.11years as the mean age at first pregnancy. The Health

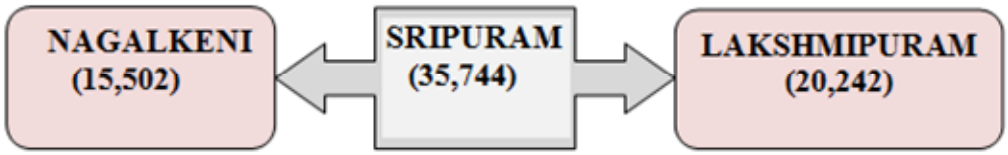

Figure 1

Population of rural community practice area, South Chennai

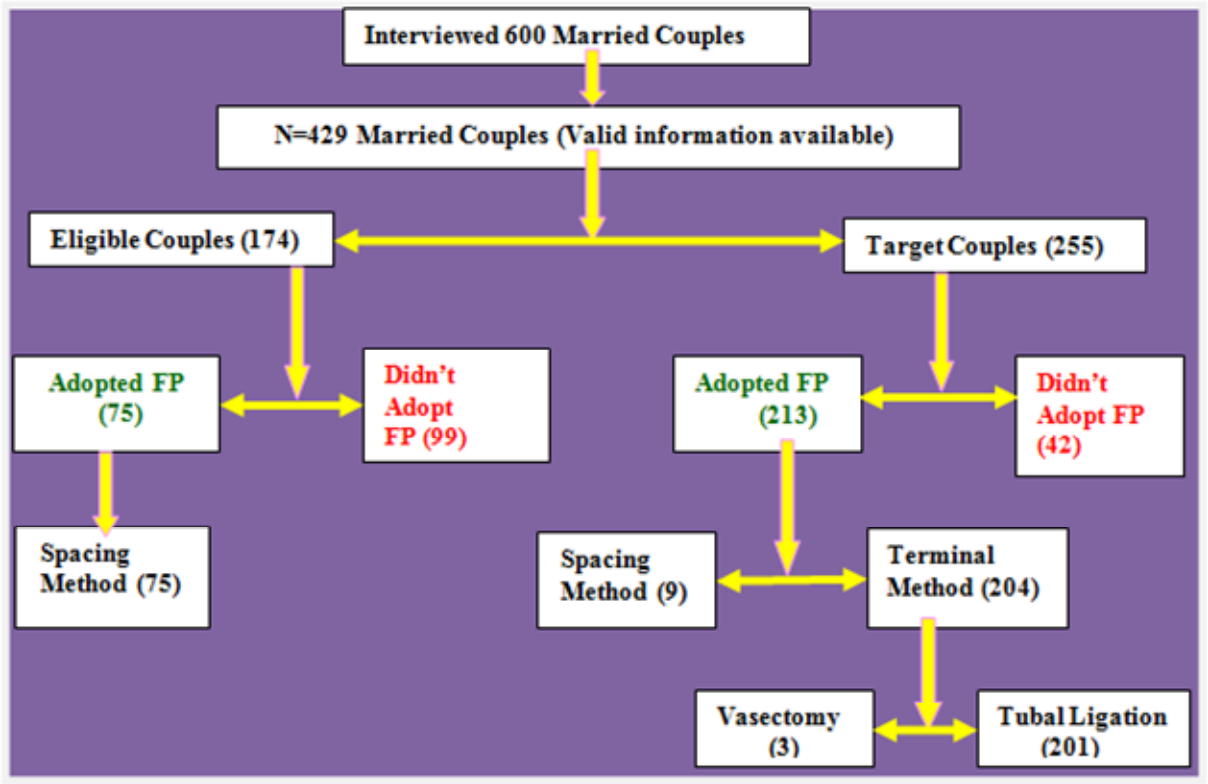

Figure 2

Flow Chart on Findings of the study

professionals including media were the main source of information for majority couples presented in Figure 3 and the Contraceptive usage in Figure 4.

