INTENTION NOT TO USE CONTRACEPTION: A STUDY OF PUNJAB, UTTAR PRADESH, KERALA AND ANDHRA PRADESH BASED ON NFHS DATA

Dissertation submitted to the School of Social Sciences, Jawaharlal Nehru University in partial fulfillment of the requirements of the award of the Degree of

MASTER OF PHILOSOPHY

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Certificate

This is to certify that the Dissertation entitled **"Intention Not to Use Contraception :**

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Data", submitted by **Ms. Rima Ghosh**, in partial fulfillment of the six credits out of

the total requirements of twenty four credits for the award of the Degree of Master of

Philosophy (M. Phil) of the University, is a bonafide work to the best of our

knowledge and may be placed before the examiners for examination.

(Professor Harjit Singh)

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To 'Ma' and 'Baba'.......

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Rima Ghosh
Rima Ghosh

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CHAPTER I

INTRODUCTION

India has crossed the one-billion mark of population in May, 2000. At present, annually 15.5 million people are added to the population of India. Such high additions are enough to neutralise the efforts to sustain the economic development and contain resource depletion. Therefore there is a need for explicitly integrating population into economic and development strategies as specified by the ICPD, Cairo (United Nations 1995) which will both speed up the pace of sustainable development and poverty alleviation and contribute to the achievement of population objectives and an improved quality of life of the population. The National Population Policy, 2000 also points out the urgent need for stabilising population which is not only 'an essential requirement for promoting sustainable development with more equitable distribution' but 'is as much a function of making reproductive health care accessible and affordable for all, as of increasing the provision and outreach of primary and secondary education, extending basic amenities including sanitation, safe drinking water and housing, besides empowering women and enhancing their employment opportunities, and providing transport and communications'.

India was among the first countries of the world to introduce and launch a Nation Family Planning Programme in the 1950s. Since then the crude birth rate of 39.9 per thousand in 1951 has fallen to 28.3 per thousand in 1995.

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The Total Fertility Rate (TFR) of India, which represents the average number of children a women would give birth to, at the current fertility rates, at the end of her reproductive life span, is 3.35 (NFHS, 1992-93) and represents a drop of about 2 children per woman over the past two decades. But it is much higher than the replacement level fertility of 2.1. It is also higher than the wanted level fertility of 2.9 i.e., the average number of children that ever married women age 13-49 said that they wanted on being interviewed (Pathak et al., 1998).

Therefore much more needs to be done to bring down the TFR further in the near future and one step towards this apart from others is increasing the contraceptive prevalence rate. An important dimension of contraceptive usage that calls for focussing, is future intentions regarding contraceptive usage of Indian women.

An analysis of intention not to use contraception in future of those women who are not currently using will yield valuable understanding of the socio-economic and demographic milieu conducive to encouragement of contraceptive use. The study of intention regarding family planning when dovetailed with that of current contraceptive use will probably provide a better understanding of the factors that influence use of family planning methods. By identifying the factors that influence future intention to use contraception and the hurdles and obstacles to such use, the family planning program efforts can be directed to potential group of users. By examining at the reasons for non-intending to use contraception in future, the programme can zero in on necessary measures to make the specific audiences change their attitude regarding the use of contraception.

Allowing and facilitating women to realize their reproductive choices and goals, was one of the recommendations of ICPD, Cairo 1994 and meeting the needs of those who intend to use contraceptive goes to fulfill that objective. The intention to use contraception also important on social-development grounds. As Jean Derez (2000) points out... "more can and should be done in India in the grounds of family planning Indeed, providing convenient and informed access to contraception (including non-terminal methods) is an essential component of the social-development approach, much neglected in India so far."

INTENTION NOT TO USE CONTRACEPTION IN INDIA

Before we examine the "intention not to use contraception", it will be useful to present the overall scenario in India. The perusal is also essential for selecting the states for the study.

The National Family Health Survey, 1992-93 showed that the current contraceptive prevalence is moderate with 41 percent of the currently married women using any method. In other words 59 percent of currently married women are not using contraception. Table 1.1 shows, there is considerable variation of this percentage across the major states. Among major states it varies from 36.7 percent in Kerala to 80.2 percent in Uttar Pradesh. Other than Uttar Pradesh the states where the percentage of currently married women not using contraception is higher than the national average are Bihar, Madhya Pradesh, Rajasthan and Orissa. Thus all the BIMARU states have very low contraceptive prevalence. Along with

Kerala the states where pecentage of women not using is lower than 50

percent are Himachal Pradesh, Maharashtra, West Bengal and Punjab.

The National Family Health Survey, 1992-93 asked all currently-

married women who were not using contraception at the time of the survey

whether or not they intended to use contraception in the future. At the national

level, the percentage of currently married women who do not intend to use

stands at 17.1 percent. There exists wide variations across the major states,

from 51.7 percent in Bihar to 15 percent in Punjab.All the BIMARU

states show high levels of intention not to use. Bihar is closely followed

by Uttar Pradesh (49.6 percent) and Rajasthan (40.2 percent).In Madhya

Table 1.1. Percentage of currently married women not using and not intending to use contraception by major states, India,1992-93

STATES	Not Using	Not Intending to Use	
		Incl. women wanting children	Excl. women wanting children
India	59.0	17.1	8.2
Andhra Pradesh	53.0	32.5	19.1
Assam	57.2	26	13.2
Bihar	76.9	51.7	25.1
Gujarat	50.7	24	15.6
Haryana	50.3	15.6	8.4
Himachal Pradesh	41.6	16.6	8.3
Karnataka	50.9	30	14.8
Kerala	36.7	16.1	10.7
Madhya Pradesh	63.5	33.8	11.1
Maharashtra	46.3	29.8	14.2
Orissa	63.7	38.6	18.1
Punjab	41.3	15	9.1
Rajasthan	68.2	40.2	15
Tamil Nadu	50.2	32.2	18.1
Uttar Pradesh	80.2	49.6	23.1
West Bengal	42.6	19.5	11.8

Source: National Family Health Survey 1992-93, All India Report,

International Institute of Population Sciences (IIPS),Mumbai.

Pradesh and Orissa, the percentage is 33.8 and 38.6 respectively.As already mentioned the percentage of women who do not intend to use contraception is lowest in Punjab. Other states where the percentage is lower than the national average are Haryana, Kerala and Himachal Pradesh. West Bengal also has a low percentage of currently married women not intending to use contraception (19.5 percent). The percentage is higher than 30 percent in all the southern states except Kerala together with the BIMARU states and Orissa.

The NFHS further asked currently married women not intending to use contraception in future what were the main reason for their non-intention.The reasons can be classified into the following categories : (I)want children which includes 'wants more children', 'wants a son' and 'wants a daughter'; (ii) fear of side effects including 'afraid of sterilization', 'can't work after sterilization' and 'worries about side effects'; (iii) can't have children comprising reasons 'hard to get pregnant','health does not permit' and 'menopausal difficulties / had hysterectomy' ;(iv) opposed to family planning including 'against religion', 'opposed to family planning', 'husband opposed' and 'opposition from others'; (v) supply of contraception comprising 'hard to get methods' and 'costs too much'; (vi)'lack of knowledge of contraception'; and (vii) others like 'methods inconvenient', 'doesn't like existing method' and 'other'.

As table 1.2 shows at the all India level, the most commonly cited reason is want children , which was reported by 52

Table 1.2.Reasons for not intending to use contraception among currently married women by major states,India, 1992-93

STATE	Want children	Fear of side effects	Can't have children	Opposition to family planning	Supply of contraception	Lack of Knowledge	Others
India	52	6	20	9	1	4	9
Haryana	46	3	36	8	0	1	5
Himachal Pradesh	50	2	30	5	0	3	8
Punjab	39	4	44	2	0	1	9
Rajasthan	63	7	15	7	1	4	4
Madhya Pradesh	66	6	12	4	1	5	7
Uttar Pradesh	53	3	15	11	1	7	10
Bihar	51	6	20	12	1	5	6
Orissa	53	9	20	5	1	4	9
West Bengal	40	2	33	11	1	1	12
Assam	49	5	23	6	2	7	7
Gujarat	35	11	26	16	0	5	7
Maharashtra	52	5	25	8	0	2	9
Andhra Pradesh	59	9	23	3	0	3	3
Karnataka	50	14	22	8	1	1	4
Kerala	34	7	29	18	0	2	10
Tamil Nadu	44	11	27	5	0	2	12

Source: Same as Table 1.1

percent of the women. 20 percent of the women said that they did not intend to use contraception because they 'can't have children'. 9 percent reported 'opposition to family planning' as the main reason and only 6 percent indicated the problem of side effects. Only 4 percent of the women manifested lack of knowledge of contraception.

The states also follow a similar pattern with wanting children and can't have children as the two most important reasons. In Gujarat, Karnataka and Tamil Nadu, the reason of side effects is important with over 10 percent of the women reporting it. 'Opposition to family planning has been reported by over 10 percent of the non-users in Uttar Pradesh, Bihar, West Bengal, Gujarat and Kerala. It is surprising to note that opposition to family planning in Kerala is stated by high proportion (18 percent) of women in spite of high contraceptive prevalence (63 percent) in the state. According to Ramesh et al. (1996) the reason may be found in the large Muslim population of the state.

The above paragraph shows that a considerable proportion of women do not intend to use contraception because they want to have children. It will be interesting to consider the intention not to use contraception when we exclude such women. The percentage of currently married women not intending to use contraception excluding women wanting children stands at 8.2 at the all India level. The percentage is highest in Bihar (25.1 percent), followed by Uttar Pradesh (23.1 percent). It is then followed by Andhra Pradesh (19 percent), Orissa and Tamil Nadu (18.1 percent), Gujarat (15.6 percent) and Rajasthan (15 percent). In Karnataka, Maharashtra, Assam, West Bengal, Madhya Pradesh and

Kerala the percentage ranges between 10 percent and 15 percent. The percentage of women not wanting children and not intending to use contraception is lowest at Himachal Pradesh (8.3 percent). In Haryana and Punjab, it is 8.4 and 9.1 respectively.

AREA OF STUDY

The wide interstate variations with regard to percentage of currently married women not using contraception and percentage of currently married women not intending to use contraception form the basis of selection of states. The states selected are Punjab and Uttar Pradesh from the North and Kerala and Andhra Pradesh from the South of India.

The reason for selection of states from north and south of India is due to the wide disparity between the regions. The northern and southern states of India differ not only culturally but also socio-economically. Southern women have higher levels of literacy, enjoy greater freedom and higher levels of employment whereas northern women are mostly illiterate and less likely to be employed. Demographically, the southern states are characterized by relatively lower fertility, later age at marriage, low infant and child mortality and relatively higher sex-ratio of female to male. (Dyson and Moore, 1983). This broad generalization, however, does not imply that the regions are homogenous and cognate in themselves- there exists variations within the regions.

As table1.1 shows in the north, Punjab has the lowest percentage of percentage of women not using contraception (41.3 percent). Punjab also has the lowest percentage of women not intending to use contraception including women wanting children (15.0 percent) .Excluding women wanting children it has the third lowest percentage of women not

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intending to use contraception (8.3 percent).Though Haryana has the lowest percentage of women not intending to use contraception when we include women wanting children, it has not been selected, as it's percentage of women not using contraception is not the lowest in the north. Similarly Himachal Pradesh was not selected. We selected Uttar Pradesh as the state representing other end of the spectrum. This is because Uttar Pradesh has a high percentage of currently married women not using contraception (80.2 percent) compared with Bihar and it's percentages of women not intending to use contraception is only slightly lower (49.6 and 23.1 percent respectively) than those of Bihar.

In the south Kerala has the lowest percentage of currently women not using contraception (36.7 percent). It also has the lowest percentage of women not intending to use contraception in the south both including women wanting children (16.1 percent) and excluding them (10.7 percent). Andhra Pradesh has the highest percentage of currently married women not intending to use contraception (53 percent) in the south. It has also the highest percentage of women not intending to use contraception when we include women wanting children (32.5 percent) and when we exclude them (19.1 percent).

OBJECTIVES

The objectives of the study are :

i)   To analyze the various social, economic and demographic factors that influence intention not to use contraception both including women wanting children and excluding women wanting children.

ii)   To bring out the difference as regards these factors in the northern and southern regions.

iii)   To examine the differences in the influence of the factors between the respective states of the two regions.

ORGANISATION OF THE CHAPTERS :

The study is spread over five chapters. A review of literature ispresented in the next chapter. Chapter III develops a conceptual framework for the analysis and describes the data and methodology employed. Chapter IV examines in detail the analytical results of the factors influencing the intention not to use contraception in future. The last chapter concludes thestudy by suggesting certain policy implications that the government can pursue for improving the contraceptive usage.

REVIEW OF LITERATURE

The present chapter reviews earlier research done by various scholars on the different factors that influence future intentions regarding contraception. The literature review also contains research studies on `contraceptive usage' which is related to intentions to use contraception.

The review of literature is broadly arranged in the following manner : (i)demographic variables, (ii) social variables, (iii) economic variables, (iii) others and (iv) intervening variables. Demographic variables include number and sex of living children, and experience of child loss. It is followed by social variables like literacy and level of education, place of residence and religion, economic variables including work status of women and standard of living and the residual category, exposure to mass media. Intervening variables include spousal communication and family planning approval by husband, desire for children, woman's health seeking behaviour and user's perception of quality of care. The national and state level studies are followed by international studies under each of the variables.

DEMOGRAPHIC VARIABLES

Number and sex of living children

Various studies have shown that number and sex of living children have considerable influence on acceptance of family planning method. Son

preference is a major determinant of contraceptive use. Kulkarni et al.,(1997) analyzed data of NFHS (1992-93) and tried to measure son preference using three indices of perception regarding the ideal number of sons, index of actual behaviour and a combination of expectations based on actual situations among non-sterilized women. The perception regarding the ideal number of sons showed that among 25 states, Rajasthan had the highest value of son preference index, followed by Gujarat and Bihar, while Tamil Nadu had the lowest son preference. However, the index of actual behaviour revealed that the maximum son preference prevailed in Uttar Pradesh and Rajasthan, while it was the lowest in Kerala and Tamil Nadu. A combination of expectations based on actual situation among non-sterilized women revealed son-preference to be highest in Manipur and lowest in Andhra Pradesh and Kerala. Son preference declined with the improvement of education and standard of living. On the whole, son preference was relatively high in high fertility states and relatively low in low fertility states. Examination of son-preference, the desire for additional children and contraceptive use revealed that only in Kerala, women who have reached ideal family size irrespective of the number of sons, used contraception. In Himachal Pradesh, Punjab and Maharashtra if both ideal family size and ideal number of sons were achieved, 90 percent wanted no more children and 80 percent used contraception.

Gulati (1996) found that son-preference is much higher in the demographically backward state of Uttar Pradesh than in the advanced state of Kerala. He suggests that higher female education and employment, improvement in status of women, introduction of social security systems and insurance schemes and curbing of cultural and religious practices which

enhance the son's status in the society should help to reduce parent's desire for at least two sons and thus increase the pace of fertility decline. Raju and Bhat (1995) detected that in rural areas of Mandya district of Karnataka, family planning acceptors had more live births and living sons, while non-acceptors had more female live births and less number of living children. The average acceptor of family planning had 3.4 live births and 1.9 living children. The average non-acceptor had 2.2 live births and 1.9 living children. Ramesh et al., (1996) observed that in India as a whole and in most states, contraceptive use increased sharply with number of living sons upto two sons and levels off thereafter. The pattern remains unchanged even if education and residence are controlled. Rajaratnam (1995) from a study in rural Karnataka concluded that contraceptive use increased steadily as the number of living children increased upto 4 and the number of male living children increased upto 3. Couples with all male living children are less likely to use contraception than couples with both males and females.

Irudaya et al., (1996) however, are of the view that the intensity of son-preference has declined over the years. The desire for additional sons among couples already with one son has also declined, along with the influence of son preference on use of permanent methods of contraception. They say, the small family norm is gaining acceptance among the younger generation Indian couples, especially in the southern and western states.

Studies in countries other than India also found the importance of number of living children and son-preference on the use of family planning methods. Mahmood (1997) observed that in Pakistan, contraceptive use was highest when both spouses wanted no more children and had 4-5 living

children, of whom 1 or 2-3 were living sons. When only the husband wanted no more children the couple's practice of contraception was the highest at parity 0-3 and 2-3 living sons. By analyzing data of 1990 KAP survey in Matlab, Bangladesh, Khan (1996) have shown that the number of living children followed by number of living sons are the best predictor for contraceptive use. A study in Chitwana district of rural Nepal during the period 1981-90, showed a large peak in the use of permanent methods of contraception among women with 2 sons (46 percent of women); peak in temporary use occurred among women with only 1 son (35 percent of women) using temporary methods. Couples with 2 sons were thirteen times more likely to use permanent methods than couples with no sons (Stash, 1997). Mazumdar et al. (1996) observed, that sex composition of surviving children continues to be an obstacle to increasing contraceptive prevalence rate in rural Bangladesh. Contraceptive use increased with increase in number of living sons in a low-income community in Karachi (Lasee and McCormick, 1996). Rahman et al. (1992), while admitting the strong and significant effect of gender preference on contraceptive use of women in Matlab in Bangladesh (studied over a period of 60 months), however observed that acceptance and continuation of contraception are lower among couples who have only sons, than among those who have children of both sexes.

