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Research Article

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Differentials of spousal communications and reproductive desires of couples in urban slums of Chandigarh, India

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ABSTRACT

Background: There may be conflicting responses of women and men regarding reproductive decisions. However, little is known about differentials of inter-personal communications between husbands and wives and their reproductive desires. Objectives of the study were, to investigate interpersonal communications between women and spouses regarding reproductive aspects and differentials of their reproductive desires. Also, to evaluate impact of improving spousal communications and other interventions on reproductive desires of partners.

Methods: Community-based cluster randomized interventional study conducted in urban slums of Chandigarh covering 667 women in reproductive ages and their spouses. Study variables include, socio-cultural and demographic characteristics, reproductive behaviour, contraceptive awareness and use interpersonal communications.

Results: Based on opinions of women, 78.7% couples in baseline survey and 84.9% couples in post interventional survey took decisions regarding timing of first child jointly. Last pregnancy was not desired by 38.4% women and 40.0% of their spouses. In the baseline survey 162 (24.3%) women and 161 (24.1%) men wanted to wait for next pregnancy. About 65% couples in the baseline survey and 71% couples in the post intervention survey agreed to accept unplanned pregnancies. Inter-personal relationships between husbands and wives were reportedly good by 92.1% couples in spite of male dominance in fertility related decisions.

Conclusions: Reproductive decisions like timings of first child, number of children, gap between successive pregnancies, choice and use of contraceptives, abortion of unwanted pregnancy etc. were taken jointly by couples. Couples should be encouraged for better spousal communications and taking joint decisions for attainment of desired reproductive health outcomes.

Keywords: Improvident maternity, Intended contraceptive use, Reproductive behaviour, Spousal communication, Undesired pregnancy, Unplanned pregnancy

INTRODUCTION

Reproductive behaviour of couples is influenced by several factors. However, little is known about its relation with differentials of inter-personal communications between husbands and wives. Most fertility surveys are confined to currently married women assuming that women's response reflects the preference of couples but there may be conflicting responses of women and men. Individual situations and

desires influence fertility decisions of men and women. India has patriarchal societies and usually men are the main decision makers in all aspects of life, both in urban and rural families. Men play important and dominant role as primary decision-makers in taking fertility related decisions. Women under social pressure and are often not in a position to make decisions regarding their reproductive performance. In developing countries like India, fertility decisions of women and men are also influenced by several factors and fertility desires of men may be different from those of women. Reproductive

behaviour of males and females may differ considerably in terms of desired family size, son preference, reasons of son preference, attitude towards family planning etc.¹ In NFHS-3 report fertility related information of both men and women was included for the first time.⁴ One of the goals set at the 1994 International Conference on Population and Development (ICPD) includes encouragement of men's responsibility for sexual and reproductive behaviour and to increase male participation in family planning.⁵ New perspectives on men have emerged from an evolution in thinking about reproductive health with ICPD programme of action laying down a holistic concept of reproductive health. Following ICPD, focus for the most of the reproductive health component has shifted from women to couples. Peter et al highlighted the relevance of spousal communication on male's attitude towards their partner's contraceptive use. 6 The result showed that men have a significant role to play in the adoption of contraception. Predominant roles of husbands in deciding use of contraception and even though wives may not want more children was reported.⁷ None of the previous studies except Dutta, Kapilashrami and Tiwari conducted on men's knowledge, awareness and extent of their participation in the key areas of reproductive and child health looked at agreement between husbands and wives on the unmet need for family planning.8

Communication between spouses as well as their perceptions and partner's approval of family planning etc. may have significant impact on fertility levels. Fertility desires of men may be different from those of women. An ample literature is available on womenoriented factors but literature pertaining to differentials in fertility related decisions of husbands and wives and its influence on fertility behaviour remains somewhat neglected. Moreover, studies on differences in fertility decisions of men and women in Northern India are far from conclusive. By improving spousal communications through some interventions, several desired reproductive outcomes like aversion of unplanned and unintended pregnancies, increased contraceptive use, better couple protection rate, gender equality, reduction in male dominance in taking fertility decisions, can be attained. Therefore, present study was conducted in urban slums of Chandigarh, a highly urbanized city of Northern India showing high fertility level in spite of high literacy rate.