The main findings of our study were

a) The Prevalence of Contraceptive usage in Sripuram was 288(67.1) with a Couple Protection Rate of 75(17.5).
b) 99(23.1)of Eligible Couples were still unprotected against Conception [unmet need for FP]
c) 42(9.8) Target Couples did not use an effective method [unmet need for FP]

Fifty One (11.9) couples were willing to undergo sterilization after one child, Three hundred and Sixty three (84.6) after two children and twelve (2.8) of them after 3 children. Couples who Owned their house showed OR=5.4 times (95% CI-2.5 to 11.6) statistically significant chance of adopting family planning practice with χ^2=20.7(P=0.000), those from nuclear family had 16.1times (3.4 to 75.6) significant chance with χ^2=19.6(P=0.000), 67.1percent literates showed significant association with χ^2 =26.7(P=0.000) and those with secondary level of education had 9.2 times (0.02 to 0.55) risk of not adopting the FP methods. Women who were less than 30 years and their husband above 30 years showed 3.8times (1.4 to 10.3) significant chance for FPP with χ^2 =8.01 (P=0.004). Couples with single child born alive had 10times chance in adopting FPP, Birth Delay above 2years showed 6.7times (1.8 to 24.3) Significant chance

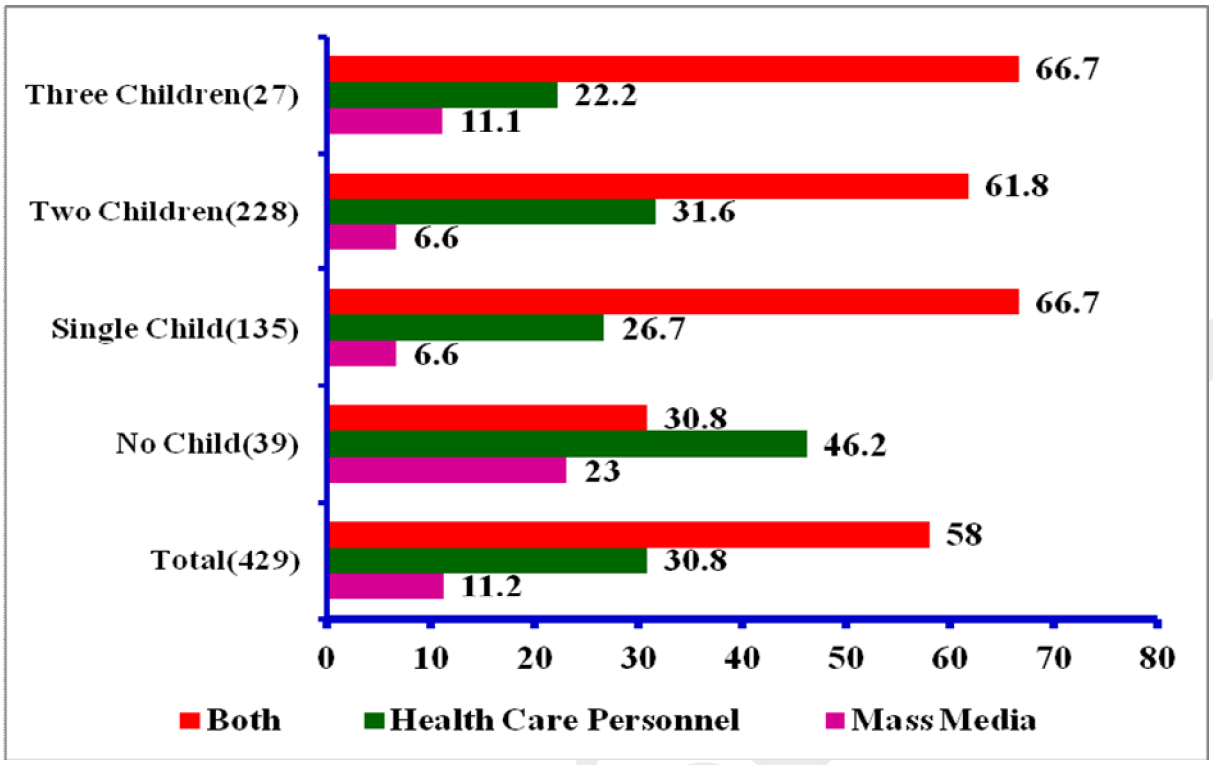

Figure 3

Source of Information on Family Planning methods (%)