Son preference is not altogether missing in developed countries. Krishnan (1993) found mothers with two sons were significantly more likely to use contraception than those with two daughters in Canada, as found in 1984.

Woman's experience of child loss

Child mortality has significant influence on future contraceptive behaviour of women. Srivastava (1991) studied white-collar workers in Lucknow who had at least one living child. He concluded that couples who have experienced the loss of a child are less likely to want to cease having children than couples who have experienced no loss; couples whohave lost a child tend to want larger completed families; and motivated by 'child replacement' and 'child insurance' couples who have lost a child in the early stage of childbearing are less likely to practice family planning. Couples who had lost a child tended to move to higher birth orders for child replacement purposes, than couples who had not lost a child. The loss of a child generally had a negative impact on the use of family planning irrespective of the socio-economic background and the age of the mother.

Rahman (1996) found out that after controlling for other variables, child death had a very large negative and significant effect on contraceptive use regardless of the number of surviving children in Matlab district of Bangladesh. The probability that parents whose index child died will accept contraception was only 0.15 times that of those whose index child survived.

SOCIAL VARIABLES

Place of residence

Urbanization is often cited as an important factor that increases the level of contraceptive use. According to Dreze (2000), urbanization reduces fertility because children are less likely to contribute to household production and more difficult to supervise in an urban setting. Fertility decline, if

considered as a part of 'diffusion process', is likely to proceed at an accelerated pace in urban areas due to the greater exposure to mass media and wider opportunities available to observe and discuss the lifestyles of other social groups.

Ramesh et al. (1996) has found out that if education is controlled, urban-rural differences in contraceptive use is substantially reduced in India as a whole and for most states.

In Tunisia and Morocco, urban/rural residence is found to be a strong correlate of method failure and method discontinuation (Esseghairi et al., 1991).

Level of education of women

Education has great effect on use of contraception as shown by several studies. In a study of 1992 Morocco Demographic and Health Survey, Curtis and Westoff (1996) observed that female education had positive relation with intention to use contraception which is in fact, a strong predictor of subsequent use.

Dwivedi (1992) studied 1987 data from 16 major states of India and found that 'literacy' contributed greatly to motivating couples to accept sterilization and had a direct negative effect on IUD use. From these findings, Dwivedi goes to suggest that further improvement of literacy in the states will exert strong and immediate effect on sterilization acceptance.

Level of education attained by women also has significant effect on contraceptive acceptance. Gulati (1996) observed that female education beyond the middle school increases the use of contraception in the states of

Kerala and Uttar Pradesh. Stash (1997) from a study in rural Nepal found that women's schooling, especially from grades 0-5 and grade 6 and above, had significant and positive effects on adoption of permanent family planning methods.

Education of the spouse is also important in determining contracting behaviour of women. Chowdhury et al., (1992) found contraceptive continuation rates were higher for women with literate husbands. Rajaratnam (1995) from a study of four districts of rural Karnataka found education of both partners was significant in predicting contraceptive use.

Alimoeso (1986), in searching for factors affecting the use and non-use of contraception in urban areas of Indonesia, observed that among socio-economic factors husband's education was one of the important factors to influence contraceptive use.

Religion of women

Religion is one of the important determinants of choice and acceptance of contraceptive method (Bhende and Kanitkar, 1993). Many studies have documented the higher adoption rate of contraception among Hindus than Muslims (IIPA 1995, Jolly 1978, Kanitkar and Murthi 1983). Ramesh et al., (1986) have shown that religion has a substantial effect on contraceptive use, even after controlling for educational effect. Muslims were seen to have much lower contraceptive prevalence in the nation and most states, with the exceptions of Delhi and Madhya Pradesh. Kulkarni and Choe (1998), explained that Muslim women are less likely than women of other religious groups to 'want no more children', and Muslim women who want no

more children are less likely than other women to use contraception. Shariff (1995) however argues, that inspite of socio-economic backwardness of Muslims, the rate of increase in use of contraception was higher among Muslims than among Hindus in the period 1980-88.

Bhat and Rajan (1989) mentioned the positive influence of high proportion of Christian population on contraceptive prevalence in Kerala. Gulati (1996) even after controlling all the important predictors of contraceptive use, found it was significantly lower among Muslims vis-à-vis the Hindus and other religious groups in both the demographically advanced state of Kerala and demographically backward state of Bihar. Rajaratnam (1995) in a study of rural Karnataka mentions that contraceptive use was more likely among caste-Hindus and non-Hindus.

ECONOMIC VARIABLES

Work status of women

Work status of women is one of the indicators, which determine her economic independence and status in the household and in the society. Basu (1992) concluded working women have higher opportunities to interact with the outside world which exposes her to new ideas which could bring a change in her attitudes towards family size and the use of contraception. A study of family planning acceptance among 1453 married women in 26 villages near Lucknow, found that acceptance was significantly higher among working women than non-working women (Singh,1960).

In a study of fertility in Turkey, Nurshert and Shapler (1968) found that while 64 percent of working women showed interest in using contraception,

only 40 percent of self employed women and housewives showed interest in family planning.

Standard of living

Standard of living of the household indicates the economic condition of the respondents and acts as a proxy variable when data on per-capita income is not available.

Kanitkar and Murthy (1983) came across a positive relationship between the standard of living and the use of contraception in Rajasthan and Bihar. They had prepared a standard of living index based on the type of house, source of lighting, source of drinking water, toilet facilities, and ownership of bicycle, radio/transistor, watch and sewing machine.

Dwivedi (1992) found per-capita income had more impact on sterilization acceptance than did urbanization in 16 major states of India. It had the maximum direct positive effect on acceptance of conventional contraceptives. Bagle and Kaur (1972) found that income is positively related to the adoption of contraception in the two industrial cities of Bombay and Hyderabad.

According to Bhende and Kanitkar (1993), low standard of living of people is responsible for lower use of contraception and high fertility in developing countries.

OTHER VARIABLES

Exposure to mass media

Exposure to mass media has considerable influence on contraceptive use. A study of NFHS data by Ramesh et al., (1996) revealed that regular exposure to electronic mass media has a large effect on contraceptive use, even after controlling for residence and education, in India; the percentage using contraception was 20 points higher among those women who were regularly exposed to media than those who were not. Singh and Yadava (1997) found that in rural Uttar Pradesh mass media exposure was positively related to contraception.

Westoff and Bankole (1997) opined that modern western ideas about consumer values, control over one's life and non-familiar roles of women can be communicated through the media and influence people even in rural settings and with little education. Their findings from Demographic and Health Surveys conducted during the 1990s in Burkina Faso, Ghana, Kenya, Madagascar, Namibia and Zambia showed a strong association between exposure to mass media and reproductive behaviour in Africa that leads to greater knowledge and use of contraception, intention to use, family size preference for fewer children and intention to stop childbearing. Of all these, the most consistent reproductive behaviours associated with exposure to mass media were knowledge of contraceptive methods, intention to use contraception, current use and age at marriage. The study also concluded that radio had the strongest influence on reproductive behaviour, followed by print media and television. In Ghana mass media has an impact on contraceptive behaviour, even when other socio-economic and attitudinal variables are

controlled (Olaleye and Bankole ,1992) . Those who agree with the idea of family planning messages through the media are more likely to be users or intended users. However, they do not rule out reverse causation in the relationship of the two variables.

Other studies also point towards the positive correlation between exposure to mass media and use of contraception (Cochrane and Guilkey, 1995; Alimoeso, 1986).

INTERVENING VARIABLES

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Spousal Communication

Communication between husband and wife often determines the acceptance of family planning methods. Curits and Westoff (1996) concluded spousal communication about family size had positive relation with intention to use contraception in Morocco. In Pakistan, higher intention to use contraception and contraceptive use was related to husband and wife communication and couple's approval of family planning (Mahmood and Ringheim, 1993) . Mitchell (1972) reported, in HongKong, women who do not want more children are more likely to practice family planning if they have high levels of verbal communication with their husbands. Wives in high communication marriages tend to start practicing fertility control earlier than those scoring lower on the communication index. The lowest levels of husband-wife communication were found among couples with low incomes and low levels of education. Lasee and Becker (1997), from a study in Kenya have showed that husband wife communication, in particular the wife's

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perception of her husband's approval of family planning is highly associated with current contraceptive use.

Husband's approval of contraceptive use

Husband's approval is an important factor influencing contraceptive use. Studies have shown that men and women differ in their desired family size. In general, men want more children (Isuigo-Abanihe 1994, Lloyd 1993, Mason and Taj 1987, Mott and Mott 1987). Husbands, therefore, oppose the use contraception. In case of disagreement between the husband and wife regarding desired family size, the husband's views usually prevail, even when the wife is educated (Casterline et al., 1995; Ezech 1993). Mahmood (1997), while studying the role of gender differences in fertility desires on reproductive control behaviour concluded that, among couples who differed in their fertility desires, the use of contraception was higher among those of whom only the husband wanted no additional child than those of whom only the wife wanted to stop childbearing. Contraceptive use was more when both spouses approved of family planning.

Desire for more children

Desire for more children and unattained ideal family size is often cited as reasons for non-use of contraception. Bulatao and Cheung (1986) feel lower ideal family size and considering a smaller number of children optimal in relation to economic costs both lead to earlier contraceptive initiation. Curtis and Westoff (1996) observed that results of the 1992 Morocco Demographic Health Survey showed that women who wanted no more children were more likely to use contraception.

Women's health seeking behaviour

Women who are concerned about the health of her family are favourably disposed towards contraception. Many studies have shown that women who have used maternal and child health services are more likely to use contraception subsequently. Two studies of integrated MCH and family planning programs in North Africa confirmed that such combined programme can increase contraceptive acceptance beyond levels achieved by family planning services alone (University of North Corolina, 1997) . In Morocco, women who used maternal-child health services intensively were significantly more likely to go on to adopt a modern contraceptive method than women whom used these services less. Three processes were assumed to explain these findings: (i) use of prenatal care fosters interaction between pregnant women and the health system, thereby increasing the likelihood of communication with family planning personnel,(ii) women's use of prenatal care may lower costs of access to information about contraception and reduce the likelihood of receiving misinformation and (iii) utilization of contraception can be linked with utilization of maternal and child health services if doctors, nurses and midwives offer family planning information while providing prenatal care.

Magnani et al., (1995) analyzed Demographic Health Survey reports of Morocco, 1992 and found that intensive use of MCH services results in significantly greater likelihood of contraceptive usage when the effects of other variables are controlled statistically. Zerai and Tsui (1995) by studying DHS

data also came to the same conclusion about Bolivia but found it was not important in Botswana largely because of universal access to prenatal care.

Perception about quality of care

The quality of care of family planning programme often determines the level of utilization of contraceptive services.

Assessment of quality of care of family planning programmes have raised several arguments, but most agree that it is best possible from the user's perspective. Jain (1989) and Bruce (1990) defined quality in terms of the way individual couples are treated by system providing services. According to Giridhar and Paharia (1995) quality is not what the provider assumes, while it is the one perceived by client who is availing family welfare services.. Roy and Verma (1995) also hold the same view, that the client's perception should form the focal point while assessing quality of care. Jain (1989) recognizes three stages when quality of care is important-at preacceptane counseling and clinical checkup, quality of care during acceptance and during post acceptance follow-up.

A study in rural Uttar Pradesh found that perceptions that family planning services were of poor quality is one of the important reasons for non-use (Levine et al., 1992).

Koeing et al., (1997) came across compelling evidence of the important effect of quality of care on contraceptive behaviour in rural Bangladesh. Clients more likely to continue contraceptive use, if they perceived a high quality of care from the field workers. Higher standards of care were also associated

with a 27 percent increase in subsequent adoption of contraception by non-users.

The review of literature presented above is used to frame a conceptual framework in the next chapter. Subsequent analysis of intention not to use contraception is based on the conceptual framework.

CONCEPTUAL FRAMEWORK

A conceptual framework is a useful tool for understanding the relationship between the key concepts, which are to be examined from the empirical data. A conceptual framework for the analysis of intention not to use contraception in future has been developed on the basis of the literature review of the last chapter.

Figure 3.1 shows the conceptual framework used for the analysis of intention not to use contraception. This variable is influenced by several independent or predictor variables broadly classified as demographic, social, economic and others. The predictor variables affect the dependent variable of intention not to use contraception directly, as well as through the intervening variables of spousal communication about family planning, approval of family planning by husband, desire for more children, woman's health seeking behaviour and user's perception of quality of care.

The demographic variables included are age of woman, number of living sons, and experience of child loss. The social variables include, place of residence, educational level of women, religion and caste or tribe of women, the economic variables are work status of women and their standard of living. Exposure to mass media is another variable that is included in the framework.

Even though some of the independent variables are related with each other and relationship among the intervening variables also exist, the study is

Figure 3.1 : A Framework for Analysis of Intention not to use contraception

DEMOGRAPHIC VARIABLES	→	Spousal Communication regarding children
Age of woman		
Number of living sons		
Experience of child loss	→	Husband's approval of the use of contraception
SOCIAL VARIABLES		
Education of the woman		
Place of Residence	→	Desire for children
Religion of the woman		
Caste of the woman		
ECONOMIC VARIABLES	→	Woman's Health Seeking Behavior
Work Status of the Woman		
Standard of Living		
OTHER VARIABLES	→	User's perception of the quality of services
Exposure to the mass media		

INTENTION TO USE CONTRACETION

only restricted to the unidirectional relationship of the dependent variable on the independent and intervening variables. The following paragraphs elucidate how the various independent and intervening variables influence intention not to use contraception.

DEMOGRAPHIC VARIABLES

Age of woman

Age is an important determinant of future intentions regarding contraception. However the effect of age on intentions is not simple. The proportion of non-users who do not intend to use in future decreases till the middle reproductive age groups as they have almost completed their desired family size. At older ages the proportion increases because these women may already be using contraception and thus drop out of the non-user group or may feel they have attained menopause and thus see no need to use contraception (Ramesh et al., 1996).

Number of children /sons.

As the literature review shows, number of living children is an important factor that influences intention not to use contraception. The intention decreases with number of living children till the level of 2-3 children, beyond which it increases in most states of India. There are two reasons for this - firstly, as potential users reach their desired number of children, they tend to use contraception and thus do not show in the non-user group and second, because older women have lower fecundity and thus do not feel the need to use contraception. (Ramesh et al., 1996) .

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However, the number of living sons is always a better indicator than the number of living children in the case of India, where son preference and consequent low status of women is all pervasive (Arnold et al., 1998). Studies in India have highlighted three dimensions of the utility of having a son - economic, social and religious. Economic utility of having a son arises since he is seen as a wage earner, assistant in agricultural production and above all, as a security in old age. Social utility emanates from the kinship and descent system, status of family in society provided by son and the premium to be expected from having a son in the form of dowry payment. Religious utility stems from performance of sacred rites like lighting the funeral pyre of both parents by sons (Miller, 1981; Bardhan, 1988; Basu 1989; Karve, 1965; Kapadia, 1966; Dyson and Moore, 1983; Caldwell, Reddy and Caldwell, 1989). In societies such as that of India, where son preference is strong, intention not to use contraception will depend more on number of living of sons rather than number of living children.

Experience of child loss

A woman's experience of child loss is another important variable which is likely to affect intention not to use contraception. It has been found that couples who have experienced the loss of a child are less likely to want to cease having children than couples who have experienced no loss. Couples who have lost a child tend to want larger completed families, especially if they have lost a child in the early stage of child bearing. It implies that a woman who has lost a child will be less inclined to use a family planning method in future if she has not replaced the dead child.

SOCIAL VARIABLES

Place of residence

Place of residence is likely to affect future intention of not using contraception because of various reasons. Compared with rural women urban women usually have better access to contraception, information about contraception, and also to health care providers in case they have a problem using contraception (Mishra et al., 1999). Therefore they are less likely to have intention not to use contraception.

Education level of woman

Education of a woman is a pivotal determinant of her social status in the society, other than such factors as her economic contribution to the family, the independence she enjoys, the extent of female autonomy in the society, her exposure to mass media, which singly and collectively influence her decision making power. In fact, education of women is the most crucial factor among these for it most often directly determines the level of other factors which in turn affect female autonomy. Female autonomy translates into specific autonomy of reproductive decision making.

Educated women are aware of their reproductive rights because they have more access to information through the mass media, particularly the print media. Educated women are motivated to control fertility as they understand less number of children ensures better standard of living. In a country like India, educated women may have reduced son preference and female

education reduces infant and child mortality as well and thus ensures need to have fewer births.

Finally and most important, educated women with her awareness has increased bargaining power in the family. They are usually articulate and discuss with their partners about sexual relations, family planning and children. Spousal communication as will be shown later has an important bearing on intention not to use contraception in future.