Present study attempts to investigate differentials of fertility decisions of husbands and wives and assessing role of encouraging couple communication in averting unplanned pregnancies and unwanted births. The study has following specific objectives:

 To investigate interpersonal communications between women and spouses regarding reproductive aspects and differentials of their reproductive desires. To evaluate impact of improving spousal communications and other interventions on reproductive desires of partners.

METHODS

Present study is a part of a detailed project titled "Correlates of Improvident Maternity conducted in Urban Slum Areas of Chandigarh" sponsored by Indian Council of Medical Research (ICMR) during 2011-13, undertaken by researchers.

Study unit

Couples having wife in the reproductive age (15-49 years) along with their spouses willing to participate in the study served as study units or respondents.

Sampling design

A two-stage systematic sampling design was adopted. At the first stage, a sample of four slum areas (colonies) called primary stage units (PSU) was selected with probability proportion to size (PPS), from the sampling frame available. At the second stage, a sample of households as second stage units was selected systematically within each selected PSU. Within each household, couples having wife in the reproductive age (15-49 years) along with their spouses willing to participate in the study were selected as study units or respondents.

Optimum sample size

Data set for this study has been taken from the ICMR sponsored project undertaken. Power analysis was done to calculate optimum sample size. On the basis of pilot survey, percentage of households with improvident maternity as main outcome parameter in the project was found to be 35% and percentage of couples in the reproductive age was about 25% of total population. Assuming 90% confidence coefficient and 10% relative precision, the optimum sample size came out to be 503 households. Design effect due to selection of couples within selected households came out to be 1.26 and hence optimum sample of 634 couples was obtained. Optimum sample size was further elevated in order to adjust dropouts during the course of follow-up. Accordingly, ultimate sample included 667 women in reproductive ages and their spouses.

Study design

Community-based cluster randomized interventional study was conducted in four randomly selected urban slums areas /clusters of Chandigarh. A total of 667 women in reproductive ages and their spouses were interviewed in the baseline survey. Out of four randomly selected clusters in the baseline survey, two clusters were randomly assigned to study group and remaining two

clusters were assigned to control group. There were 348 couples in the two clusters belonging to study group receiving interventions whereas remaining 319 couples were belonging to control group who received no added intervention. Couples in the study group were provided interventions in terms of health education regarding reproductive health/fertility related issues like importance of small family, contraception, legal age at marriage, no gender discrimination, contraceptive awareness and an easy access to contraceptives, encouragement of spousal communication etc. No active intervention was given to study subjects belonging to control group. At the end of six months of interventions, changes in outcome parameters were observed. A few couples who were lost to follow-up due to any reason such as migration, nonavailability in spite of repeated visits etc. were excluded from analysis.

Study variables

variables Study included sociodemographic characteristics, reproductive behavior in terms of past/future fertility desires, fertility preferences, contraceptive choices, gender preference, contraceptive choices, interpersonal communications interpersonal relationships with spouses etc. Information was collected using a predesigned and pretested semi-structured interview schedule conducting house-to-house survey by well-trained project staff. Respondents were interviewed in privacy to collect the desired information at the respondent's home at flexible time points keeping in view of their working hours. All possible efforts including frequent visits were made to minimize non-responses. Field problems faced by survey team members during data collection were discussed time to time and solved to the extent possible.

Ethical issues

Prior approval by Institutional Ethics Committee (IEC) was granted to conduct the study.

RESULTS

socio-demographic Table presents baseline characteristics of surveyed couples. A total of 667 couples were interviewed representing different sociodemographic characteristics. There were 419 (62.8%) respondents belonging to joint families. Majority of surveyed individuals were Hindus and belonging to nuclear families. Majority of surveyed couples (89.2%) were of low socio-economic status (SES). Maximum of surveyed women were belonging to 26-35 years age group. There were 319 (47.8%) women and 328 (49.2%) men in the age group of 26-35 years. Mean ages of women and their spouses were found to be 29.67±6.80 and 32.91±7.16 years. There were 193 (28.9%) female respondents who were married before attaining 18 years of age. Mean marital ages of women and men were found to be 18.61 ± 3.21 and 21.58 ± 3.48 respectively.