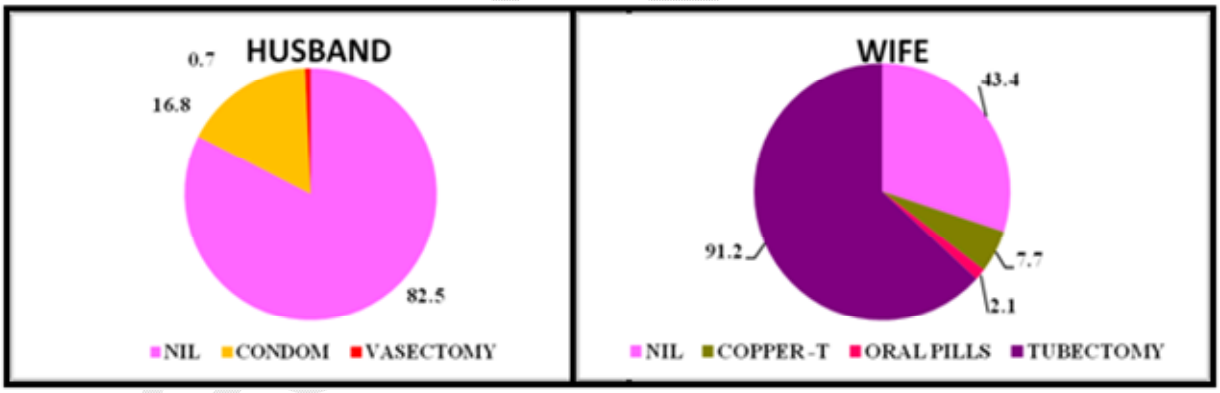

Figure 4

Family Planning Practices by 429 Married couples

and Birth Spacing between 1st and 2nd child had 9.2times (1.8 to 45.3) significant chance with χ^2 = 9.8(P= 0.004) compared to higher birth order. Awareness about FPP among males showed 5.4times (1.3 to 22.0) significant chance with χ^2 = 6.7(P=0.009) in contraceptive use. A family with more than 4 members had 3.7times (1.2 to 11.6) significant chance for FPP with χ^2 = 5.9 (P=0.01). Religion, literacy status, occupation, husband age at marriage had shown insignificant association with FPP.

5. DISCUSSION

Fifty point three percent of husband's education in our study were above secondary, but only seventeen point five percent of them had adopted Family Planning, which is observed to be a contradictory to Jayaraman et al., (2009) findings 'Husbands with higher levels of education are more likely to feel that decisions about family size should be

made together with wives'. Joint Decision making among couples, especially on family planning use, is a critical component in reaching desired family size. Failure of Contraceptive method was observed among one male and one female participant of our study. Forty eight point two percent of Indian married women were using modern methods of Family Planning (www.prb.org) and we observed sixty seven point one percent in the present study which is similar to the one experienced by the less developed countries. Public supply of modern Contraceptive devices in India was Seventy one percent compared to forty three percent in South-East Asian countries. Twenty three point one percent of couples from our study wanted to space their births which was comparatively high considered to seven and six for India & south east Asia respectively, and nine point eight percent couples wanted to limit their births much lesser to thirteen for India were the two important findings of unmet need for Family Planning (www.prb.org).

In the present study, we observed that thirty two point nine percent of the women did not use contraceptives even when they wanted to avoid pregnancy which was similar to Guttmacher (2011), findings that some women have misperceptions about their risk of becoming pregnant, while others have concerns about the side effects of modern contraceptive methods. In few cases, opposition from husbands or family members may discourage contraceptive use. Jayaraman et al. (2009) suggested that - Two processes are important in reducing demand for contraceptives among older women - sexual activity will decline, and her reproductive period will terminate (menopause). This study was done as the educational exposure of the field survey for our postgraduate students during their posting in the rural health training center area. The limitations observed were the duration of data collection and the small sample size. i.e. at least 50 percent of 5,587 women should have been included. Since, the response rate was also 71.5 percent. Advocacy measures on contraceptive use will lead us to a good response rate.

6. CONCLUSION

Reduction in maternal mortality along with a healthy gestational period is directly related with a woman's ability to space and limit her pregnancies. The great attention of our government, donor, private sector, research, non government and community partners are necessary in reaching the millions of women and couples who desire effective family planning methods. The negative impacts on the economy, environment, national and regional development efforts due to unsustainable population growth can be achieved through Family planning. In order to address the unmet need for family planning we should ensure to improve policies, enhance the efficiency of procurement and delivery of services, and ultimately to save and improve lives.

DISCLOSURE STATEMENT

There is no special financial support for this research work from the funding agency.

ACKNOWLEDGEMENT

I would like to acknowledge Professor.N.C.Appavoo for his guidance during this study.

