

A Study of Socioeconomic factors related to FP methods in reproductive age group (15-49) women in Chittur-Tattamangalam Municipality

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Abstract

Background: The population explosion is India's major problem since independence. Adoption of FP methods is the best solution to tackle it. **Objective:** to determine the extent use of FP methods in reproductive age (15-49) women in Chittur-Tattamangalam municipality (Kerala). **Methodology:** A descriptive /cross sectional study has been conducted in reproductive age group in randomly 1200 house hold adopting 30 cluster sample technique during Feb to May 2018 in above said municipality area, after getting prior concern from the respondents. The data was analysed statistically.

Results: In this study population 5172 (16% of census)– the eligible couple 1144, protected couples 436 with the age at marriage (21-25) =54%, age at first child (21-25) =59.7%, couple protection in (21-35) age group =85% and (26-30) age group =43.5%. FP coverage: oral pills 6.9%, IUD 7.2%, male condom 9.7% and female sterilization 36.3%. Some socioeconomic factors – education, income, vehicle, children study, servant maid, own house and comfort (ac/washing machine, microwave and land) shows statistically association with FP methods.

Key Word: FP methods – reproductive age group- municipal area (Kerala)

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INTRODUCTION

Introduction and Rational: India has launched FP programme in 1952. The current demographic scenario in India (census2011) – population 1.21 billion, crude birth rate 21.6, total fertility rate 2.4. As per NFHS (2015-2016), Condom 5.9%, pills 4.2%, IUD 1.9%, female sterilization 34%. In Kerala, high population density of the state is one, polices in FP programme, education, health care and land reforms contributed in the state's fertility rate to 1.6., condom 7.9%, pills 0.7%, IUD 4.6%, female sterilization 52.2% The FP programme achievement in Chittur-Tattamangalam municipality for the year 2015, 2016, & 2017 as follows:

Year	sterilization	Pills	IUD	Condom(m)	CPR
2015	67	5	140	21	-
2016	48	4	180	30	-
2017	32	1	143	3	62.23%

This data has been made us to form a hypothesis of poor performance in that area. Hence, the study has been taken to identify the extent use of FP methods related socioeconomic factors

OBJECTIVE

To identify the extent /type of use of FP methods in reproductive age-group (15-49) women. (*inclusioncriteria of pregnant and amenorrhic*)and in relationship with socioeconomic factors.

METHODOLOGY

A descriptive cross sectional study on reproductive age group (15-49) women include pregnant and post-partum amenorrhic during Feb to May 2018 in Chittur–Tattamangalam municipality, adopting ethics rules and prior consent from the respondent and by using questionnaire in 30 cluster random sample method.1200 households (16% of census population) are taken for data collection and those analysed in statistically also (*Chi-square test*). Some of the socioeconomic factors have been shown association with FP methods.

Data analysis and observations: Table No 1 --The study area population is 5172 (16% of total census 2011. (32298)) among them Hindu86.5%, Muslim 11.8%, Christian 1.8%, (which is similar to census 83%, 14.1%, 2.5% respectively). Education: literate male 99.25% and female 99.1%. Occupation: Employed in male 92.8%, female47.8%. Among them 12.5%, 54.2% in locally and 87.5%, 45.8 % in out of local area are employed in respectively. This separation may help to the spacing duration in child birth. Table No 2--With the assumption that the monthly income less 2500 as poor, 2500 to 5000 as middle and above 5000 as high income group couples, have been worked out44.3%, 25.3% and 30.4% in respectively. 88% of couples have own house. 12% of couples have rented house (this may be due to work nature). No vehicle + bicycle = 31.4% + 18.4% = poor, motor cycles (37.3%) = middle and 4 wheelers (31.4%) =

House hold items –AC/ washing machine =31.5% +11.4% = high income. Land: no land + less than 10 cents=56+17=73% =poor. In general 60% of them are in high income. Table No 3 The study shows that the user of modern contraceptive methods (oral pill, IUD, condom– m, female sterilization) is 63% and non-user is 37%. Table No 4 – Total eligible couple 1144. Among them 635 (55.5%) are 15-35 age group. At the same age group, 417 (65.67%) are sterilized with 1 to 4 child. Total sterilization 491. It is 43% to the total EC and 85 % to the total achievement in the same age group (15-35).Sterilization with 1st child (147) 30%,2nd child (259) 52.7%, 3rd child (66) 13.4% & 4th child (19) 3.9%. Table No 5 – The spacing duration in pregnancy (in parity wise) has calculated roughly for period of 3 years (0-1, 1-2, 2-3) .The average spacing duration (in months) for 1st child =22, 2nd child =27, 3rd child =28 and 4th child 29. Overall average spacing duration =26.5. The 1st and 2nd child births are account for spacing duration =1073 +758 (53 +37.5= 90.5%) and 3rd and 4th child births are account for =168+25 (8.3 +1.2= 9.5%). This shows that the occurrence of birth order is remarkably reduced in 3rd and 4th and adoption of FP methods asper theirs desire. Table No 6 – shows that 88 % couplesmarriage are taken at age group of 15-25 and among them 74 %of couples have their 1st child in the same age group. Early age group (15-20), - age at marriage is 34 %and 1st child birth is 14 %. Table No 7. The statistical association study (chi-square test/ p value) between the socioeconomic status/ characteristic variables and FP methods (oral pills, IUD, sterilization), shows these FP methods have strong association with education, income, vehicle, children study, servant maid, AC/washing machine, microwave, own land and house.