Table 1: Socio-demographic characteristics of surveyed couples.

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Yes 212 (31.8) No 455 (68.2)		493 (73.9)
No 455 (68.2)	More daughters than sons	
· ,	Yes	212 (31.8)
Overall 667		455 (68.2)
	Overall	667

There were 227 (34.0%) couples having at least one daughter and 174 (26.1%) couples having at least one

son. Whereas in case of $212\ (31.8\%)$ couples more daughters than sons were observed.

Table 2: Spousal communication regarding reproductive health issues.

Communication subject (Who	Pre- intervention	survey (N=667)	Post –intervention	Post –intervention survey (N=667)		
takes decision regarding)	Opinion of wife	Opinion of husband	Opinion of wife	Opinion of husband		
First child						
Self	16(2.4)	105(15.7)	7(1.0)	80(12.0)		
Spouse	107(16.0)	4(0.6)	79(11.8)	4 (0.6)		
Both	525(78.7)	516(77.4)	566(84.9)	566(84.9)		
No response	19(2.8)	42(6.3)	15(2.2)	17(2.5)		
Second child						
Self	17(2.5)	109(16.3)	7(1.0)	80(12.0)		
Spouse	111(16.6)	4(0.6)	79(11.8)	4(0.6)		
Both	509(76.3)	500(75.0)	563(84.4)	563(84.4)		
No response	30(4.5)	54(8.1)	18(2.7)	20(3.0)		
No. of children						
Self	16(2.4)	109(16.3)	7(1.0)	80(12.0)		
Spouse	112(16.8)	3(0.4)	78(11.7)	3(0.4)		
Both	502(75.3)	494(74.1)	557(83.5)	558(83.7)		
No response	37(5.5)	61(9.1)	25(3.7)	26(3.9)		
Adoption of contraceptive						
Self	14(2.1)	105(15.7)	7(1.0)	80(12.0)		
Spouse	107(16.0)	3(0.5)	78(11.7)	3(0.5)		
Both	485(72.7)	479(71.8)	556(83.4)	556(83.4)		
No response	61(9.1)	80(12.0)	26(3.9)	28(4.2)		
Awareness of contraceptive	561(84.1)	548(82.2)	642 (96.3)	637(95.5)		
When to use contraceptive						
Self	12(1.8)	104(15.6)	6(0.9)	80(12.0)		
Spouse	106(15.9)	3(0.4)	77(11.5)	3(0.4)		
Both	484(72.6)	478(71.7)	553(82.9)	554(83.1)		
No response	65(9.7)	82(12.3)	31(4.6)	30(4.5)		
Contraceptive duration						
Self	12(1.8)	104(15.6)	6(.9)	80(12.0)		
Spouse	106(15.9)	3(0.4)	77(11.5)	3(0.4)		
Both	484(72.6)	478(71.7)	555(83.2)	555(83.2)		
No response	65(9.7)	82(12.3)	29(4.3)	29(4.3)		
Abortion of unwanted pregnancy	·					
Self	14(2.1)	104(15.6)	9(1.3)	82(12.3)		
Spouse	105(15.7)	4(.6)	76(11.4)	3(.4)		
Both	481(72.1)	474(71.1)	552(82.8)	550(82.5)		
No response	67(10.0)	85(12.7)	30(4.5)	32(4.8)		
Spouse wishes more child	233(34.9)	229(34.3)	197(29.5)	197(29.5)		
Previous pregnancy wanted	411(61.6)	400(60.0)	447(67.0)	442(66.3)		
Wanted to wait for next	162(24.3)	161(24.1)	144(21.6)	142(21.3)		
pregnancy		()	- · · (= - · · ·)			
Relationship						
Good relationship	614(92.1)	602(90.3)	636(95.4)	637(95.5)		
Get along relationship	17(2.5)	11(1.6)	11(1.6)	11(1.6)		
Not good	6(0.9)	5(0.7)	5(0.7)	4(0.6)		