REFERENCES

1. WHO FACTSHEET – Family planning, Fact sheet N°351, Updated May 2013, available from: http://www.who.int/mediacentre/factsheets/fs351/en/
2. Family Planning. "A choice that Saves lives". Swasth Bharat – A National Initiative, IEC Division , Ministry of Health and Family Welfare, available from: www.nrhm.gov.in/nrhm-components/rmnch-a/family-planning/background.html
3. Global Health Observatory- Unmet need for family planning. Available from: www.who.int/gho/maternal_health/en
4. Park K. 'Principles of Epidemiology and Epidemiologic methods' in Textbook of Preventive and Social Medicine, 2013, 22nd edn, Jabalpur: Banarsidas Bhanot Publishers, P.67
5. HRSA Primary care: The Health center program; 'Sample Size Calculation-Manual method', U.S. Department of Health and Human Services, available from: www.bphc.hrsa.gov/policiesregulations/performance measures/patientsurvey/calculating.html
6. Jayaraman A, Mishra V, Arnold F. The relationship of family size and composition to fertility desires, contraceptive adoption and method choice in South Asia. *Int Perspect Sex Reprod Health.,* 2009, 35(1), 29-38 [PMID: 19465346]
7. Family planning worldwide 2013 data sheet. Available from: www.prb.org
8. Facts on satisfying the need for contraception in developing countries, 2010. Available from: www.guttmacher.org/pubs/ FB-Unmet-Need-Intl.pdf
9. Dutta M, Husain Z. Balancing the Present and the Future: A Study of Contraceptive Use in Calcutta's Slums. *World Health Popul.*, 2011, 12(3), 23-32 [PMID: 21677526]

Table 1

Descriptive Statistics for Demographic variables of 429 Married Couples

Variable	Total N=429(%)	No child N=39 (%)	Single child N=135 (%)	Two children N=228 (%)	Three children N=27 (%)
1. Religion - Hindu	405 (94.4)	39 (100.0)	126 (93.3)	219 (96.1)	21 (77.8)
Christian	12 (2.8)	0	3 (2.2)	9 (3.9)	0
Muslim	12 (2.8)	0	6 (4.4)	0	6 (22.2)
2. House - Own	252(58.7)	9 (23.1)	75 (55.6)	150 (65.8)	18 (66.7)
Rented	177(41.3)	30 (76.9)	60 (44.4)	78 (34.2)	9 (33.3)
3. House type - Pucca	420(97.9)	39 (100)	132 (97.8)	222 (97.4)	27 (100.0)
Hut	6(1.4)	0	3 (2.2)	3 (1.3)	0
Kutcha	3(0.7)	0	0	3 (1.3)	0
4. Family type - Nuclear	387(90.2)	36 (92.3)	126 (93.3)	201 (88.2)	24 (88.9)
Joint	42(9.8)	3 (7.7)	9 (6.7)	27 (11.8)	3 (11.1)
5. Adult marital privacy					
Present	402(93.7)	36 (92.3)	132 (97.8)	207 (90.8)	27 (100.0)
Absent	27(6.3)	3 (7.7)	3 (2.2)	21 (9.2)	0
6. Literacy					
* Husband - Literate	411(95.8)	39 (100)	132 (97.8)	216 (94.7)	24 (88.9)
Illiterate	18 (4.2)	0	3 (2.2)	12 (5.3)	3 (11.1)
* Wife - Literate	393(91.6)	33 (84.6)	129 (95.6)	207 (90.8)	24 (88.9)
Illiterate	36(8.4)	6 (15.4)	6 (4.4)	21 (9.2)	3 (11.1)
7. Educational Level					
* Husband- Primary	30 (7.0)	3 (7.7)	9 (6.7)	18 (7.9)	0
Secondary	165 (38.5)	12 (30.8)	39 (28.9)	96 (42.1)	18 (66.7)
Higher Secondary	72 (16.8)	12 (30.8)	24 (17.8)	36 (15.8)	0
Tertiary (UG,PG)	144 (33.6)	12 (30.8)	60 (44.4)	66 (29.0)	6 (22.2)
* Wife - Primary	27 (6.3)	0	6 (4.4)	15 (6.6)	6 (22.2)
Secondary	180 (42.0)	9 (23.1)	54 (40.0)	102 (44.7)	15 (55.6)
Higher Secondary	69 (16.1)	6 (15.4)	24 (17.8)	36 (15.8)	3 (11.1)
Tertiary (UG,PG)	117 (27.3)	18 (46.2)	45 (33.3)	54 (23.7)	0
8. Occupation					
* Husband- Professional	27 (6.3)	9 (23.1)	12 (8.9)	6 (2.6)	0
Managerial	15 (3.5)	3 (7.7)	9 (6.7)	3 (1.3)	0
Skilled	321 (74.8)	24 (61.5)	102 (75.6)	174 (76.3)	21 (77.8)
Semiskilled	3 (0.7)	0	0	3 (1.3)	0
Unskilled	63 (14.7)	3 (7.7)	12 (8.9)	42 (18.4)	6 (22.2)
* Wife - Professional	12 (2.8)	0	6 (4.4)	6 (2.6)	0
Unemployed(HW)	417(97.2)	39 (100)	129 (95.6)	222 (97.4)	27 (100)
9. Personal addictive habit					
*Husband - Nil	309 (72.0)	30 (76.9)	108 (80.0)	153 (67.1)	18 (66.7)
Smoking	57 (13.3)	6 (15.4)	9 (6.7)	36 (15.8)	6 (22.2)
Alcoholic	6 (1.4)	0	3 (2.2)	3 (1.3)	0
Smoking & Alcoholic	57 (13.3)	3 (7.7)	15 (11.1)	36 (15.8)	3 (11.1)
* Wife - Nil	429 (100.0)	39 (100)	135 (100)	228 (100)	27 (100)