Thus we can see, that education is likely to reduce intention not to use contraception. Curtis and Westoff (1996) observed that female education has positive relation with intention to use contraception which is in fact a strong predictor of subsequent use.

Religion

Religion is an important social variable which has considerable influence on demographic behaviour of particular religious groups. Religious affiliation determine customs and practices regarding marriage, norms about childbearing and family planning practices and status of women which in turn affects societal levels of fertility. There exists substantial differentials in the socio-economic and demographic profiles of major religious communities.

The current social norm and attitude of a religious community may affect the acceptance of family planning. If a religion strictly prohibits artificial contraception to control natural fertility, the woman of that religious group will not be using contraception even if she wants to space or limit her births. However, the extent to which the relationship holds true if the various socio-

economic and demographic variables are controlled is debatable (Dreze,2000).

Caste/tribe of women

The population of India is composed of diverse groups in terms of their ethnic and socio-cultural attributes. Besides professing different religious faiths, belonging to different castes and tribes, is another peculiar feature of the socio-cultural aspect of the population. Each of the caste-groups hold a definite position in the hierarchical ordering of the society. In this socio-economic hierarchy the scheduled castes and scheduled tribes are the most deprived and disadvantaged groups.

The scheduled castes of India are concentrated in the rural agricultural areas, mainly in the alluvial and coastal plains. They are prominently landless agricultural labourers or cultivators with small landholdings. They are also traditonally the artisans or serving particularly in "polluting" or "dirty" services or industrial workers of traditional crafts like leather tanning, shoe-making etc. The scheduled tribes, on the other hand are clustered and concentrated in areas of poor accessibility i.e. the areas which are generally socially and economically backward. Such circumstantial settings of the SCs and STs influences intention not to use contraception.

ECONOMIC VARIABLES

Work status of woman

A woman who is economically employed enjoys a better status in the society and has more decision making power regarding matters concerning

herself and her family. Employment also raises the opportunity cost of a woman's time and thus motivates her to control fertility and avoid repeated child bearing. Since she is more exposed to the outside world, she has access to information of various contraceptive methods and their sources. When desire to control fertility and knowledge of method and source of contraception complement each other, the women will intend to use contraception in future if not already using.

Moreover, employment is likely to give her a status vis-à-vis her husband to discuss matters of household, children and family planning.

Standard of living

Standard of living index is used as a proxy variable for level of income of the households for practical difficulties of ascertaining the latter. Standard of living index is a good indicator of economic well being of the family. The intention not to use contraception is expected to be lower for women from families with high standard of living. Such women are educated, exposed to mass media and thus have greater knowledge of contraceptive methods and better access to family planning services.

OTHER VARIABLES

Exposure to mass media

As discussed in the previous chapter, there exists a strong association between the mass media exposure of women and their reproductive behaviour. Westoff and Bankole (1997) are of the view that modern western ideas about consumer values, control over one's life and non-familiar roles of

women can be communicated through the media and influence people even in rural settings and with little education. Electronic mass media educates women on small family norms and informs about methods and source of contraceptive methods. Thus mass media is an important source of motivation for contraceptive usage in future.

INTERVENING VARIABLES

Spousal communication

The significant relevance of communication between the spouses for acceptance of family planning method is substantiated by various studies. Spousal communication about family size has positive relation with intentions to use contraception (Curtis & Westoff, 1996). Spousal communication implies discussion between the husband and wife about family size and children and therefore decisions about seeking contraception, choice of method and timing of their use. Discussions help couples to be aware of each others perspective about family planning and they can arrive at a consensus on reproductive behaviour.

Husband's approval of use of contraception

The role of the husband's decision in matters relating to contraceptive use and the timing and number of births is a crucial determinant of the wife's contracepting behaviour. This is particularly true in a patriarchal society like that of India. The decisions regarding the type and time period of contraceptive use is taken by the husband. The husband's approval depends on such factors

like his background characteristics, especially education, his attitude towards contraception and his desired family size.

The husband's view, however, is not correspondingly influenced by that of his wife. As Bankole and Singh (1998) pointed out from their study of developing countries that even when women are educated and motivated to practice contraception, they may not do so because of opposition from their husbands. Thus the women who do not intend to use contraception in future are likely to be those whose husbands do not approve of using contraception or want more children, so that the women are not currently using contraception. As Mahmood (1997) explained, among couples who differed in their fertility desired the use of contraception was higher among those of whom only the husband wanted no additional child rather than among those of whom only the wife wanted to stop child bearing.

Desire for children

The relationship between desire for children and intention not to use contraception is quite clear. Women who have higher ideal family size and have not completed their desired family size are the ones who desire to have more children. Therefore they do not intend to use contraception in future.

Woman's health seeking behaviour

A woman who is concerned about the general well being of her family members will also be inclined to control fertility. This ensures lesser number of children, so that she can give more time to the family members. A woman who is so aware of 'health' will we predisposed towards the utilization of modern

methods of prevention and cure of diseases. Generally, it can be expected that a woman who is educated, employed and exposed to the mass media and thus more knowledgeable about the outside world will seek better health facilities. Such a woman, for instance, who has used prenatal and antenatal care, comes to know of the advantages of contraception and thus intends to use them in future.

Perception of quality of care

Perception of quality of care of family planning services is an important determinant of contraceptive behavior. Better information services, efficiency of family planning services providers and good follow-up services enhance the rating of overall family planning programme. This encourages contraceptive adoption and continuation and therefore lower intention not to use contraception in future.

The above conceptual framework is now going to be employed to develop hypotheses and analyze intention not to use contraception in future.

HYPOTHESES :

Based on the relationships explained in the previous section, the following hypotheses have been formulated.

(i)   Older women have more intention not to use contraception.

(ii)   Women with more number of living sons have lower intention not to use contraception.

(iii)   Women who have experienced child loss have higher intention not to use contraception.

(iv)   Urban women have lower intention not to use contraception.

(v)   Higher the educational level of a woman, lower the intention not to use contraception.

(vi)   Working women have lower intention not to use contraception than non-working women.

(vii)   Higher the standard of living of a woman, lower the intention not to use contraception.

(viii) Women who are exposed to the mass media have a lower intention not to use contraception.

(ix)   Women, who communicate with their husbands regarding their desired number of children, have lower intention not to use contraception.

(x)   Women who have their husband's approval of contraception have lower intention not to use contraception.

(xi)   Women who wants to have more children have higher intention not to use contraception.

DATA :

The data used in the present study is obtained from the National Family Health Survey (NFHS), 1992-93, conducted between April 1992 and September 1993. The study was co-ordinated by the International Institute of population sciences, Mumbai with the help of eighteen population research centers, throughout the country, the East-West center, Honolulu, Hawaii and Macro International in Calverton, Maryland.

The survey covered over 89,000 ever-married women of age group 13 - 49 of 24 states and the union territory of Delhi; the survey thus qualifies to be

the largest of its kind in the subcontinent. It provides national and state level estimates of fertility, infant and child mortality, family planning practice and maternal and child health.

In this study, we have used information from four sections of the Women's Questionnaire- respondent's background, contraception, fertility preferences and husband's background and women's work section. However, the data corresponding to women's health seeking behaviour and their perception of quality of care being inadequate in the survey, these variables could not be used in the study. The measurement of other variables are described below.

MEASUREMENT OF VARIABLES

This section explains the measurement of dependent and independent variables.

Dependent Variables:

The dependent variable is intention not to use contraception in future. Currently married women who were not using any contraceptive method at the time of the interview i.e. the non users of contraception, were asked whether they intend to use contraception in future. 'Intention not to use contraception' is classified on the basis of 'wanting children' status into - intention not to use contraception (i) including women wanting children and (ii) excluding women wanting children. The respondents were included on the basis of main reason given by them for not intending to use contraception in future. Those who said they want children or want son or want a daughter, were excluded from the second dependent variable and included in the first.

The dependent variables defined above, have been coded as follows:

(i) Intention not to use including

women wanting children (Y_1) = 1 - Do not intend to use

0 - Intend to use

(ii) Intention not to use excluding

women wanting children (Y_2) = 1 - Do not intend to use

0 - Intend to use

Independent Variables:

The coding schemes of the independent variables used in the analysis are as follows:

(i) <u>Age of woman (X_1)</u> : Based on age, women have been grouped into 3 categories of 13-24 years, 25-34 years and more than 35 years. Women 13-24 years have been taken as the reference category for women in the other two age groups. The coding scheme for 'age of women' is as follows:

X_{1a} = 1 - 25-34 years

0 - 13-24 years

X_{1b} = 1 - 35 years and above

0 - 13-24 years.

(ii) <u>Number of living sons (X_2)</u> : Based on the number of living sons, women are classified as:

X_2 = 1 - More than 2 living sons

0 - Less than or equal to 2 living sons.

(iii) <u>Experience of child loss (X_3)</u> : Based on whether a woman had ever given birth of a child who later died, women have been classified as:

X_3 = 1 - Experienced child loss

0 - Did not experience child loss.

(iv) <u>Residence (X_4)</u> : The Place of residence of women has been coded as:

X_4 = 1 - Urban

0 - Rural

(v) <u>Education level of women (X_5)</u> : Women, on the basis of their education level attained, are classified as illiterate, literate but not middle school complete, middle school complete but not high school complete and high school complete and above. The category illiterate women is the reference category. The coding scheme for this variable is as follows:

X_{5a} = 1 - Literate but not middle school complete

0 - Illiterate

X_{5b} = 1 - Middle school complete but not high school complete

0 - Illiterate

X_{5c} = 1 - High school complete and above

0 - Illiterate

(vi) <u>Religion of women (X_6)</u> : Hindus has been taken as the reference category for Muslims, Christians, Sikhs and other religions. The coding scheme is as follows :

X_{6a} = 1 – Muslims

0 - Hindus

X_{6b} = 1 - Christians

0 - Hindus

X_{6c} = 1 - Sikhs

0 - Hindus

X_{6d} = 1 - Others

0-Hindus

(vii) <u>Caste of women (X_7)</u> : Women have been classified according to their caste status as:

X_7 = 1 - Non-scheduled caste or scheduled tribe women

0 - Scheduled caste or scheduled tribe women

(viii) <u>Work status of women (X_8)</u> : According to the National family Health Survey, 'work' is any kind of job, for which the woman is paid in cash or kind and also unpaid work of the woman on a family farm or business. Thus, women are classified according to their work status as:

X_8 = 1 - Working

0 - Not working

(ix) <u>Standard of living (X_9)</u> : A standard of living index has been calculated to determine the economic condition of the households of the women respondents, as explained in Appendix-I. Based on this index, women have been classified as belonging to low, medium and high standard of living households. The low standard of living households is the reference category for the other two groups.

X_{9a} = 1 - Medium standard of living households

0 - Low standard of living households

X_{9b} = 1 - High standard of living households

0 - Low standard of living households.

(x)　　Exposure to mass media (X_{10}) : A woman is considered to be exposed to mass media if she listens to the radio at least once a week or watches television at least once a week or usually visits the cinema or theatre at least once a month. Thus the variable is coded as:

X_{10} = 1 - Exposed to mass media

0 - Not exposed to mass media.

(xi)　　Spousal communication (X_{11}) : Based on the woman's response to questions related to discussion about the number of children desired with their husbands in the past year, women have been classified as:

X_{11} = 1 - Discussed children with husband

0 - Did not discuss children with husband.

(xii)　　Husband's Approval of the use of contraception (X_{12}) : Whether the husbands approve or disapprove of contraceptive use, women have been classified as:

X_{12} = 1 - Husband approves contraceptive use

0 - Husband does not approve of contraceptive use or the woman does not known about her husband's opinion.

(xiii)　　Desire for future child (X_{13}) : Based on whether a woman wants a child not women have been classified as:

X_{13} = 1 - Desires to have another child

0 - Desire to have no more children or is unsure.

METHODOLOGY

The study uses the following statistical techniques to emperically analyze the relationship between the predictor and the dependent variables.

First, the Karl Pearson bivariate correlation analysis has been carried out among the predictor variables to understand the nature of relationship between them. The Karl Pearson ceofficeint of correlation 'r' between two variables x and y is calculated as:

$$r(X, Y) = \frac{\sum x_i y_i - \frac{(\sum x_i)(\sum y_i)}{n}}{\sqrt{\left\{\sum x_i^2 - \frac{(\sum x_i)^2}{n}\right\}\left\{\sum y_i^2 - \frac{(\sum y_i)^2}{n}\right\}}}$$

The value of 'r' ranges between -1 and +1. The value of '1' indicates perfect correlation between the two variables - so that nearer the absolute value is to '1', the stronger the relationship is. The sign of the coefficient 'r' indicates the direction of the relationship.

A multivariate logistic regression analysis has been used to examine the relationship between each of the predictor variables and the response variable. This is done since the response variable is dichotomous and not normally distributed. In a logistic regression analysis, the relationship between the response variable and the predictor variable is better understood, as the influence of other variables are controlled. The linear probability model has not been used in this situation due to the following limitations:

(i)   The estimated probability can assume impossible values.

(ii)   The linearity assumption is seriously violated, according to which, the expected value of the dependent variable $(\hat{Y})$ at any given value of predictor variable (X) falls on the regression line. But this is not possible for the parts of the line for which P<0 or P>1. In these regions, the observed points are either all above the line or all below the line.

(iii)   The homoscedasticity assumption is seriously violated. The variance of the dependent variable (Y) tends to be much higher in the middle range of the predictor variable (X) than at the two extremes, where the values of Y are either mostly zeroes or mostly ones. In such a situation the equal variance assumption is untenable.

(iv)   Since the linearity and homoscedasticity assumptions are seriously violated, the usual procedure for hypothesis testing are invalid.

(v)   The fit of the line (R^2) tends to be very poor, for the set of the two values of the dependent variable(Y) tend not to cluster closely about the regression line.

In a logit regression model, a sigmoid curve is used to fit the observed points. Since the tails of the sigmoid curve level off before reaching P=0 or P=1, the impossible values of P (P<0 and P>1) observed in a probit model are avoided. The basic form of logistic funciton is

$$P = \frac{1}{1+e^{-z}} \qquad (1)$$

where, P is the estimated probability (here the probability of having intention not to use contraception), z is the predictor variable and e is the base of the natural logarithm (e=2.7183). The predictor variable has the largest effect on P

when P=0.5 and P becomes smaller in absolute magnitude as P approaches 0 or 1.

The quantity $\dfrac{P}{1-P}$ is called the odds and the quantity $\log\left[\dfrac{P}{1-P}\right]$ is called the logit of P. Simplifying Eqn.(1) we get

$$\log z = \frac{P}{1-P} \tag{2}$$

$$\text{logit } P = z \tag{3}$$

The multivariate logistic function involving K predictor vairables (X_1, X_2, X_3, ..., X_K) is given by

$$P = \frac{1}{1+e^{-(b_0+b_1x_1+b_2x_2+.........b_kx_k)}} \tag{4}$$

and logit $P = b_0 + b_1 X_1 + b_2 X_2 + b_2 X_2 + ... + b_K X_K$ (5)

The coefficient b1 represents the additive effect of one unit change in predictor variable X_i on the log odds of having intention not to use contraception.

The quantity e^{bi} is called the odds-ratio which represent the multiplicative effect on one unit change in the predictor variable X_i on the odds of having intention not to use contraception. The "odds-ratio" is interpreted and not 'b' for it is more readily understandable.

Having described the framework for analysis and the data to be used, the next chapter deals with a detailed analysis of intention not to use contraception in future.

A COMPARATIVE ANALYSIS OF "INTENTION NOT TO USE CONTRACEPTION IN FUTURE" IN PUNJAB, UTTAR PRADESH, KERALA AND ANDHRA PRADESH

The conceptual framework developed in the preceding chapter is used to analyze the intention not to use contraception in the four study states. This chapter first presents the percentage distribution of currently married women by the response and predictor variables. It is followed by a correlation analysis among the predictor variables. Finally, logistic regression analysis has been presented to understand the influence of each predictor variable on intention not to use contraception in future. The discussion on relationship between intention not to use contraception including women wanting children is followed by discussion of intention not to use contraception excluding women wanting children.

Intention not to use contraception :

Table 4.1 presents percentage distribution of currently married women who are not using contraception and do not intend to do so in future. It is seen that currently married women currently not using is highest in Uttar Pradesh (80.2 percent), followed by Andhra Pradesh(47.0 percent) and then by Punjab (41.3 percent). Kerala has the lowest percentage of current non-users of contraception (36.7percent).

Table 4.1. Percentage of currently married women not using
and not intending to use contraception,4 Study States,1992-93

STATES	Not Using	Not intending to use	Don't want children & not intending to use
Punjab	41.3	15	9.1
Uttar Pradesh	80.2	49.6	23.1
Kerala	36.7	16.1	10.7
Andhra Pradesh	47	32.5	19.1

Percentage of currently married women who do not intend to use contraception in future is highest in Uttar Pradesh, a staggering 49.6 percent, followed by Andhra Pradesh, 32.5 percent. It is below 20 percent in the developed states of Kerala and Punjab. In Kerala it is 16 percent and Punjab is at 15 percent.