Inter-personal communications between wives and husbands regarding reproductive aspects were also studied and differentials in reproductive health attitudes of men and women were investigated. Table 2 shows communications regarding reproductive health issue between women and spouses. Most of the reproductive decisions regarding reproductive issues like decision on further pregnancy, number of children, choice and use of contraceptive, timing of adoption of contraception, abortion of unwanted pregnancy etc. were reportedly taken jointly by couples. Based on opinions of women, 525 (78.7%) couples in baseline survey and 566 (84.9%) couples in post interventional survey took decision regarding timing of first child jointly. These figures were reported to be 516 (77.4%) and 566 (84.9%) respectively by spouses. In case of decision to be taken by single partner, husbands reportedly dominated over their spouses in taking decisions. In case of disagreements, female partners also accepted the fact that most of the decision were taken by their spouses alone.

Considerable number of respondent didn't respond to these issues. In absence of joint decisions regarding reproductive/fertility related decisions, 614 (92.1%) women and 602 (90.3%) of their spouse in baseline survey reported that their relationships were good even when decisions were taken by male partners. Proportions of respondents expressing good relationships were further increased to 95.4% for women and 95.5% for men in post-interventional survey. Respondents were also asked whether they are aware of fertility related desire of their spouses. A very good agreement between opinion of women and men was observed in the baseline survey, 233 (34.9%) women and 229 (34.9%) men were of the opinion that their spouses desired more child, while these figures reported to be 197 (29.5%) for both men and

women in post-interventional survey. Previous pregnancy was wanted according to 411 (61.6%) women and 400 (60.0%) men in baseline survey and 447 (67.0%) and 442 (63.3%) respectively in post-interventional survey. In the baseline survey 162 (24.3%) women and 161 (24.1%) men reported that they wanted to wait for next pregnancy. These proportions of unplanned pregnancy declined to 144 (21.6%) and 142 (21.3%) respectively in post-interventional survey.

Table 3 presents opinions of women and their spouses regarding abortion and unwanted births in pre intervention and post -intervention surveys. Majority of women as well as their spouses were of the opinion abortion was sin. There was high degree of agreement between husbands and wives regarding this issue. There were 557 (83.5%) couples in the pre-intervention survey and 584 (87.5%) couples in the post intervention survey, who were of this opinion. No significant difference was observed between opinions of wives and spouses regarding most of reproductive health related issues. Most of respondents were of the opinion that in case of unwanted pregnancy, one should accept it. Acceptance of unplanned births was found quite high among survey respondents. There were 432 (64.8%) couples in the baseline survey and 475 (71.2%) couples in the post intervention survey who agreed to accept unplanned pregnancies. Whereas, 73 (10.9%) couples in the baseline survey 56 (8.4%) in the post intervention survey were of the opinion that unwanted births should be aborted. There were 432 (64.8%) couples in baseline survey and 475 (71.2%) couples in the postinterventional survey. Other opinions regarding abortion included opinions like "it is legal", "children are God gifts", and "abortion has side effects".

Table 3: Opinions of women and their spouses regarding abortion and unwanted births in pre –intervention and post –intervention surveys.