Table 2

Descriptive statistics for Social variables of 429 married couples

Variable	Total N=429(%)	No child N=39 (%)	Single child N=135 (%)	Two children N=228 (%)	Three children N=27 (%)
10.Age(years)					
*Husband - < 20	0	0	0	0	0
21-30	72(16.8)	18(46.2)	39(28.9)	15(6.6)	0
31-40	204(47.6)	18(46.2)	57(42.2)	117(51.3)	12(44.4)
41-50	138(32.2)	3(7.7)	33(24.4)	90(39.5)	12(44.4)
>51	15(3.5)	0	6(4.4)	6(2.6)	3(11.1)
* Wife - < 20	15(3.5)	6(15.4)	6(4.4)	3(1.3)	0
21-30	180(42.0)	27(69.2)	72(53.3)	66(28.9)	15(55.6)
31-40	192(44.8)	3(7.7)	42(31.1)	138(60.5)	9(33.3)
41-50	42(9.8)	3(7.7)	15(11.1)	21(9.2)	3(11.1)
>51	0	0	0	0	0
11. Family members - ≤ 4	342(79.7)	33(84.6)	114(84.4)	186(81.6)	9(33.3)
> 4	87(20.3)	6(15.4)	21(15.6)	42(18.4)	18(66.7)
12. SES (B.G.Prasad Jan 2011)					
>4300 (upper class)	135(31.5)	21(53.8)	63(46.7)	42(18.4)	9(33.3)
2150-4299(upper middle)	117(27.3)	15(38.5)	27(20.0)	75(32.9)	0
1290-2149(lower middle)	93(21.7)	3(7.7)	27(20.0)	60(26.3)	3(11.1)
645-1289(upper lower)	63(14.7)	0	12(8.9)	39(17.1)	12(44.4)
<645 (lower)	21(4.9)	0	6(4.4)	12(5.3)	3(11.1)
13. Age at marriage (years)					
* Husband - <20	15(3.5)	0	0	15(6.6)	0
21-30	360(83.9)	30(76.9)	114(84.4)	189(82.9)	27(100)
>30	54(12.6)	9(23.1)	21(15.6)	24(10.5)	0
* Wife - <20	207(48.3)	12(39.8)	57(42.2)	114(50.0)	24(88.9)
21-30	222(51.7)	27(69.2)	78(57.8)	114(50.0)	3(11.1)
>30	0	0	0	0	0
14. Duration of Married life (years)					
<5	102(23.8)	30(76.9)	54(40.0)	18(7.9)	0
6-10	96(22.4)	3(7.7)	27(20.0)	63(27.6)	3(11.1)
11-15	108(25.2)	3(7.7)	24(17.8)	72(31.6)	9(33.3)
16-20	60(14.0)	0	18(13.3)	36(15.8)	6(22.2)
21-25	33(7.7)	3(7.7)	12(8.9)	15(6.6)	3(11.1)
26-30	12 (2.8)	0	0	12(5.3)	0
>30	3 (0.7)	0	0	0	3(11.1)