Among women who do not intend to have any more children in future, the percentage of women with the intention not to use contraception is relatively small in all the states (below 25 percent). But the pattern is similar to that of intention not to use contraception in future including women wanting children. Uttar Pradesh shows the highest non-intention of 23.1 percent and Punjab the lowest non-intention of 9.1 percent.

PERCENTAGE DISTRIBUTION OF INTENTION NOT TO USE CONTRACEPTION BY THE PREDICTOR VARIBALES

This section presents a simple bivariate analysis between the dependent variable, intention not to use contraception in future, and the

independent variables. It thus considers the percentage distribution of intentions not to use contraception for the predictor variable that influence it.

DEMOGRAPHIC VARIABLES

Age:

Table 4.2 shows the percentage distribution of women who do not intend to use contraception by their age. As seen in figure 4.1, except Uttar Pradesh the percentage of women having intention not to use contraception in future increases with age of women in all the states. In Uttar Pradesh the percentage declines between age 25-34 years and then rises again. This can be explained by the fact that women of this age group may have completed their family size and therefore intend to use contraception in future. The increase in intention not to use contraception from age group 13-24 years to age group 35 and above is sharpest in Punjab (62.2 percentage points), followed by Kerala (57.2 percentage points), and Andhra Pradesh (39.6 percentage points). It is lowest in Uttar Pradesh where the decline is only 15.2 percentage points. The intention not to use contraception in future increases sharply after 35 years of age perhaps due to societal restrictions on sexual activity (Mandelbaum ,1974).

Figure 4.1.Intention not to use contraception, including women wanting children by age of women,4 study states,1992-93
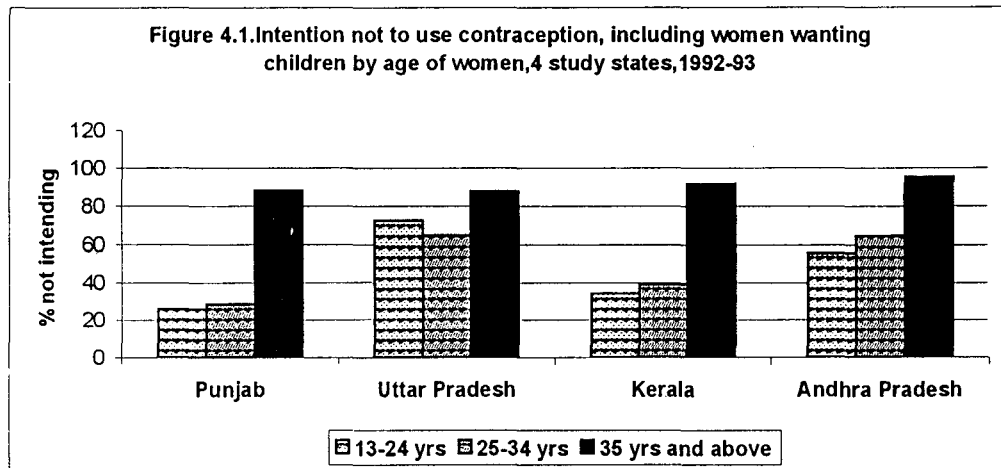
Among women who do not want any more children in future, intention not to use contraception also increases with increasing age for all the four states. However, it has a wide range between the younger and older age group for all the four states. That is because intention not to use is very low (below 20 percent in all states) among those who are below 25 years of age; for example it is only 2 percent in Punjab. The percentage is relatively low in the 25-34 years age group than in the older age group. Apart from such reasons like anxiety of side effects or lack of knowledge, probably actual or perceived sterility is more important a reason for such intentions.

The percentage of women with intention not to use contraception in future is almost the same in the older age group both including women wanting children and excluding them.

Table 4.2. Percentage distribution of currently married women not intending to use contraception according to wanting children' status by age of women : Punjab, Uttar Pradesh, Kerala and Andhra Pradesh,1992-93

INTENTION NOT TO USE	PUNJAB		UTTAR PRADESH		KERALA		NDHRA PRADES	
	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases
Incl. 'wanting children'								
13-24 yrs	25.86	98	72.43	1905	34.43	167	55.82	581
25-34 yrs	28.74	98	64.82	1612	39.53	168	64.44	299
35 yrs and above	88.01	235	87.61	1549	91.65	307	95.37	412
Excl. 'wanting children'								
13-24 yrs	2.09	6	28.71	292	16.53	63	11.2	58
25-34 yrs	13.52	38	44.27	695	25.29	87	42.31	121
35 yrs and above	87.2	218	85.05	1246	90.73	274	94.63	352

Source:Computed from raw data files of the 1992-93 NFHS(MCH and Family Planning), India

Table 4.3. Percentage distribution of currently married women not intending to use contraception according to wanting children' status by number of sons : Punjab, Uttar Pradesh, Kerala and Andhra Pradesh,1992-93

INTENTION NOT TO USE	PUNJAB		UTTAR PRADESH		KERALA		NDHRA PRADES	
	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases
Incl. 'wanting children'								
Less than or equal to two	44	370	73.72	4123	48.77	555	65.78	1184
More than two sons	42.07	61	72.99	5066	81.31	87	78.83	108
Excl. 'wanting children'								
Less than or equal to two	32.13	223	49.73	1454	36.9	341	41.17	431
More than two sons	31.71	39	69.07	779	80.58	83	77.52	100

Source:Computed from raw data files of the 1992-93 NFHS(MCH and Family Planning), India

Number of living sons:

Number of living sons is a crucial indicator of intention to control fertility especially in the Indian context, due to prevailing social phenomenon of son preference. Table 4.3 and figure 4.2, however show that the percentage of women with intention not to use contraception is only marginally lower for those with more than 2 sons compared with women having less than 2 sons, in the northern states of Punjab and Uttar Pradesh. In the southern states intention not to use contraception increases largely with number of living sons. This shows that son preference is not a very strong indicator of future intention regarding contraceptive use in the north.

Figure 4.2. Intention not to use contraception, including women wanting children by number of living sons,4 study states,1992-93
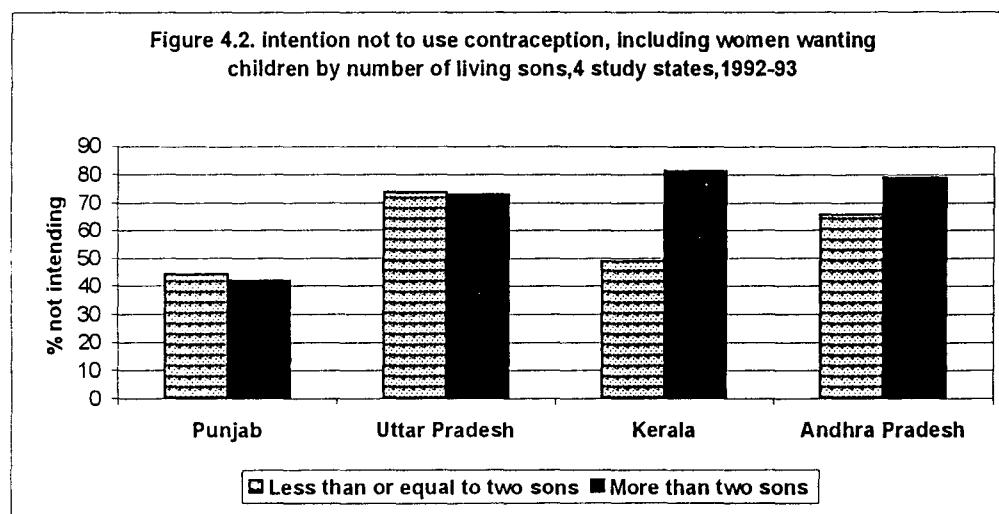
Intention not to use contraception among women who do not want any more children decreases with increase in number of living sons (more than 2 sons) in Punjab only. In the other states including Uttar Pradesh it increases drastically for women who have more than 2 sons - for instance, it is 43.7 percentage points more than for women having less than 2 living sons in Kerala.

Experience of child loss:

Experience of child loss is a potent demographic variable influencing intention to control fertility in the case of India, where infant mortality is high. The desire to replace the dead child lowers the intention to use contraception in future. Table 4.4 shows a very definite relationship between experience of child loss and intention not to use contraception in future.

As anticipated, women who have experienced child loss show higher intention not to use contraception in future compared to those who have had no experience of child loss (figure 4.3). The difference is more prominent in the southern states especially in Kerala where 86.1 percent of the women who have experienced child loss do not intend to use contraception as compared to 47.6 percent of those who have no experience of child loss (a difference of 38.5 percentage points).

Figure 4.3 Intention not to use contraception, including women wanting children by experience of childloss,4 study states,1992-93

Table 4.4. Percentage distribution of currently married women not intending to use contraception according to wanting children' status by experience of child loss: Punjab, Uttar Pradesh, Kerala and Andhra Pradesh,1992-93

INTENTION NOT TO USE	PUNJAB		UTTAR PRADESH		KERALA		ANDHRA PRADESH	
	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases
Incl. 'wanting children'								
Childloss	50.55	92	77.84	3022	86.05	111	79.71	334
No childloss	42.11	339	70.96	2044	47.58	531	63.11	958
Excl. 'wanting children'								
Childloss	43.75	70	68.28	1253	85	102	72.31	222
No childloss	29.18	192	44.2	980	35.5	322	35.56	309

Source:Computed from raw data files of the 1992-93 NFHS(MCH and Family Planning), India

A similar pattern is observed in the percentage women not intending to use contraception when we exclude women wanting children. In this case the difference in percentage is much wider. Though in Kerala, the figure of 85 percent of women who have experienced child loss is in excess of the percentage of women who have not experienced child loss by 49.5 percentage points.

SOCIAL VARIABLES

Place of Residence:

Urbanization does not show a very distinct relationship with intention not to use contraception in future. Surprisingly, as table 4.5 and figure 4.4 reflect, urban women have higher intention not to use contraception in the developed states of Punjab and Kerala. However, it must be mentioned, the difference between urban and rural women is marginal in both cases. However, as figure 4.5 shows, the difference between urban and rural women is marginal in both cases. In the backward states of both the regions, i.e. Uttar Pradesh and Andhra Pradesh urbanization reduces intention not to use contraception.

Table 4.5. Percentage distribution of currently married women not intending to use contraception according to wanting children' status by place of residence: Punjab, Uttar Pradesh, Kerala and Andhra Pradesh,1992-93

INTENTION NOT TO USE	PUNJAB		UTTAR PRADESH		KERALA		ANDHRA PRADESH	
	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases
Incl. 'wanting children'								
Urban	49.78	113	70.36	826	54.61	160	63.74	269
Rural	41.84	318	74.25	4240	50.63	482	67.53	1023
Excl. 'wanting children'								
Urban	41.24	80	54.39	415	44.12	105	42.7	114
Rural	29.17	182	55.28	1818	40.43	319	45.87	417

Source:Computed from raw data files of the 1992-93 NFHS(MCH and Family Planning), India

Table 4.6. Percentage distribution of currently married women not intending to use contraception according to wanting children' status by educational levels : Punjab, Uttar Pradesh, Kerala and Andhra Pradesh,1992-93

INTENTION NOT TO USE	PUNJAB		UTTAR PRADESH		KERALA		ANDHRA PRADESH	
	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases
Incl. 'wanting children'								
Illiterate	49.91	268	77.29	4220	76.88	133	69.48	970
Primary	37.63	73	62.73	372	58.63	265	67.86	152
Middle School	32.61	30	56.18	200	42.69	146	57.60	72
High School	36.59	60	57.56	274	35.26	98	51.04	98
Excl. 'wanting children'								
Illiterate	39	172	61.14	1915	72.79	72.79	50.92	442
Primary	24.84	40	39.45	144	49	49.73	41.46	51
Middle School	22.5	18	23.53	18	48	28.47	25.35	18
High School	23.53	32	30.82	90	90	23.08	17.54	20

Source:Computed from raw data files of the 1992-93 NFHS(MCH and Family Planning), India

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Figure 4.4. Intention not to use contraception, including women wanting children by place of residence,4 study states,1992-93

```
  80
  70
  60
  50
  40
  30
  20
  10
   0
       Punjab    Uttar Pradesh    Kerala    Andhra Pradesh
```

%not intending

☐ Urban ■ Rural

The intention not to use contraception in future among women who do not want any more children follows a similar pattern as mentioned above. In Punjab, however, the difference in the intention between the urban and rural women is not marginal (12.1 percentage points).

Education:

Intention not to use contraception in future by educational levels of women is shown in table 4.6. Figure 4.5 shows the intention not to use contraception decreases with increasing levels of education upto middle school complete for the four study states. The decline is largest in Kerala (34.2 percentage points) and lowest in Andhra Pradesh (11.9 percentage points). In these two southern states the intention not to use contraception decreases with further education i.e high school. On the other hand, the intention not to use contraception increases among women who have completed high school

in the states of Punjab and Uttar Pradesh, which may be due to general low level of education in the two states.

Figure 4.5.Intention not to use contraception, including women wanting children by educational level,4 study states,1992-93l
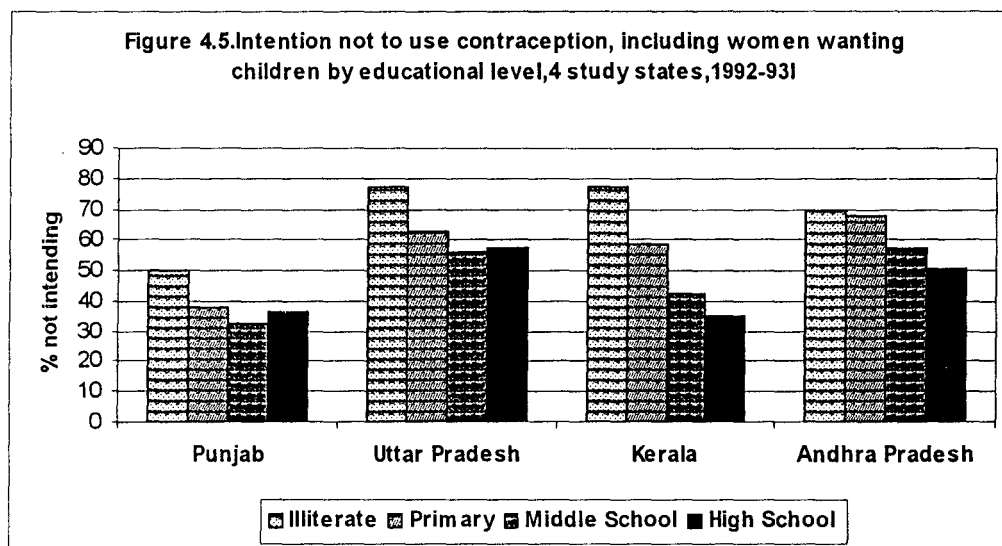
Among women who do not want any more children, educational levels show similar bearing on intention not to use contraception in future.

Religion:

Table 4.7 shows intention not to use contraception by religion. Including women wanting children, intention not to use contraception is highest among Muslims in most states except Punjab. In the southern states where Christian population is high, there is not much difference between Hindus and Christians. In Punjab though such intention is highest among Sikhs (44.1 percent), there is no significant differences among the religions.