Table 1: Socioeconomic characteristic in study population

Variables	husband	wife
Religion		
Christian	22	1.8
Hindu	1037	86.4
Muslim	141	11.8
Education		
Primary	150	12.5
Secondary	473	39.4
Pre-degree	270	22.5
Degree & PG degree	300	25.0
Illiterate	7	0.6
Occupation		
Daily wage	14	1.2
Unskilled	159	13.2
Skilled	372	31.0

Agriculture	85	7.1	21	1.8
Sedentary	360	30.0	176	14.7
Professional	123	10.2	85	7.1
Others	87	7.2	626	52.2
Place of work				
Local	150	12.5	649	54.1
within dt	788	65.7	467	38.9
within state	149	12.4	49	4.1
within country	51	4.2	21	1.8
out of country	62	5.2	14	1.2

Table 2: Socio-economic status in study population

Socio-economic status	N	%
Income		
<2500 (poor)	531	44.3
2500-5000 (middle)	304	25.3
>5000 (high)	365	30.4
Own house		
Yes (high)	1065	88.8
No	135	11.3
Rented house		
Yes	143	11.9
No	1057	88.1
Vehicle		
No	154	12.8
4 wheeler (high)	377	31.4
motor cycle (high)	448	37.3
scooter & bicycle	221	18.4
Servant maid		
Yes (high)	143	11.9
No	1057	88.1
Children study		
No	99	8.2
Convent (high)	463	38.6
Govt. school	638	53.2
AC/Washing machine		
Yes (high)	378	31.5
No	822	68.5
Agriculture land(in-cent)		
No (poor)	672	56.0
<10	209	17.4
10-50	211	17.6
50-100	31	2.6
>100	77	6.4
Micro wave		
Yes (high)	137	11.4
No	1063	88.6

Table 3: User of FP methods in study population

Type of family planning methods	Use FP methods	
	N	%
Oral pills	83	7.25
IUD	86	7.51
Sterilization (female)	436	38.11
Condom (male)	116	10.13

Total 721 63.02 Total E C =1144 -user 721= 63%. Non-user = 37%.

Table 4: Distribution of Eligible couples / Protected couples (parity wise)

Age group	Eligible couples (Numbers)	Eligible couples %	Protected couples(N) 1 st child	Protected couples(N) 2 nd child	Protected couples(N) 3 rd child	Protected couples(N) 4 th child
15-20	6	0.50	3	0	0	0
21-25	110	9.60	46	34	5	1
26-30	260	22.70	55	128	26	5
31-35	259	22.60	26	58	23	7
36-40	198	17.30	9	23	5	4
41-45	150	13.11	3	6	3	1
46-49	161	14.07	5	10	4	1
Total	1144		147	259	66	19

Table 5: Spacing of duration of Pregnancy / child births

Child	< 1year (N) /M	%	1-2year (N) /M	/%	2-3year (N) /M	%	3+ year (N)	%
Marriage to 1 st child	291 -3492	24.2	633 - 15192	52.8	98 - 3528	8.2	51	4.2
1 st to 2 nd child	37 444	3.1	301 7224	25.1	174 6264	14.5	246	20.5
2 nd to 3 rd child	5 60	0.4	70 1680	5.8	52 1872	4.3	43	3.63
3 rd to 4 th child	2 24	0.2	7 168	0.6	10 360	0.8	6	0.5

N = Number of child =1st 1073, 2nd=758, 3rd=168, 4th = 25 M = months

Table 6: Distribution of Couples of Age at marriage / Age at 1st Child in study population

Couples age group	Age at marriage. Numbers.	Age at marriage. Percentage. (%)	Age at 1 st Child. Numbers.	Age at 1 st Child. Percentage. (%)
15-20	407	33.9	171	14.2
21-25	648	54.0	716	59.7
26-30	121	10.1	269	22.4
31-35	24	2.0	35	2.9
36-40	0	0	8	0.7
41-45	0	0	1	0.1
46-49	0	0	0	0
Total	1200		1200	