	Pre –Inter	vention Surve	·y	Post –Inte	ervention Survey	
Attitude	Wife (N=667)	Husband (N=667)	Both (N=667)	Wife (N=667)	Husband (N=667)	Both (N=667)
Towards Abortion						
It is sin	572(85.8)	558(83.7)	557(83.5)	585(87.7)	558(83.7)	584(87.5)
Think it is legal	6(0.9)	6(0.9)	6(0.9)	10(1.5)	9(1.3)	9(1.3)
Killing an unborn child	18(2.7)	21(3.1)	18(2.7)	34(5.1)	34(5.1)	34(5.1)
Children are god gift	17(2.5)	15(2.2)	15(2.2)	11(1.6)	11(1.6)	11(1.6)
Has side effect	36(5.4)	36(5.4)	35(5.2)	27(4.1)	27(4.1)	27(4.1)
Elder do not approve	4(0.6)	3(0.4)	3(0.4)	6(0.9)	6(0.9)	6(0.9)
Regarding Unwanted B	irths					
Accept it	459(68.8)	434(65.1)	432(64.8)	477(71.5)	477(71.5)	475(71.2)
Abort it	83(12.4)	73(10.9)	73(10.9)	58(8.7)	56(8.4)	56(8.4)
Not Certain	49(7.3)	49(7.3)	49(7.4)	84(12.6)	85(12.7)	83(12.4)
Others	2 (0.3)	1(0.1)	1(0.1)	3(0.3)	1(0.1)	1(0.1)

Table 4: Differentials of reproductive choices of women and spouses in study and control groups.

	Study group		Control gro	Control group	
Reproductive Choice	Survey-I	Survey-II	Survey-I	Survey-II	
	348	348	319	319	
Current/past fertility desires					
Two or less children desired by wife	276(79.3)	253(72.7)	138(43.2)	164(51.4)	
Two or less children desired by husband	254(72.9)	254(72.9)	138(43.2)	165(51.7)	
Desired At Least One Son by both	224(64.4)	223(64.1)	119(37.3)	144(45.1)	
Desired at least one daughter (couples)	256(73.6)	237(68.1)	123(38.6)	146(45.8)	
Desire of more children by wife/husband	104	108	73	58	
Contraceptive choices					
Contraceptive knowledge of wife	275(79.0)	333(95.7)	286(89.7)	309(96.9)	
Contraceptive knowledge of husband	263(75.6)	330(94.8)	285(89.3)	307(96.2)	
Contraceptive knowledge of couples	278(79.9)	333(95.7)	286(89.7)	308(96.6)	
Among couples with uncertain/unplanned birth spacing	154(83.7)	153(75.0)	166(75.5)	159(72.3)	
Among couples wanted birth spacing	59(80.8)	51(79.7)	67(77.0)	59(75.6)	
Among couples not wanted birth spacing /completed family size	65(71.4)	57(71.3)	7(58.3)	9(42.9)	
Overall use of spacing methods	278(79.9)	261(75.0)	240(75.2)	227(71.2)	
Future Intentions to use contraceptives					
Future intention to use contraceptive by wife	205(58.9)	249(71.5)	209(65.5)	232(72.7)	
Intended contraceptive use by husband	190(54.6)	248(71.2)	210(65.8)	231(72.4)	
Future intention to use contraceptive by both	209(60.1)	251(72.1)	210(65.8)	232(72.7)	
Other fertility choices					
Children are god gift (wife)	11(3.2)	5(1.4)	6(1.9)	6(1.9)	
Children god gift (husband)	9(2.6)	5(1.4)	6(1.9)	6(1.9)	
Good inter-personal relationship	315(90.5)	330(94.8)	299(93.7)	306(95.9)	
Last pregnancy wanted (wife)	174(50.0)	197(56.6)	237(74.3)	250(78.4)	
Last pregnancy wanted (husband)	169(48.6)	194(55.7)	231(72.4)	248(77.7)	
Last pregnancy desired (couples)	149(42.8)	176(50.6)	198(62.1)	203(63.6)	

Table 4 shows comparison of some fertility related outcome parameters of interest in the study and control groups. There were two clusters selected at random in the study group receiving intervention in the form of health education and remaining two clusters were assigned to control group. Respondents belonging to both study and control groups were surveyed at the baseline/pre-interventional survey as well as at the end of follow-up. Outcome parameters in both the groups were compared with baseline results. No significant changes in the proportions of husbands and wives desiring two or less children, was observed for the study group. However, control group showed better outcome in this aspect. Desires of having 3 or more children among wives were also reportedly decreased. Contraceptive knowledge of women as well as their spouses was found to increase significantly in both the groups. Extent of changes in knowledge status of couples regarding contraception were comparatively more in study group (from 79.9% to 95.7%) as compared to that in control group (from 89.7% to 96.6%). Hence, health education can play an important role in increasing awareness regarding contraception. Also changes in contraceptive prevalence rates in study