Table 4.7. Percentage distribution of currently married women not intending to use contraception according to wanting children' status by religion of women: Punjab, Uttar Pradesh, Kerala and Andhra Pradesh,1992-93

INTENTION NOT TO USE	PUNJAB		UTTAR PRADESH		KERALA		ANDHRA PRADESH	
	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases
Incl. 'wanting children'								
Hindu	42.98	153	72.69	4137	43.68	228	66.78	1134
Muslim	41.18	7	79.71	876	62.64	336	66.86	117
Sikh	44.14	260						
Christian	40.41	9			42.46	76	63.79	37
Others	66.67	2	56.38	53	40.00	2	66.67	4
Excl. 'wanting children'								
Hindu	32.11	96	52.07	1689	33.33	147	44.66	455
Muslim	28.57	4	69.66	512	52.57	225	50.43	59
Sikh	32.17	456						
Christian	27.78	5			33.12	51	38.24	13
Others	50.00	1	43.84	32	25.00	1	66.67	4

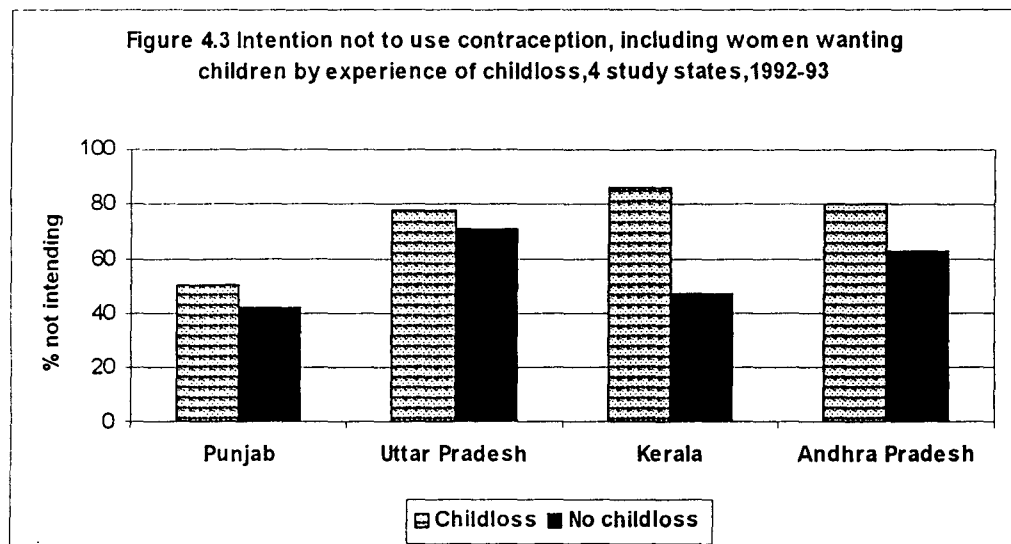Source:Computed from raw data files of the 1992-93 NFHS(MCH and Family Planning), India

Table 4.8. Percentage distribution of currently married women not intending to use contraception according to wanting children' status by caste status of women: Punjab, Uttar Pradesh, Kerala and Andhra Pradesh,1992-93

INTENTION TO USE	PUNJAB*		UTTAR PRADESH		KERALA		ANDHRA PRADESH	
	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases
Incl. 'wanting children'								
SC & ST	42.41	109	76.14	1050	48.08	25	67.83	312
Non SC & ST	44.11	322	72.94	4016	51.72	617	66.36	980
Excl. 'wanting children'								
SC & ST	29.52	62	57.22	440	32.5	13	45.98	126
Non SC & ST	32.89	200	54.61	1793	41.64	411	44.9	405

* Punjab has no ST population.

Source:Computed from raw data files of the 1992-93 NFHS(MCH and Family Planning), India

Excluding women wanting children, intention not to use contraception presents a similar trend as above. Muslims have highest intention not to use contraception in Uttar Pradesh, Kerala and Andhra Pradesh. In Punjab and Andhra Pradesh Christians have lower intention not to use than Hindus.

Caste/ tribe of women:

Table 4.8 shows intention not to use contraception of women by their caste or tribe status. The relationship between caste status of women and their intention regarding contraceptive use in future is not uniform through all the states (figure 4.6). In the backward states of both the region i.e. Uttar Pradesh and Andhra Pradesh women of the scheduled castes and scheduled tribes have slightly higher intention not to use contraception in future. Contrary to expectations, SC/ST women of Punjab have lower intention of not using contraception. Kerala has a higher intention not to use contraception among non-SC/ST women.

Figure 4.6. Intention not to use contraception, including women wanting children by caste of women,4 study states,1992-93
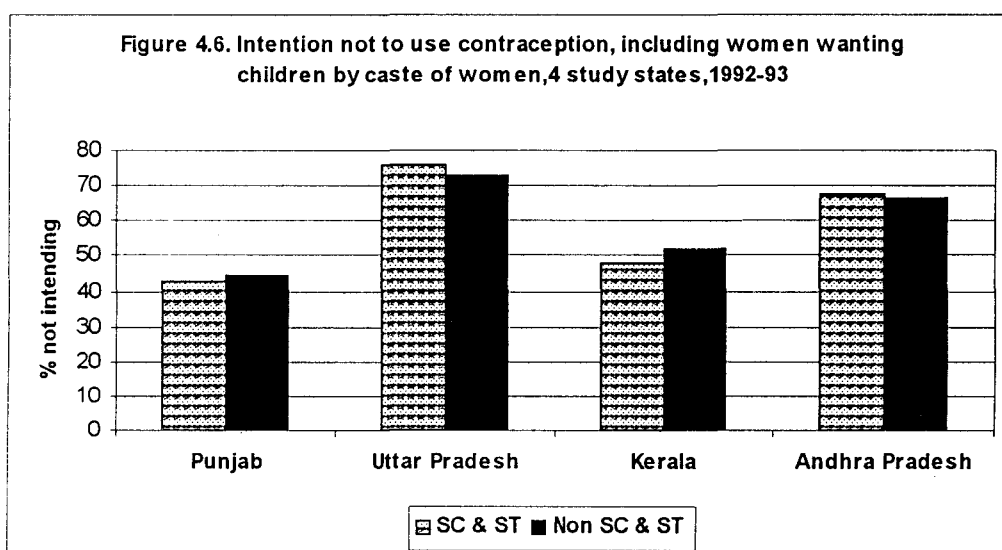
Among women who do not intend to use contraception in future and do not want any more children, it is found that the percentage is high for non SC/ST women of Punjab (32.9 percent) and Kerala (41.6 percent), though marginally, while it is as expected in the other states.

ECONOMIC VARIABLES :

Work Status:

Women who are employed and not using contraception have generally lesser intention of not using contraception in future for they have a higher opportunity cost of time and therefore want to have fewer children. As table 4.9 show this situation holds true only for Uttar Pradesh where working women have lower intention not to use contraception (71.4 percent) than those who are not working (74.0 percent). However, as figure 4.7 shows, in the states of Punjab, Kerala and Andhra Pradesh, women who are not working have much lower intention of not using contraception in future. In Punjab percentage of women not working with intention not to use contraception is 42.3 percent as against working women of whom 63.1 percent have such intention.

Table 4.9. Percentage distribution of currently married women not intending to use contraception according to wanting children' status by work status of women: Punjab, Uttar Pradesh, Kerala and Andhra Pradesh,1992-93
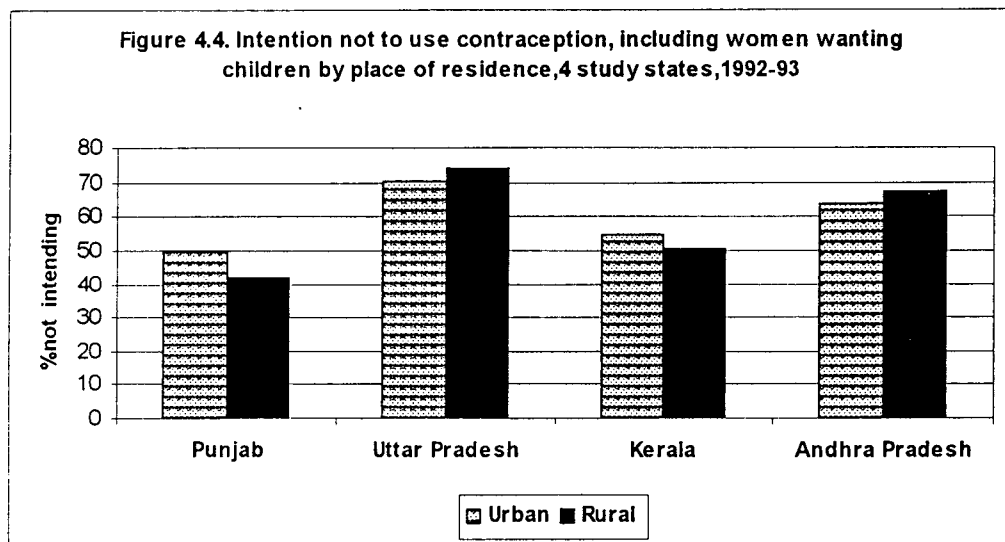
	PUNJAB		UTTAR PRADESH		KERALA		ANDHRA PRADESH	
INTENTIO TO USE	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases
Incl. 'wanting children'								
Working	63.08	41	71.38	833	60.00	96	68.40	714
Not workin	42.30	390	74.02	4231	50.32	546	64.72	576
Excl. 'wanting children'								
Working	55.56	30	57.12	445	50.76	66	49.39	322
Not workin	30.37	232	54.6	1786	39.91	358	39.73	207

Source:Computed from raw data files of the 1992-93 NFHS(MCH and Family Planning), India

Table 4.10. Percentage distribution of currently married women not intending to use contraception according to wanting children' status by standard of living : Punjab, Uttar Pradesh, Kerala and Andhra Pradesh,1992-93

	PUNJAB		UTTAR PRADESH		KERALA		ANDHRA PRADESH	
INTENTIO TO USE	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases
Incl. 'wanting children'								
Low SLI	40.11	73	76.21	3081	52.85	269	69.47	869
Medium S	43.54	199	71.13	1572	48.73	268	62.69	326
High SLI	45.69	159	65.35	413	56.46	105	58.43	97
Excl. 'wanting children'								
Low SLI	25.85	38	59.31	1402	42.31	176	48.66	3624
Medium S	31.02	116	50.43	649	38.7	178	39.94	129
High SLI	36.37	108	45.39	182	46.36	70	36.7	40

Source:Computed from raw data files of the 1992-93 NFHS(MCH and Family Planning), India

Figure 4.7. Intention not to use contraception, including women wanting children by work status of women,4 study states,1992-93

In all the four states, women who are not employed and do not want more children have lower intention not to use contraception in future than those who are employed.

Standard of living :

Standard of living and intention not to use contraception do not appear to be related. As not show any definite relationship. As table 4.10 shows, in Punjab, the developed state of north with increasing standard of living intention not to use contraception increases marginally. It is reflected in figure 4.8 also. In Kerala it declines in the medium level of standard of living and then rises again. In Uttar Pradesh and Andhra Pradesh, with increasing levels of living, the percentage declines by about 5 percentage points at each level.

Figure 4.8. Intention not to use contraception, including women wanting children by standard of living,4 study states,1992-93
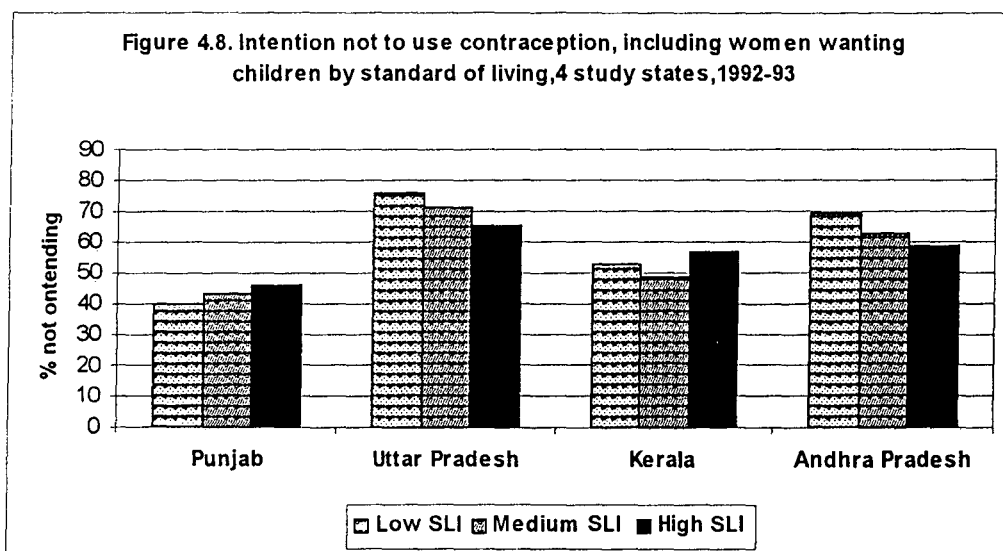
A similar pattern is discerned when we consider currently married women who do not want any more children, though the range of difference is much wider for most states. In Punjab, there is a difference of 10.5 percentage points between the women of low standard of living and high standard of living. In Uttar Pradesh the difference between low standard of living women and high standard of living women is higher (8.9 percentage points) than the difference between medium standard of living women and high standard of living women (5.0 percentage points).

Exposure to Mass Madia:

Exposure to mass media is a very important variable in demographic analysis of fertility behaviour, for electronic mass media exposes women to

small family norms and thus motivates her to use contraception (Westoff and Bankole, 1997). A clear-cut relationship exists between exposure to mass media and intention not to use contraception as shown in table 4.11. Figure 4.9 shows those who are exposed to mass media have less intention not to use contraception in future. For instance, in Uttar Pradesh 77 percent of women who are not exposed, intend not to use contraception compared to 67.2 percent of those who are exposed. However, the difference is highest in Kerala - 60.9 percent of women who are not exposed to mass media do not intend to use contraception as against 49 percent of those who are exposed.

Figure 4.9. Intention not to use contraception, including women wanting children by exposure to mass media,4 study states,1992-93
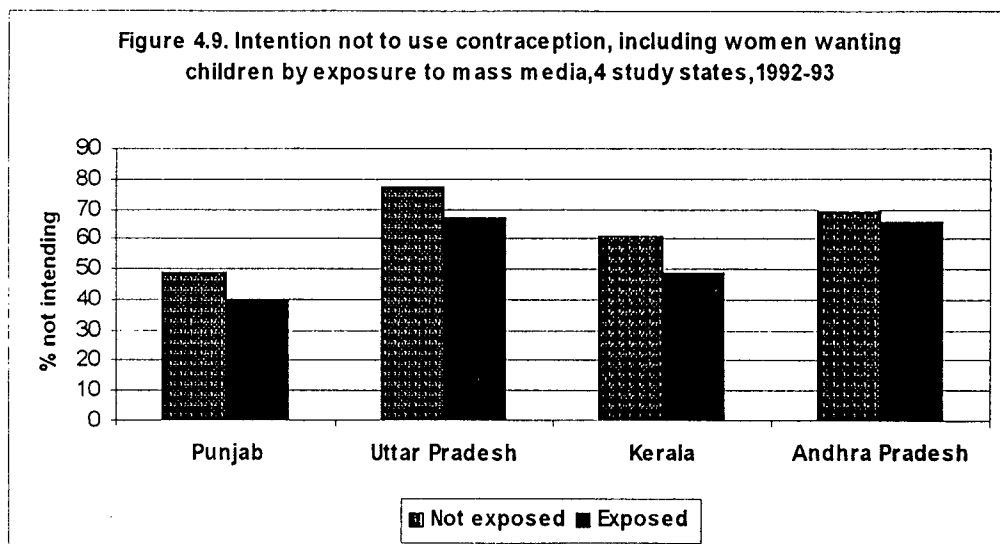
Among women who do not want any more children, the relationship is similar to that described above.

Table 4.11. Percentage distribution of currently married women not intending to use contraception according to wanting children' status by exposure to mass media:Punjab, Uttar Pradesh, Kerala and Andhra Pradesh,1992-93

INTENTION NOT TO USE	PUNJAB		UTTAR PRADESH		KERALA		ANDHRA PRADESH	
	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases
Incl. 'wanting children'								
Not exposed	48.75	195	77.01	3446	60.89	165	69.04	359
Exposed	40.20	236	67.22	1620	43.97	477	65.85	933
Excl. 'wanting children'								
Not exposed	36.53	118	61.7	1658	53.09	120	54.52	193
Exposed	29.09	144	42.12	575	37.95	304	41.12	338

Source:Computed from raw data files of the 1992-93 NFHS(MCH and Family Planning), India

Table 4.12. Percentage distribution of currently married women not intending to use contraception according to wanting children' status by spousal communication: Punjab, Uttar Pradesh, Kerala and Andhra Pradesh,1992-93

INTENTION NOT TO USE	PUNJAB		UTTAR PRADESH		KERALA		ANDHRA PRADESH	
	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases
Incl. 'wanting children'								
Disscussed children	40.05	338	65.26	2684	40.00	338	61.02	703
Did not disscuss children	65.04	93	85.93	2375	76.34	300	74.87	581
Excl. 'wanting children'								
Disscussed children	27.82	195	42.45	1054	28.89	206	31.76	209
Did not disscuss children	65.04	67	75.18	1178	69.71	214	61.84	316

Source:Computed from raw data files of the 1992-93 NFHS(MCH and Family Planning), India

Spousal communication:

Spousal communication has a strong bearing on intention to use contraception in future. Table 4.12 shows that intention not to use contraception is much lower among those who have discussed contraceptive use. It is most pronounced in Kerala (fig.4.10) where 28.9 percent of women who have spousal communication as against, 69.7 percent of women who do not communicate with their husbands, do not intend to use in future.

The same relationship holds good when women who do not want children are considered. However, the gap between the two categories of predictor variables is much less.