Table 7: Association of socioeconomic factors between FP methods

Socioeconomic factor	Oral pills use	Oral pills no use	P value	IUD use	IUD no use	P value	Couples protected yes	Couples protected NO	P value
Educated	82	977		85	1104		432	757	
Not educated	1	1	0.046*	1	10	0.024*	4	7	0.05*
Poor income	24	507		43	488		208	323	
Middle/High	59	610	0.001*	43	626	0.26	228	441	0.044*
Vehicle – Yes	78	968		77	651		372	674	
Vehicle – NO	5	149	0.001*	9	145	0.205	64	90	0.14
Child study-NO	3	96		2	97		32	67	
Child study yes	80	1021	0.204	84	1017	0.03*	404	697	0.636
Servant yes	19	124		17	126		60	83	
Servant No	64	993	0.001*	69	988	0.020*	376	681	0.136
AC/W .m – Yes	45	333		34	344		141	237	
59AC/W. m No	38	784	0.001*	52	770	0.09	295	527	0.63
Microwave Yes	27	110		19	118		46	91	
Microwave No	56	1007	0.001*	67	996	0.001*	390	673	0.476
Agri. Land yes	52	476		56	472		203	325	
Agri. Land No	31	641	0.0003*	30	642	0.001*	233	439	0.177
Own house yes	74	991		79	986		399	666	
Own house No	9	126	0.9	7	128	0.34	37	98	0.022*

DISCUSSION

The religious population of this study area (*H 86%, M 12%, Ch 2%*) is similar to the total (2011 census) population of this area (*H 83%, M14%, Ch 2.5%*). In regard to education, both male (99.25%) and female (99.1%) are higher when compare to India (male 85.7%, female 68.4%-- NFHS 2015-16).When compare to this area's acceptance of contraception and female sterilization to the T. Koringa's study in Gujarat, both are almost similar (63%, 65% of acceptance and 38.1%, 35.8% of female sterilization) in respectively. But in Bhandari et al study (Dhulikhel municipality) shows less education status (*male 95.4%, female 89.5%*) and higher contraceptive user (81.3%) when compare to this study. His sample size was only 369 couples. This study areacouples are 1144. At the same time (NFHS 2015-16), less education status (*male85.7%, female 68.4%*) and higher FP achievements (*F. sterilization 47.8%, IUD 1.5%, pills 4.5%, M. condom 5.6%*) were in India. Dr .Vijay et al conducted a study in rural Patna area, the study shows 70.87% of respondents were using permanent method and 29.13% were using temporary methods. This study shows better education status and FP user 63% and achievements. (*Female sterilization 38.11, IUD 7.5%, pills 7.25%, M. condom 10.13 %.*) Couple protection 63%. Rema V Nair et al, study has shown that a significant association between number of children and contraception usage. Women aware of sterilization, 33.7 %, 41.7 %, 2.4 %, 22.6 % had parity of 1, 2, 3 or more and none respectively. But in study area, female sterilization has seen in parity wise as with 1st child 30 %, 2nd 53 %, 3rd 13 % and 4th 4 %.

CONCLUSION

This study area has shown the similar proportion of religious population and family size (4), when compare to the 2011 census population of this municipality. The FP methods user 63 % and the coverage is (oral pills 7.25 %, IUD 7.5 %, male condom 10.13 % and female sterilization 38.11%) almost similar to the states performance. The extent and type of FP methods shows association between socioeconomic factors like education, income, occupation, properties (land and vehicle) and household items. Age at marriage: 34 %

couples married at 15-20 age group and 54 %. Age at 1st child: couples 14.2 % (15-20), 59.7 % (21-25), 22.4 % (26-30) = 96.3 % of couples have their 1stchild below age 30. The average spacing duration (in months) for 1st child =22, 2nd child =27, 3rd child =28 and 4th child 29. Overall average spacing duration = 26.5.Couples protection (paritywise): Sterilization with 1st child (147) 30 %, 2nd child (259) 52.7 %, 3rd child (66) 13.4 % & 4th child (19) 3.9 %.

Recommendation: Strengthen: Administration / Supervision / Training activities: The study area, previous year records (2015, 2016, 2017) of FP methods not showing satisfaction. The municipal area covers 29 wards. (ChitturTattamangalam) area14.71 sq.km. Anganwadi worker 24, ASHA 21 and only 2 Health worker. Population 32480. Area is scatter. 2 HWs not adequate, at least 2 more HWs post should be created. Training to the staffs should be given. Periodical review meeting /weekly/ monthly should be taken Commissioner / Health officer. At least monthly review should be taken by DHO.

Action: Municipal Commissioner / District Health Officer.

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