group (from 57.7% to 68.1%) was comparatively more in study group as compare to that in control group (from 56.7% to 62.6%). There was increase in both awareness and practice of spacing as well as permanent methods for both groups but better outcomes were observed for study group. For the study group, unmet need of contraception was reduced from existing level of 41.2 to 29.6% while it came down from 38.0% found in baseline survey to only 35.5% for the control group. Use of permanent methods increased among couples who have already attained their desired family size. Proportion of unplanned pregnancies showed more increments for study group as compared to that for control group. Spacing methods were being used even without proper planning and objectives, even by those couples who wanted no more children. There were 64.8% couples in the baseline survey and 71.2% couples in the post intervention survey who agreed to accept unplanned pregnancies. In post interventional survey 84.9% couples reported to take decision regarding timing of first child jointly.

The overall percentage of couples wanting no more children in the present study came out to be 52.0% with

no significant difference between opinions of women and their spouses in the baselines survey which was increase to 56.8% in the post intervention survey. Respondents were also asked whether they intend to use contraceptives in future. In pre interventional survey, 414 (62.1%) women and 400 (60.0%) spouses expressed such intentions. In post interventional survey these figures were found to be 481 (72.1%) women and 479 (71.8%) of spouses. Intended future uses of contraception by couples were also increase to larger extent in the study group (from 60.1% to 72.1%) as compare to that in control group (from 65.8% to 72.7%) Health education also showed some positive impacts in improving husbands-wife communication and their attitudes regarding reproductive health issues. At the end of follow-up, less number of respondents was of the opinion that "children are God gift". Proportion of having good relationship in study group rose from 90.5% to 90.4% as compare to that from 93.7% to 95.9% in the control group. Proportion of unwanted pregnancy according to women and men were also decreased to larger extents in study groups. For other outcomes in terms of improvements in breast feeding behaviour and reduction in marital violence, desired outcomes could not be attained except some as shown in this table.

Comparisons of characteristics shown in table-4 in the post intervention survey alone shows that study and control groups were not similar with respect to several characteristics. Several other parameters like fertility desires also showed improvements study/intervention group as compared to control group. Proportions of husbands and wives desiring two or less children were observed less for the study group. In the study group, 68.1% couples expressed desire to have at least one daughter as compared to only 45.8% in the control group at the end of follow-up. Study group also differed in terms of more contraceptive use. However, intended future use of contraception by couples was reported less. Also, spousal communications were not improved to the desired extent.

DISCUSSION

Most of the reproductive decisions like timings of first child, planning next pregnancy, number of children, use of contraceptive, timing of adoption of contraception, abortion of unwanted pregnancy etc. were reportedly taken jointly by couples. There were 64.8% couples in the baseline survey and 71.2% couples in the post intervention survey who agreed to accept unplanned pregnancies. In post interventional survey 84.9% couples reported to take decision regarding timing of first child jointly.

Present study reported good inter-personal relationships between husbands and wives in spite of male dominance in some of the fertility related decisions, when the disagreed with each other. There were 92.1% women and 90.3% of their spouse in baseline survey who reported

that their relationships were good. High degree of agreement was obtained between husbands and wives regarding reproductive health issues in the present study. Concordance of 93.5% was observed amongst husbands and wives regarding unmet need of family planning.⁷

Findings of the present study contradicts findings of a previous study conducted in slum of Delhi which reported that wives were consulted on reproductive matters by only 21% of the husbands and in most cases (54%), the decisions were initiated by the husbands only.⁸ Whereas, reproductive behaviour of males and females in slum of Delhi were also found to differ considerably in terms of desired family size, son preference, attitude towards family planning etc. and wives were consulted on reproductive matters by only 21% of the husbands and in most cases (54%), the decisions were initiated by the husbands only.⁸ Also, these findings disagree with Peter et al reporting significant role of men in adoption of contraception and observed about 37% respondents taking joint decision on when to have another child.⁶ The overall percentage of couples wanting no more children in the present study came out to be 52.0% with no significant difference between opinions of women and their spouses in the baselines survey which was increase to 56.8% in the post intervention survey.