Figure 4.10. Intention not to use contraception, including women wanting children by spousal communication,4 study states,1992-93
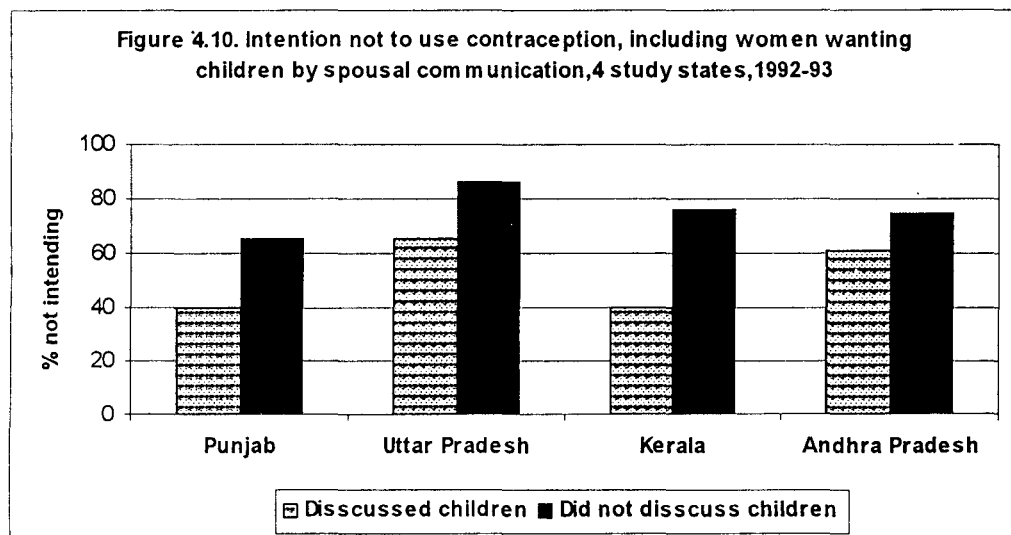
Husband's approval:

Women may not use contraception because of opposition from their husbands and such approval affects contraceptive use (Bankole and Singh,

Table 4.13. Percentage distribution of currently married women not intending to use contraception according to wanting children' status by husband's approval : Punjab, Uttar Pradesh, Kerala and Andhra Pradesh,1992-93
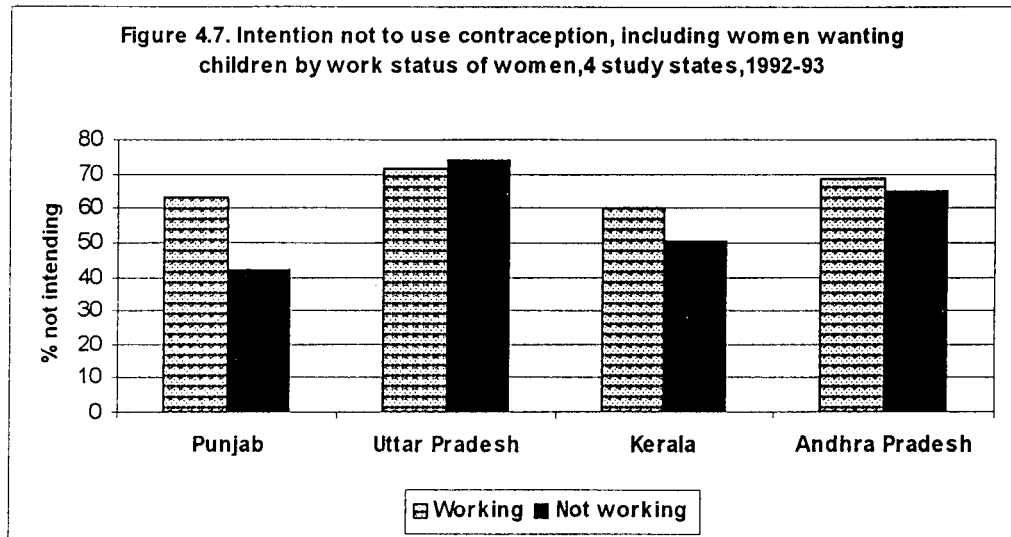
INTENTION NOT TO USE	PUNJAB		UTTAR PRADESH		KERALA		ANDHRA PRADESH	
	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases
Incl. 'wanting children'								
Approves use	36.91	299	53.36	1620	35.84	257	62.99	953
Disapproves use	74.58	132	89.53	3439	73.123	381	79.95	331
Excl. 'wanting children'								
Approves use	25.62	176	29.73	596	25.2	155	38.39	349
Disapproves use	65.65	86	80.27	1636	65.43	265	67.95	176

Source:Computed from raw data files of the 1992-93 NFHS(MCH and Family Planning), India

Table 4.14. Percentage distribution of currently married women not intending to use contraception according to wanting children' status desire for future child: Punjab, Uttar Pradesh, Kerala and Andhra Pradesh,1992-93

INTENTION NOT TO USE	PUNJAB		UTTAR PRADESH		KERALA		ANDHRA PRADESH	
	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases	% who do not intend to use	No. of cases
Incl. 'wanting children'								
Desire child	40.51	175	78.98	2600	43.05	316	63.16	739
Do not desire child	46.13	256	68.61	2461	63.41	312	71.83	543

Source:Computed from raw data files of the 1992-93 NFHS(MCH and Family Planning), India

1998). Table 4.13 shows that intention not to use contraception in future is low when husbands approve of contraceptive use. In Punjab 36.9 percent of women whose husbands approve do not intend to use compared to 74.6 percent of those whose husbands do not approve (figure 4.11).

Figure 4.11.Intention not use contraception, including women wanting children by husband's approval,4 study states,1992-93
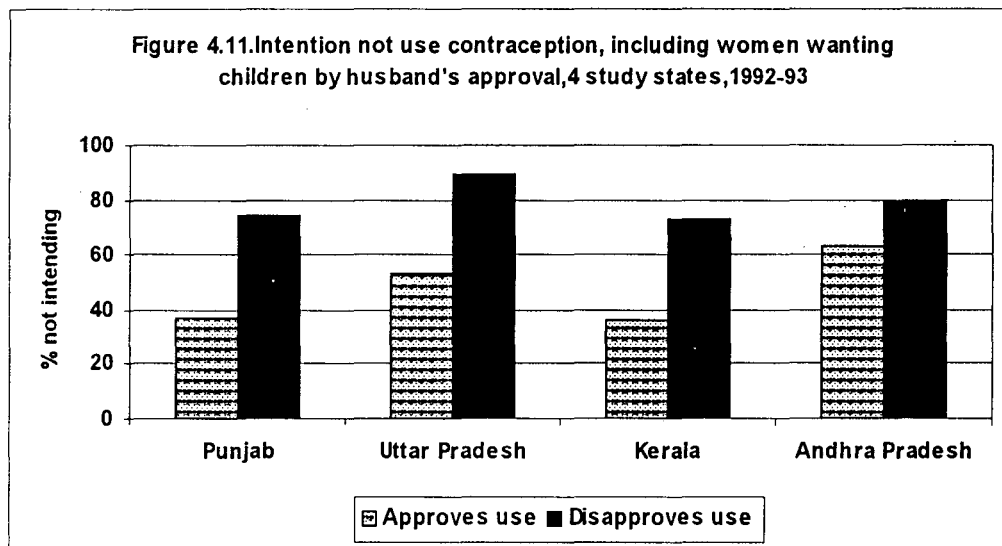
When we look at those women who do not intend to have any more children, the difference is highest in Uttar Pradesh (50.7 percentage points) with 29.6 percent not intending to use in future if the husband approves compared to 80.3 percent if he does not.

Desire for future child:

Table 4.14 shows intention not to use contraception of women by their desire for future child. Women who desire a child, clearly not intend to use

contraception. However, this is does not exhibit a very strong influence (figure 4.12), for even when there is a desire for a child in future, such women may intend to use contraception after the birth of the child and thus fall in the group of those who intend to use. The difference between in percentage of those who desires a child and those who do not is most in Kerala (20.4 percentage points) and least in Punjab (6 percentage points).

Figure 4.12. Intention not to use contraception, including women wanting children by women's desire for future child,4 study states,1992-93
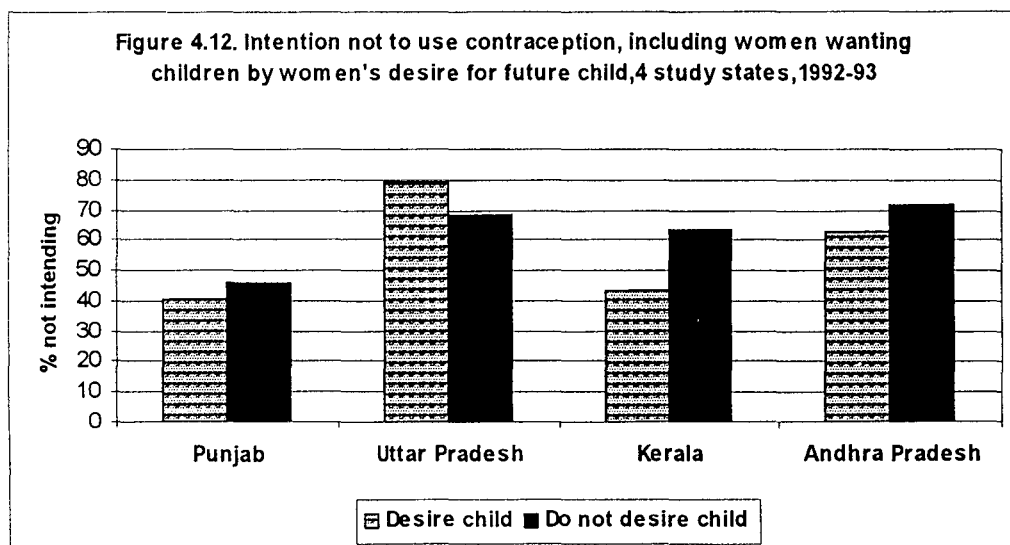
To sum up, the relationship between intention not to use contraception in future and most of the selected variables is in the expected direction. The pattern of relationship is similar both when we include and exclude women wanting children. Exceptions regarding a few of the variables are found in the developed states. Urban women, non SC/ST women and women belonging to better standard of living households have higher intention not to use

contraception, in these states. Including women wanting children, in Punjab and Kerala working women have higher intention not to use contraception than those who are not working. Working women have higher intention not to use contraception in all the states when we exclude women wanting children. Next, section presents the results of the correlation analysis between the predictor variables.

CORRELATION AMONG THE PREDICTOR VARIABLES :

The present section examines the results of the correlation analysis among the predictor variables. Such an analysis helps us to identify the presence of common variance, if any, among the variables. First the northern states viz., Punjab and Uttar Pradesh, followed by the southern states viz., Kerala and Andhra Pradesh are dealt with. It needs to be noted that for the sake of the analysis, recoding has been done for two variables. Education has been recoded as 0 = Illiterate and 1 = Literate; and religion has been recoded as 0 = Hindu and 1 = Non-Hindu. The coding of the other variables remains the same. We discuss only those statistically significant correlation coefficients, which are rather high.

Table 4.15 shows the correlation matrix among the predictor variables in Punjab. Between age and other variables a strong and negative correlation (r = -0.52) exists only with desire for future child, which is as envisaged, since older women generally have completed their desired family size. Literacy has a positive correlation with standard of living (r = 0.50), implying that more literates have a better living standard and that economically well off households educate their females. Literacy, as expected, also shows a high

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Table 4.15.Correlation coefficients among predictor variables : Punjab,1992-93

	Age	No. of sons	Exp.of childloss	Residence	Education	Religion	Caste	Work status	Standard of living	Exposure to mass media	Spousal ommunicatio	Husband's Approval	Desire for child
Age	1												
No. of sons	-0.0250	1											
Exp.of Chidloss	0.1620**	-0.0174	1										
Residence	0.0537**	-0.0513**	-0.0643**	1									
Education	-0.0606**	-0.0345	-0.1436**	0.2499**	1								
Religion	-0.0077	-0.0482**	-0.0203	-0.2724**	-0.0784**	1							
Caste	0.0316	-0.0677**	-0.0750**	-0.0102	0.2000**	0.2703**	1						
Work status	0.0773**	-0.0081	0.0223	0.0098	-0.0364*	-0.0240	-0.0250	1					
Standard of living	0.0539**	-0.0615**	-0.1531**	0.2539**	0.5072**	0.0241	0.2819**	-0.0426*	1				
Exposure to mass media	-0.0270	-0.0001	-0.1153**	0.2480**	0.4245**	-0.1204**	0.1098**	-0.0351	0.5033*	1			
Spousal communication	0.0096	-0.0412	-0.0202	0.0957**	0.1907**	-0.0271	0.0509*	-0.0151	0.1544**	0.2001**	1		
Husband's approval	0.051*	-0.0311	-0.0483**	0.0729**	0.1963**	-0.0245	0.0733*	0.0061	0.1948**	0.2048**	0.3509**	1	
Desire for child	-0.5237**	0.0284	-0.0798**	-0.0911**	-0.0310	0.0004	-0.0766**	-0.0562*	-0.1269**	-0.0448	-0.0305	-0.1153**	1

** Correlation is significant at 1 percent level confidence

* Correlation is significant at 5 percent level confidence

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Table 4.16. Correlation coefficients among predictor variables : Uttar Pradesh,1992-93

Age	Age	No. of sons	Exp.of childloss	Residence	Education	Religion	Caste	Work status	Standard of living	Exposure to mass media	Spousal ommunicatio	Husband's Approval	Desire for child
No. of sons	0.3340**	1											
Exp.of Chidloss	0.3433**	0.1954**	1										
Residence	0.0924**	-0.0142**	-0.1351**	1									
Education	-0.0385**	-0.1391**	-0.2123**	0.3875**	1								
Religion	0.0071**	0.0581**	-0.0525**	0.2351**	-0.0575**	1							
Caste	0.0415**	-0.0148**	-0.0820**	0.1143**	0.1691**	0.1881**	1						
Work status	0.1204**	0.0654**	0.1169**	-0.0446**	-0.0801**	-0.0623**	-0.1505**	1					
Standard of living	0.0053**	-0.0735**	-0.1940**	0.4409**	0.5544**	0.0218**	0.2160**	-0.1237**	1				
Exposure to mass media	-0.0446**	-0.0750**	-0.1677**	0.3458**	0.4371**	0.0055**	0.1215**	-0.0756**	0.5417**	1			
Spousal communication	-0.0031**	-0.0451**	-0.1207**	0.1731**	0.2970**	-0.0508**	0.0526**	-0.0246**	0.2630**	0.2481**	1		
Husband's approval	0.0039**	-0.0511**	-0.1018**	0.1214**	0.2430**	-0.0167**	0.0666**	-0.0421**	0.2148**	0.2046**	0.4334**	1	
Desire for child	-0.4815**	-0.3485**	-0.2122**	-0.0770**	0.0320**	-0.0776**	-0.0430**	-0.0532**	-0.0219**	0.0453**	-0.0448**	0.0154**	1

** Correlation is significant at 1 percent level confidence

* Correlation is significant at 5 percent level confidence

correlation with exposure to mass media (0.43), meaning more literates are exposed to the mass media. Standard of living is positively correlated with exposure to mass media positively (r = 0.50). Women belonging to households with better standard of living can afford to have radio or television sets or both and visit the cinema.

Table 4.16 shows the correlation matrix among the predictor variables for Uttar Pradesh. The significant and strong correlations of Punjab are also discerned in Uttar Pradesh. Like Punjab, age of women is negatively correlated with desire for future child (r = -0.48). Literacy, as in Punjab, is highly and positively associated with standard of living (r = 0.55) as well as exposure to mass media (r = 0.44), implying better standard of living is enjoyed by literate women and literate women are exposed to the mass media. Standard of living of the women, is again positively associated with exposure to mass media (r = 0.54). In Uttar Pradesh husband's approval and spousal communication are positively correlated (r = 0.43), suggesting women who more women who communicate with their husbands, have husbands who approve of contraceptive use.

In the southern states the results are somewhat different to that observed in the northern states. In Kerala, as table 4.17 shows a strong correlation exists only between age and desire for future child (r = -0.47).