Table 3

Descriptive statistics for FERTILITY variables of 429 married couples

Variable	Total N=429(%)	No child N=39 (%)	Single child N=135 (%)	Two children N=228 (%)	Three children N=27 (%)
15. Age at Menarche (years) - ≤13	201(46.9)	15(38.5)	72(53.3)	105(46.1)	9(33.3)
>13	228(53.1)	24(61.5)	63(46.7)	123(53.9)	18(66.7)
16. Age at 1st Pregnancy					
(years) - < 20	117(27.3)	0	30(22.2)	69(30.3)	18(66.7)
21-25	177(41.3)	6 (15.4)	66(48.9)	96(42.1)	9(33.3)
26-30	75(17.5)	0	33(24.4)	42(18.4)	0
>30	6(1.4)	0	6(4.4)	0	0
17. Children born alive - zero	36(8.4)	36 (92.3)	0	0	0
One	135(31.5)	3 (7.7)	132(97.8)	0	0
Two	231(53.8)	0	3 (2.2)	228(100.0)	0
Three	27 (6.3)	0	0	0	27(100.0)
18. Children alive at present					
Zero	39(9.1)	39(100.0)	0	0	0
One	135(31.5)	0	135 (100.0)	0	0
Two	228(53.1)	0	0	228(100.0)	0
Three	27(6.3)	0	0	0	27(100.0)
19. Birth spacing (years)					
1st & 2nd child					
< 3	150(34.9)	3(7.7)	3(2.2)	135(59.2)	9(33.3)
≥ 3	108(25.2)	0	3(2.2)	93(40.8)	12(44.4)
2nd & 3rd child					
< 3	18(4.2)	3(7.7)	0	0	15(55.6)
≥ 3	0	0	0	0	0
20. Birth Delay(years) - < 2	315(73.4)	3(7.7)	108(80.0)	186(81.6)	18(66.7)
2 – 4	35(8.1)	3(7.7)	18(13.3)	12(5.3)	2(11.1)
> 4	24(5.5)	0	9(6.7)	9 (3.9)	6(22.2)

Table 4

Descriptive statistics for FAMILY PLANNING PRACTICES of 429 married couples

Variable	Total N=429(%)	No child N=39 (%)	Single child N=135 (%)	Two children N=228 (%)	Three children N=27 (%)
21. Aware of FP					
Husband - No	30(7.0)	6(15.4)	12 (8.9)	12 (5.3)	0
Yes	399(93.0)	33(84.6)	123(91.1)	216 (94.7)	27(100)
Wife - No	30(7.0)	3(7.7)	12 (8.9)	15 (6.60)	0
Yes	399(93.0)	36(92.3)	123(91.1)	213 (93.4)	27(100)
22. FP Methods Used(yrs)					
Husband - No	402(93.7)	39(100)	120(89.0)	216(94.7)	27(100)
≤ 3	15(3.5)	0	6(4.4)	9(3.9)	0
>3	12(2.8)	0	9(6.6)	3(1.3)	0
Wife - No	210(49.0)	36(92.3)	87(64.4)	81(35.5)	6(22.2)
≤ 3	111(25.9)	3(7.7)	36(26.7)	60(26.3)	12(44.4)
>3	108(25.2)	0	12(8.9)	87(38.2)	9(33.3)
23. FP Methods Comfort					
Husband – Yes	138(32.2)	6(15.4)	39(28.9)	84(36.8)	9(33.3)
No	60(14.0)	33(84.6)	0	9(3.9)	18(66.7)
Wife - Yes	81(18.9)	3(7.7)	42(31.1)	30(13.2)	6(22.2)
No	63(14.7)	36(92.3)	0	6(2.6)	21(77.8)
24. Motivation in adopting FP Methods					
For Husband - Wife	9(2.1)	0	3(2.2)	6(2.6)	0
Doctor	3(0.7)	0	0	3(1.3)	0
Both	171(39.9)	3(7.7)	21(15.6)	132(57.9)	15(55.6)
For Wife - Husband	12(2.8)	0	3(2.2)	9(3.9)	0
Doctor	3(0.7)	0	0	0	3(11.1)
Both	6(1.4)	0	3(2.2)	0	3(11.1)
25. FP Method Failure					
- Husband - Yes	3(0.7)	3(7.7)	0	3(1.3)	0
No	54(12.6)	3(7.7)	15(11.1)	30(13.2)	6(22.2)
- Wife - Yes	3(0.7)	0	0	3(1.3)	0
No	42(9.8)	3(7.7)	15(11.1)	18(7.9)	6(22.2)
26. Preferred Sterilisation					
Tubectomy	399(93.0)	36(92.3)	123(91.1)	216(94.7)	24(88.9)
Vasectomy	30(7.0)	3(7.7)	12(8.9)	12(5.3)	3(11.1)