In the present study, last pregnancy was not desired by 38.4% women and 40.0% spouses and most of reproductive matters regarding pregnancy, timing and number of children were jointly decided by both partners. Contraceptive choices, use and future intentions of contraceptive use were also discussed jointly by majority of couples in both study and control groups. In the NFHS-3 survey the percentage of women wanting no more children was found to be 32%. Decisions on all aspects of reproductive processes such as when to have the first child, the number of children, the choice of contraceptive methods, adopting a contraceptive, the time of adoption and length of its use, unwanted pregnancy and abortion or taking wife and children to hospital etc. were primarily taken by husbands in an earlier study also conducted in slum of Delhi⁸. In that study, more than half of the men (58%) admitted that they could discuss the matter only after birth of the second child and in majority of the cases (54%), it was the husband who initiated the discussion.

Most of reproductive health decisions were jointly taken by both partners in the studied community and good interpersonal communications between husbands and wives were observed except male dominance in some selected decisions. Opinions of couples towards reproductive related issues suggest some modifications like encouragement of spousal /fertility communication in existing reproductive health strategies as potential solutions of problems of rapid population growth and continuously declining sex ratio. On the basis of present results it can be concluded interventions towards better husband-wife communications have some positive impact on fertility desires of couples. Couples should be educated to take joint decisions maintaining better spousal communications for attaining desired reproductive health outcomes. By improving spousal communications, several desired reproductive issues like aversion of unplanned/unintended pregnancies, increase in contraceptive awareness and use, better couple protection rate, gender equality, reduction in male dominance in fertility decision making, can be addressed. Need is also felt for exploring further studies on fertility behaviour and establishing its relationship with decisions of husbands and wives and concordance between their personal communications.

CONCLUSION

Interpersonal relationships of Indian couples are reportedly good in spite of male dominance in some decisions. Introducing efforts for encouragement of spousal communication in existing reproductive health strategies may be potential solutions of problems of rapid population growth and continuously declining sex ratio. By improving spousal communications and imparting health education, several desired reproductive issues like aversion of unplanned/unintended pregnancies, increase in contraceptive awareness and use, better couple protection rate, gender equality, reduction in male dominance in fertility decision making, can be addressed.

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REFERENCES

- 1. Gupta MD: Death clustering, mothers education and the determinants of child mortality in Rural Punjab. Indian Popn Studies. 1990;44:489-505.
- Population Policies and Family Planning Programmes in India: A Review and Recommendations, Prof. K Srinivasan, Dr. C Chandrasekhran Memorial Lecture 03.02.06. IIPS, Mumbai.
- 3. Towards Population Stabilization by Ashish Bose Bulletin of Nutrition Foundation of India. 2000.
- National Family Health Survey (NFHS-3). 2006-07, International Institute for Population Sciences, Mumbai, India, ORC Macro, Maryland, USA, October 2000.
- United Nations: Programme of action adopted at the International Conference on Population and Development (Cairo), New York, UN: 115, 1995-96.
- 6. Ogunjuyigbe PO, Ojofeitimi EO, Liasu A. Spousal Communication, Changes in Partner Attitude, and Contraceptive Use Among the Yorubas of Southwest Nigeria. Indian Journal of Community Medicine. 2009;34(2):112-6.
- 7. Yadav, Singh KB, Goswami K. Unmet Family Planning Need: Differences and Levels of Agreement between Husband-Wife, Haryana, India Indian Journal of Community Medicine. 2009;34(3):188-92.
- 8. Dutta M, Kapilashrami MC, Tiwari VK. Knowledge, Awareness and Extent of Male Participation In Key Areas Of Reproductive and Child Health In An Urban Slum Of Delhi Health and Population-Perspectives and Issues. 2004;27(2):49-66.

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