In Andhra Pradesh again, as shown in table 4.18, age of women is negatively correlated with desire for future child (r = -0.53). Literacy also shows a positive association with standard of living of the women (r = 0.55). In Andhra Pradesh, unlike the other states, a strong correlation exists between place of residence and standard of living and it is positive (r = 0.48),

Table 4.17 Correlation coefficients among predictor variables : Kerala, 1992-93

	Age	No. of sons	Exp.of childloss	Residence	Education	Religion	Caste	Work status	Standard of living	Exposure to mass media	Spousal ommunicati	Husband's Approval	Desire for child
Age	1												
No. of sons	0.1424**	1											
Exp.of Chidloss	0.1400**	0.1236**	1										
Residence	0.0484**	0.0015	-0.0196	1									
Education	-0.1234**	-0.1542**	-0.2068**	0.0512**	1								
Religion	-0.1315**	0.1088**	0.0300*	-0.0622**	-0.0224	1							
Caste	-0.0310*	0.0009	-0.0284	0.0280	0.1580**	0.2032**	1						
Work status	0.1894**	-0.0199	0.0567**	0.0001	-0.1690**	-0.2033**	-0.1822	1					
Standard of living	0.0303	-0.0544**	-0.1033**	0.1854**	0.2738**	0.0474**	0.1466**	-0.1632**	1				
Exposure to mass media	-0.0097	-0.0705**	-0.1006**	0.1196**	0.2559**	-0.1021**	0.0413**	-0.0325**	0.3347**	1			
Spousal communication	-0.0071	-0.2151**	-0.1603**	0.0279	0.2299**	-0.2071**	-0.0145	0.0597**	0.1221**	0.1775**	1		
Husband's approval	-0.0160	-0.1331**	-0.1198**	0.0455*	0.1525**	-0.2002**	0.0121	0.1023**	0.1248**	0.1686**	0.3477**	1	
Desire for child	-0.4702**	-0.2054**	-0.1856**	-0.1119**	0.1426**	0.0693**	-0.0071	-0.1252**	-0.0942**	0.0048	0.0466*	-0.0149	1

** Correlation is significant at 1 percent level confidence

* Correlation is significant at 5 percent level confidence

Table 4.18. Correlation coefficients among predictor variables : Andhra Pradesh,1992-93

	Age	No. of sons	Exp.of childloss	Residence	Education	Religion	Caste	Work status	Standard of living	Exposure to mass media	Spousal ommunicatio	Husband's Approval	Desire for child
No. of sons	0.2077**	1											
Exp.of Chidloss	0.2326**	0.1037**	1										
Residence	0.1011**	0.0076	-0.0738**	1									
Education	-0.0143	-0.0778**	-0.1537**	0.3780**	1								
Religion	0.0122	0.0730**	-0.0341*	0.1968**	0.1012**	1							
Caste	0.0279	-0.0178	-0.0743**	0.1505**	0.1830**	0.0442**	1						
Work status	0.0285	0.0268	0.0738**	-0.3567**	-0.3860**	-0.1219	-0.2026**	1					
Standard of living	0.0843**	-0.0173	-0.1246**	0.4816**	0.5466**	0.1007**	0.2306**	-0.3777**	1				
Exposure to mass media	-0.0394*	-0.0283	-0.1105**	0.2677**	0.3242**	0.0307*	0.1138**	-0.2358**	0.3142**	1			
Spousal communication	-0.1043**	-0.1106**	-0.1148**	0.1286**	0.2151**	0.0394	0.0520*	-0.1115**	0.1419**	0.1645**	1		
Husband's approval	-0.0353	-0.0446*	-0.0930**	0.1050**	0.1770**	0.0235	0.0768**	-0.0635**	0.1311**	0.1916**	0.2577**	1	
Desire for child	-0.5293**	-0.2809**	-0.2691**	-0.0633**	0.0888**	-0.0517*	-0.0114	-0.0117	-0.0128	0.0875**	0.1319**	0.0764**	1

** Correlation is significant at 1 percent level confidence

* Correlation is significant at 5 percent level confidence

suggesting that urban women enjoy a better standard of living than rural women. Quite surprisingly, work status has negative correlation with place of residence (r = -0.36), literacy (r = -0.39) and standard of living (r = -0.38).

The above results of the correlation analysis show, age is negatively correlated with desire for future child in all the four states. Literacy and standard of living and exposure to mass media are all positively correlated among themselves in Punjab and Uttar Pradesh. In Andhra Pradesh literacy and standard of living are positively correlated. This relationship, however is not found in Kerala – perhaps, because of high levels of literacy in the state.

Having found that the predictor variables by and large are not highly correlated , in the next section we present the results of multivariate logistic analysis.

MULTIVARIATE ANALYSIS :

In this section, we discuss the results of the logistic regression analysis. Table 4.19 and 4.20 show the results of the logistic regression analysis for intention not to use contraception, including women wanting children and excluding women wanting children, respectively. As an appendage to this analysis, an attempt has been made to understand the factors that have bearings on attitude of women who have never used contraception in the past and do not intend to do so in the future as against current users (table 4.21). The exponential parameter in the tables, exp. (b) is the odds ratio. It represents proportional increase (if greater than 1.0) or decrease (if less than 1.0) on the likelihood of intention not to use contraception in future (tables 4.19

and 4.20) and attitude of women who have never used contraception and not intending to do so in future (table 4.21).

Intention not to use contraception including women wanting children :

Table 4.19, shows that age of the respondents and husband's approval are significantly associated with intention not to use contraception, in all the four study states. The odds-ratio observed for age of woman, except for age group 25-34 years in Uttar Pradesh is significant for all the study states. Women aged 25-34 years in Punjab were 1.93 times as likely as those were below the age 24 years to have no intention to use contraception in future. In Keralaand Andhra Pradesh, women aged 25-34 years were 1.49 times and 1.95 times more likely than younger women with intention not to use contraception were. However, the effect of age was more pronounced in the older age group of 35 and above. For instance, in Punjab women above the age of 35 years were 57.71 times more likely to have intention not to use contraception compared to women of age group 13-24 years. In Utter Prudish, the corresponding odd ratio is 5.60. In southern states, the corresponding odds-ratios are high again. In Keralawomen aged 35 and above have 31.34 times more chances and in Andhra Pradesh they are 29.55 times more likely than women aged 13-24 years not to use contraception in future. This confirms our hypothesis that older women are likely to have intention not to use contraception due to societal restrictions on sexual activity (Mandelbaum, 1974).

Husband's approval of using contraception is seen to exert an important influence on intention not to use contraception in future. Women whose husband's approve of contraception are less likely not to intend to use

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Table 4.19 Results of the logistic regression analysis for intention not to use contraception including women wanting children in Punjab, Uttar Pradesh, Kerala,Andhra Pradesh,1992-93

Variable	Punjab			Uttar Pradesh			Kerala			Andhra Pradesh		
	B	Sig	Exp(B)	B	Sig	Exp(B)	B	Sig	Exp(B)	B	Sig	Exp(B)
Age		0	**		0	**		0			0	**
25-34	0.6594	0.0013	**1.9337****	0.0571	0.4698	1.0588	0.3967	0.0197	**1.4869***	0.6669	0	**1.9483****
35 & above	4.0555	0	**57.714****	1.7227	0	**5.5997****	3.4449	0	**31.3412****	3.3862	0	**29.5529****
No. of living sons	-0.065	0.7808	0.9371	-0.4317	0	**0.6494****	-0.4364	0.239	0.6464	-0.2746	0.3085	0.7599
Exp. Of child loss	-0.2027	0.3892	0.8166	0.0129	0.8629	1.013	0.5493	0.0942	1.732	0.2401	0.1225	1.2714
Residence	0.4317	0.0464	**1.5399****	0.0819	0.3935	1.0853	0.1954	0.277	1.2157	-0.0355	0.821	0.9651
Education		0.0505			0	**		0.3127			0.4556	
Primary	-0.5039	0.0344	**0.6042***	-0.3648	0.0007	**0.6943****	-0.1285	0.652	0.8794	0.1087	0.5405	1.1148
Middle	-0.6704	0.0395	**0.5115***	-0.4791	0.0003	**0.6193****	-0.1641	0.5924	0.8486	-0.0423	0.8455	0.9586
High School +	-0.6164	0.0318	**0.5399****	-0.4761	0.0006	**0.6212****	-0.5302	0.1242	0.5885	-0.272	0.2031	0.7618
Religion		0.7401	**		0.0002	**		0.0041	**		0.6978	
Muslim	0.0042	0.9947	**1.0042****	0.3332	0.0007	**1.3954****	0.6414	0.0007	**1.899****	0.1524	0.4391	1.1647
Sikhs	0.0269	0.8912	**1.0273****									
Christians	-0.3771	0.52	**0.6858****				-0.0141	0.9519	0.986	-0.2736	0.3788	0.7607
Others	1.6876	0.2217	**5.4067****	-0.5323	0.0285	**0.5873***	0.4236	0.67	1.5274	-0.0409	0.9668	0.9599
Caste	-0.0325	0.8769	**0.968****	0.055	0.5179	1.0566	0.2356	0.5227	1.2657	-0.0522	0.6929	0.9491
Work Status	0.555	0.1104	1.742	-0.2976	0.0005	**0.7426****	0.4894	0.0439	**1.6313***	-0.0949	0.4424	0.9095
Standard of living		0.0443			0.0491			0.1296			0.0258	*
Medium SLI	0.2362	0.341	1.2664	0.088	0.2539	1.092	-0.0738	0.6821	0.9289	-0.3317	0.0157	**0.7177****
High SLI	0.7344	0.0211	**2.0843***	0.3477	0.0142	**1.4158***	0.4052	0.1353	1.4996	-0.5068	0.0376	**0.6024***
Exposure to mass media	-0.2827	0.1722	0.7537	-0.1289	0.0945	0.8791	0.0621	0.7607	1.0641	0.349	0.0094	**1.4176****
Husband's Approval	-1.4391	0	**0.2371****	-1.7905	0	**0.1669****	-1.2252	0	**0.2937****	-0.7443	0	**0.4751****
Spousal Communication	-0.1523	0.5611	0.8587	-0.394	0	**0.6744****	-1.0097	0	**0.3643****	-0.2393	0.0402	**0.7871***
Desire for child	1.5633	0	**4.7745****	1.146	0	**3.1456****	0.6039	0.002	1.8293	0.8595	0	**2.3619****
Constant	0.9212	0.0263		1.0053	0		1.1673	0.0029		1.1846	0.0001	
-2 log likelihood	902.624			6170.7			1138.1			2451.6		

* - Significant at 5 percent level of confidence
** - Significant at 1 percent level of confidence

contraception in future. The influence is most pronounced in Uttar Pradesh: women who have husband's approval are 83 percent less likely to have intention not to use contraception than women whose husband's do not approve of contraceptive use. Correspondingly, in Punjab women whose spouses approve of use are 76 percent less likely. In Kerala they are 71 percent less likely and in Andhra Pradesh 52 percent less likely to have intention not to use contraception as compared to women whose husbands do not approve. The results highlight the decisive role played by the male partner in the contraceptive behavior of the wife. The effect, however, is less in the south , where women enjoy greater autonomy than their northern counterparts.

In the case of other variables, some of them are significant in some states, whereas in other states they are not. Spousal communication is important in reducing the likelihood of intention not to use contraception, as expected, in the southern states of Kerala and Andhra Pradesh. In Kerala, women are 64 percent less likely to have intention not to use contraception if they communicate with their husbands. In Andhra Pradesh, the odds ratio is 0.79. In Uttar Pradesh, again, women who communicate with their husbands have only 33 percent less chance to have intention not to use contraception than women who do not communicate with their husbands.

Desire for future child is not significant in Kerala where fertility rates are already low. However, in other states where fertility levels are higher than replacement level (NFHS, 1992-93), the aspect is important. Women who desire to have a future child are likely not to intend to use contraception. In Punjab, women who desire a future child are 4.77 times more likely not to use contraception than women who do not desire a future child. The corresponding

odds ratio in Uttar Pradesh and Andhra Pradesh are 3.15 and 2.36 respectively. Religious affiliations, as mentioned in chapters II and III have significant influence on family planning acceptance. Muslims especially, have lower adoption rate of contraception than Hindus. The effect is important in the developed state of south, i.e. Kerala, where Muslims are 1.90 times more likely than Hindus to have intention not to use contraception in future. In the backward state of north i.e., Uttar Pradesh they are 1.40 times as likely as Hindus not to intend to use contraception. In Punjab, there is no difference in intention to use contraception among Hindus, Muslims and Sikhs, though Christians have 32 percent less chance than Hindus not to use contraception in future. In the southern states of Kerala and Andhra Pradesh Christians and Hindus show no significant difference. Thus it appears that Muslims are more backward than Hindus in states of Uttar Pradesh and Kerala.

Educational attainment is important only in the north. For example, in Punjab, respondents who completed primary school are 40 percent less likely than those who are illiterate not to use contraception and those who have completed middle school are 49 percent less likely. In Uttar Pradesh, women who have completed primary education are 31 percent less likely not to use contraception in future and those with middle school education are 38 percent less likely. Women who have high school education are 46 percent less likely than those who had no schooling to not use contraception in Punjab. In Uttar Pradesh, they were 38 percent less likely. Thus with increasing levels of education upto middle school, the likelihood of intention not to use contraception decreases. With high school education, the effect of reducing such intention is less when compared with middle school education but high

when compared with primary schooling. That the influence of education is stronger in the backward state of Uttar Pradesh than Punjab shows that level of socio-economic development is of importance together with regional location of the states.

Work status of women has significant influence on intention not to use contraception in future, in the developed state of south i.e. Kerala and backward state of north i.e. Uttar Pradesh. In Kerala, contrary to expectations, working women are more likely to have intention not to use contraception in future (odds ration of 1.63). In Uttar Pradesh, the influence is in the desired direction : working women are 26 percent less likely than those who are not working to have intention not to use contraception. The explanation of such difference in effect may lie in the nature of work the women are engaged in, about which we are not sure.

Standard of living index emerges as an important predictor in the states of Punjab, Uttar Pradesh and Andhra Pradesh. Expectedly in Andhra Pradesh better standard of living reduces the likelihood of not to using contraception in future : women with high standard of living are 40 percent less likely to have intention not to use contraception than women with low standard of living and women with medium standard of living are about 30 percent less likely than women with low standard of living. In contrast, high standard of living increases the likelihood of intention not to use contraception in the north (odds ratio of 2.08 in Punjab and 1.42 in Uttar Pradesh). The reason for this is not clear – perhaps, the result reflects the stronger preference for sons in these northern states compared with the southern states.

In addition to the above variables that are significant in more than more than one state, some other variables are also significant. These variables are significant in one state but not in other states. For instance, number of living sons is important only in Uttar Pradesh, where women having more than 2 living sons compared with women with less than 2 living sons are 35 percent less likely to have intention not to use contraception in future. This is expected, as son preference is very strong in Uttar Pradesh. In Punjab, urban women are 1.53 time more likely than rural women to have intention not to use contraception, which is contrary to expectations. There is no significant caste difference in intention not to use contraception in Punjab (odds ratio of 0.97). In the relatively backward Andhra Pradesh women who are exposed to mass media are 1.41 times more likely to have intention not to use contraception in future than those who are not exposed. The relationship therefore is not as expected. Though media has been found to be a catalyst in development process, certain level of socio-economic development is instrumental in realizing its effect (Chundi and Srivastava ,2000).

Intention not to use contraception excluding women wanting children :

Table 4.20 shows age of woman and husband's approval of using contraception are the two important variables that independently influence intention not to use contraception among women who do not want children, just like when we include in our analysis women who want children.

Increasing age of women increases the likelihood of intention not to use contraception. The effect is most prominent in Punjab : women aged 25-34 years are 8.64 times more likely and women aged above 35 years are 375.23

Table 4.20. Results of the logistic regression analysis for intention not to use contraception excluding women wanting children in Punjab, Uttar Pradesh, Kerala, and Andhra Pradesh,1992-93

Variable	Punjab			Uttar Pradesh			Kerala			Andhra Pradesh		
	B	Sig	Exp(B)	B	Sig	Exp(B)	B	Sig	Exp(B)	B	Sig	Exp(B)
Age		0	**		0	**		0	**		0	**
25-34	2.1569	0	8.6444**	0.5623	0	1.7546**	0.6509	0.0038	1.9173**	1.8715	0	6.498**
35 & above	5.9275	0	375.234**	2.4036	0	11.0626**	4.0478	0	57.2693**	4.9917	0	147.1827**
No. of living sons	0.1301	0.7241	1.139	-0.1544	0.1281	0.857	-0.2763	0.4993	0.7586	0.117	0.706	1.1241
Exp. Of child loss	-0.1815	0.5774	0.834	0.1609	0.0794	1.1746	0.6262	0.094	1.8706	0.4469	0.0481	1.5635**
Residence	0.6839	0.0382	1.9815*	0.1569	0.2016	1.1698	0.2541	0.2748	1.2893	-0.0398	0.889	0.961
Education		0.0288	*		0.0004	**		0.1632			0.1658	
Primary	-0.9308	0.0141	0.3942*	-0.3777	0.019	0.6854**	-0.4543	0.1794	0.6349	0.166	0.5901	1.1806
Middle	-0.7511	0.1542	0.4719	-0.7102	0.0008	0.4916**	-0.6403	0.0904	0.5271	-0.0107	0.9807	0.9893
High School +	-1.2148	0.0111	0.2968*	-0.5626	0.0055	0.5697**	-0.9567	0.0251	0.3842*	-0.9352	0.0466	0.3925*
Religion		0.7636			0	**		0.0222	*		0.0067	**
Muslim	-0.2714	0.7659	0.7623	0.6346	0	1.8863**	0.6715	0.0077	1.9571**	0.6815	0.0302	1.9768**
Sikhs	0.0648	0.8323	1.0669									
Christians	-0.872	0.3722	0.4181				-0.1751	0.5698	0.8394	-1.2093	0.0484	0.2984*
Others	1.9289	0.3573	6.882	0.0376	0.9012	1.0383	0.5301	0.6835	1.6992	2.1705	0.0487	8.7626*
Caste	-0.1259	0.7115	0.8817	0.118	0.2856	1.1252	-0.2963	0.5868	0.7435	-0.1279	0.5705	0.8799
Work Status	0.6824	0.1533	1.9786	-0.0397	0.7149	0.9611	0.2873	0.361	1.3329	0.2347	0.2721	1.2646
Standard of living		0.0068	**		0.0005	**		0.3036			0.5813	
Medium SLI	0.179	0.6668	1.1961	0.1497	0.1412	1.1615	-0.0033	0.9888	0.9967	-0.2527	0.3007	0.7767
High SLI	1.3267	0.0129	3.7685**	0.7683	0.0001	2.1562**	0.4629	0.1847	1.5887	-0.2262	0.6281	0.7975
Exposure to mass media	-0.2088	0.5354	0.8116	-0.406	0.0001	0.6663**	0.0396	0.8788	1.0404	0.2534	0.2508	1.2884
Husband's Approval	-2.0138	0	0.1335**	-1.9197	0	0.1467**	-1.6659	0	0.189**	-1.3867	0	0.2499**
Spousal Communication	-0.198	0.5939	0.8204	-0.4163	0	0.6595**	-0.9543	0	0.3851**	-0.6461	0.0007	0.5241**
Constant	-0.3997	0.5089		0.2849	0.0445		0.4375	0.3786		0.7677	0.0514	
-2 log likelihood	409.591			3681.351			716.637			789.951		

* - Significant at 5 percent level of confidence
** - Significant at 1 percent level of confidence

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times more likely than women aged 13-24 years to have intention not to use contraception in future. The corresponding odds ratio for Uttar Pradesh are 1.75 for age group 25-35 years and 11.06 for age group 35 and above. The effect of age is also important in the southern states. In Andhra Pradesh, women aged 25-34 years are 6.5 times as likely as younger women to have intention not to use contraception; women aged 35 years and above are 147.18 times as likely as younger women to not to intend to use contraception in future. In Kerala, women aged 25-35 years are 1.92 times more likely and women aged above 35 years are 57.27 times more likely not to intend to use contraception as against women below 25 years of age. These findings corroborate the hypothesis that older women have greater intention of not using any family planning method in future.

Husband's approval decreases the likelihood of intention not to use contraception in future. The influence of husband's approval is pronounced in the north : in Punjab, women whose husband's approve of contraceptive use are 87 percent less likely and in Uttar Pradesh 85 percent less likely not to use contraception than women who do not have husband's approval. In Kerala, women are 81 percent less likely not to intend to use contraception if their husband's approve of contraception. In Andhra Pradesh the corresponding odds ratio is 0.25. These results the importance of the decision of the male partner as mentioned in the preceding section.

Table 4.20 shows that among educational levels only high school education is significant among women who do not want children in all the study states. For example, in Punjab, women who have completed high school education are 70 percent less likely than illiterate women to have intention not

to use contraception. In Uttar Pradesh, they have 43 percent less chance not to intend to use contraception than illiterates. Southern states of Kerala and Andhra Pradesh show women who have completed high school are 62 percent and 61 percent less likely respectively than women who had no schooling to have intention not to use contraception in future. Primary schooling has significant bearing on the dependent variable in north only : in Punjab, women with primary education are 61 percent less likely than women with no education to have intention not to use contraception; in Uttar Pradesh the corresponding odds-ratio is 0.69. In Uttar Pradesh, respondents with middle school complete are 51 percent less likely than women with no schooling to have intention not to use contraception.

Other variables have significant bearing on the dependent variables in some states but not in others. Spousal communication is again an important factor influencing intention not to use contraception in the backward state of north and the two southern states − women who communicate with their spouses are less likely to have intention not to use contraception in future. The result is similar to the finding when we include women wanting children in the analysis. The influence is more pronounced in south than in north − in Kerala, for instance, women are 61 percent less likely not to intend to use contraception than those who do not communicate with their husbands, and in Andhra Pradesh, they are 48 percent less likely. In the north in Uttar Pradesh women who communicate with their husbands are only 34 percent less likely than those who do not communicate to have intention not to. Thus spousal communication is more important in the South use contraception, where female autonomy is greater.

Religion is important in the state of Uttar Pradesh in the north and the two southern states. For instance, Muslim women have higher non-intention of contraceptive use when compared with Hindu women in Uttar Pradesh, and in the south. Muslim women are 1.89 as likely as Hindu women to have intention not to use contraception in Uttar Pradesh are. In Kerala and Andhra Pradesh, they are 1.96 times and 1.98 times more likely than Hindus to have non-intention. In Andhra Pradesh, Christians are less likely than Hindus to have intention not to use contraception (odds ratio of 0.30).

Standard of living index, more precisely, high standard of living is an important variable in the northern states. However the bearing is contrary to expectations. In Punjab, women with high standards of living are 3.77 times as likely as women with low standard of living not to intend to use contraception in future. The corresponding odds ratio of Uttar Pradesh is 2.16.

Experience of childloss, place of residence and exposure to mass media are significant in one state but not in others. In Andhra Pradesh women having experienced child loss are 1.56 times more likely not to intend to use contraception than women who have had no child loss. Urban women in Punjab are 1.98 times more likely not to intend to use contraception than rural women. In Uttar Pradesh, women who are exposed to mass media are 33 percent less likely to have intention not to use contraception than those who are not exposed.

Number of living sons, caste and work status of women has no significant bearing in any of the states.

Thus to *summarize* the results of the two logistic regression analysis of intention not to use contraception in future, including women wanting children and excluding women wanting children, we find that age of woman and husband's approval of contraceptive use are the most important among the selected variables. With increasing age of women, the probability of intention not to use contraception increases. A more important finding is that husband's approval decreases the likelihood of intention not to use contraception in future. This shows male involvement in family planning is extremely important for contraceptive use.

Spousal communication in another important variable that decreases the likelihood of intention not to use contraception, in the south both in advanced and backward states of Kerala and Andhra Pradesh, both including women wanting children and excluding women wanting children and excluding women wanting children. It is also important in Uttar Pradesh.

Educational attainment is important only in the north, when we include women wanting children in the analysis: with increasing levels of education, the likelihood of intention not to use contraception decreases. High school education decreases the said intention in all states, when women do not want any more children.

Muslims have higher intention not to use contraception in future (including women wanting children) than Hindus in Uttar Pradesh and Kerala. Excluding women wanting children, Muslims have more likelihood of such non-intention than Hindus in Uttar Pradesh as well as in South.

Desire for future child, an intervening variable, in the analysis of women wanting children, increases the likelihood of intention not to use contraception

in future, in the demographically backward northern region and backward state of south i.e. Andhra Pradesh.

Contrary to expectations, better standard of living increases the likelihood of intention not to use contraception, in the two states of north. Surprisingly again, working women in Kerala are more likely not to use contraception, whereas they are less likely in Uttar Pradesh. Perhaps, the difference in the effect of work status of women lies in the difference in nature of work the women are employed in the two states about which we are not sure. Experience of childloss did not show the expected effect in any of the states. However, in Andhra Pradesh women who have experienced childloss are more likely not to use contraception, when we exclude women wanting children from the analysis. Urbanisation which is only significant in Punjab, increases the likelihood of the intention.

Now, we discuss the logistic regression analysis of another interesting group of women – never users of contraception not intending to use in future who are regarded as 'hardcore' group of women as far a family planning programme is concerned. It will help us in understanding the factors that influence contraceptive behaviour of women better.

Never users with intention not to use contraception :

Table 4.21 shows the results of logistic regression analysis of currently married women who never used contraception and do not intend to do so in future as against women who are currently using contraception.

Table 4.21. Results of the logistic regression analysis of never users of contraception and not intending to use contraception in Punjab, Uttar Pradesh, Kerala,and Andhra Pradesh,1992-93

Variable	Punjab			Uttar Pradesh			Kerala			Andhra Pradesh		
Variable	B	Sig	Exp(B)	B	Sig	Exp(B)	B	Sig	Exp(B)	B	Sig	Exp(B)
Age		0	**		0	**		0.0002	**		0.0002	**
25-34	-0.1235	0.6231	0.8838	-0.5958	0	0.5511**	-0.2934	0.2107	0.7457	-0.8972	0.0079	0.4077**
35 & above	1.7082	0	5.5192**	0.5023	0.0027	1.6525**	0.7056	0.0228	2.025**	0.5402	0.2292	1.7163
No. of living sons	0.2705	0.2829	1.3107	-0.2722	0.0495	0.7617*	-0.4118	0.2239	0.6625	0.134	0.8108	1.1434
Exp. Of child loss	0.0901	0.7134	1.0942	0.2908	0.0154	1.3375*	0.5456	0.0721	1.7257	0.6759	0.151	1.9658
Residence	0.3149	0.1316	1.3702	-0.4996	0	0.6068**	0.0431	0.8236	1.0441	-0.13	0.7116	0.8781
Education		0.0074	**		0	**		0	**		0.0003	**
Primary	-0.5113	0.0384	0.5997**	-0.7117	0.0107	0.4908**	-0.4388	0.1645	0.6448	0.9826	0.1361	2.6714
Middle	-0.4825	0.1377	0.6172	-0.5279	0	0.5899*	-1.1794	0.0006	0.3075**	-1.0563	0.0284	0.3477*
High School +	-0.946	0.0007	0.3883**	-1.1687	0.0026	0.3108**	-1.5761	0	0.2068**	-1.4453	0.0011	0.2357**
Religion		0.8636			0.105	**		0.0016	**		0.1852	
Muslim	-0.1923	0.7835	0.8251	0.241	0.0032	1.2726	0.6615	0.0031	1.9376**	-0.7618	0.0443	0.4668*
Sikhs	-0.1823	0.3654	0.8333									
Christians	0.4127	0.6346	1.5109				-0.3347	0.1499	0.7155	-0.0654	0.9267	0.9367
Others	0.3943	0.784	1.4833	-0.9507	0.555	0.3865**	0.9283	0.48	2.5302	-1.7148	0.2863	0.18
Caste	0.2442	0.2684	1.2766	0.0916	0.4528	1.0959	0.2477	0.5473	1.2811	0.3093	0.5042	1.3624
Work Status	0.3635	0.238	1.4384	0.0999	0.0242	1.105	0.1236	0.5853	1.1315	-0.1871	0.5624	0.8293
Standard of living		0.2127			0.21	*		0.237			0.0032	**
Medium SLI	-0.2211	0.4633	0.8016	-0.1621	0.0067	0.8503	-0.3349	0.1058	0.7154	-0.338	0.4029	0.7132
High SLI	0.1567	0.6502	1.1696	-0.5016	0.3868	0.6056**	-0.3841	0.1855	0.6811	-1.4829	0.0025	0.227**
Exposure to mass media	-0.9085	0	0.4031**	-0.1094	0	0.8964	0.1471	0.5473	1.1585	-0.5799	0.2401	0.56
Husband's Approval	-2.8527	0	0.0577**	-2.4636	0	0.0851**	-1.7343	0	0.1765**	-2.0398	0.0064	0.1301**
Spousal Communication	-1.5311	0	0.2163**	-0.7807	0	0.4581**	-1.4009	0	0.2464**	-1.2054	0.0009	0.2996**
Desire for child	2.5473	0	12.7725**	1.5724	0	4.8182**	1.335	0	3.8**	1.597	0	4.938**
Constant	1.8826	0		1.9349	0		0.761			3.6383		
-2 log likelihood	847.582			2720.552			915.286			401.174		

* - Significant at 5 percent level of confidence
** - Significant at 1 percent level of confidence

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Husband's approval, spousal communication and desire for future child are the significant factors that influence the dependent variable. Husband's approval, as envisaged, decreases the likelihood of women being never users who do not intend to use contraception in future. The influence is most prominent in the north, especially in Punjab, where women who enjoy their husband's approval of contraceptive use are 94 percent less likely to be never users not intending to use contraception in future. The corresponding odds ratio for Uttar Pradesh is 0.09. In Andhra Pradesh, they have 87 percent less chance to be never users not intending to use contraception than are current users. Correspondingly in Kerala, the odds ratio stands at 0.18.

Spousal communication also decreases the likelihood of women being never users not intending to use contraception in future. Those who communicate with their spouses are more likely to be current users. In Punjab, they are 78 percent less likely to be never users not intending to use contraception if they communicate with their husbands. The effect, however, is not so pronounced in Uttar Pradesh (odds ratio of 0.46), perhaps due to low status of women in the state, so that even if women communicate with their husbands the will of the latter prevails. In the south, the odds ratio are 0.25 and 0.30 for Kerala and Andhra Pradesh respectively.

Desire for future child, increases the probability of women being never users not intending to use contraception in future, to a great extent. In Punjab, women who desire more children are 12.77 times more likely to be never users not intending to use contraception. The odd ratio for other states are 4.82 (Uttar Pradesh), 3.80 (Kerala) and 4.94 (Andhra Pradesh). Thus we can

conclude, that desired family size is an important variable determining contraceptive usage.

Age of women and level of education is significant in all states in general, but the particular categories of these variables, vary across the states in their significance and effect. Women aged 25-35 years are less likely to be never users not intending to use contraception in future and have higher probability of being current users than women aged 13-24 years in Uttar Pradesh (oods ratio of 0.55) and Andhra Pradesh (odds ratio of 0.41). In the developed state of north and south, this age group has no significant effect. On the other hand, women above 35 years of age are more likely to be never users not intending to use contraception in future, even in Uttar Pradesh where they are 1.65 times more likely Punjab has an odds ratio of 5.51 and Kerala of 2.03.

In Punjab, primary and high school education decreases the likelihood of women being never users not intending to use contraception with high school education having the greater impact (odds ratios of 0.60 and 0.39 respectively). In Uttar Pradesh the effect of educational level is most important if women has completed high school (69 percent less chance), followed by primary school education (42 percent less likely) and middle school education (42 percent less likely). In the southern states, primary schooling does not have any effect. With increasing education after primary school, the likekihood of women being never users not intending to use decreases. In Kerala,middle school education decreases the chance by 69 percent and high school education decreases it by 79 percent. The corresponding odds ratios for Andhra Pradesh are 0.35 and 0.24.

Among other variables, religion is important only in the Southern states of Kerala and Andhra Pradesh where Hindu-Muslim difference is pronounced. While in Kerala Muslims are 1.94 times more likely than Hindus to be never users not intending to use contraception, in Andhra Pradesh, surprisingly they are 53 percent less probable.

Variables like number of living sons, experience of childloss, place of residence and standard of living show significant influence only in Uttar Pradesh. The effect of all these variables are in the anticipated direction. For instance, women with more than two living sons have 24 percent less chance to be never users not intending to use contraception than current users. This again, like the former analysis of intention not to use contraception, reflects the phenomenon of son preference in Uttar Pradesh. Experience of child loss increases the likelihood of women being never users with no intention of future use by 1.34 times.

Urbanisation and better standard of living decreases the likelihood of women being never users not intending to use contraception in future in Uttar Pradesh. Urban women and women with high standard of living are both 39 percent less likely to be never users not intending to use contraception in future than be current users. This reflects the modernising influence of urbanisation. Better standard of living increases the access to information and contraceptives.

Exposure to mass media is only important in Punjab where it decreases the chances of women being never users not intending to use contraception in future (odds ratio of 0.40). Caste of women and their work status have no

significant influence on the women's contraceptive usage status in any of the states.

Comparing the results of the analysis of currently married women not intending to use contraception and currently married never users of contraception not intending to use contraception in future; we come across similar findings as far as the major factors are concerned.

Husband's approval of contraceptive use, spousal communication and desire for future child are important factors in both the cases. Husband's approval and spousal communication decreases the likelihood of non-use of contraception and desire for future child increases the likelihood. Older women, especially women above the age of 35 years are more likely not to use contraception. Education decreases the probability non-use and intention not to use.

Among other variables, religious affiliations is another important variable. Muslim women are clearly more likely to be never users not intending to use contraception in Kerala and Andhra Pradesh. Regarding intention not to use contraception, Muslims are more likely than Hindus to have such intention, in states of Kerala and Uttar Pradesh, and when we exclude women wanting children they are more likely to not use in Kerala, Uttar Pradesh and Andhra Pradesh.

More number of living sons decreases the likelihood of both events in the state of Uttar Pradesh.

Better standard of living, experience of childloss and place of residence do not show the expected results in the states where they are significant, in the analysis of intention not to use contraception. But they have the anticipated

effect in Uttar Pradesh (the only state where they have significant influence) in the analysis of never users not intending to use contraception in future. Exposure to mass media also show the expected influence in Punjab in the analysis.

Work status has important effect on intention not to use contraception showing expected result in Uttar Pradesh but not in Kerala. This variable is not important in the analysis of never users.

Limitations of the Study

The current study of intentions not to use contraception in future suffers from certain limitations, which could have been avoided if the relevant data for all the variables were available. For instance, a women's health seeking behaviour could have been measured by a proxy variable of whether she had any antenatal check-up or whether she went to any modern health facility for treatment of her ill child. However, this information was not available for women who were never pregnant and women whose children were not reported ill. Another variable of perception of quality of care of family planning could not be measured, as this information was available only for sterilized women. It may be mentioned here, currently NFHS-2 is being carried out throughout India. In the second round some of the above mentioned limitations have been taken care of. Questions like –"when members of your household get sick, where do they generally go for treatment" and a whole section (3A) in the Women's questionnaire pertaining to quality of care of health has been

included in the study. An analysis based on NFHS-2 data can include the above-mentioned variables, whenever the NFHS-2 data is available.

CHAPTER V

CONCLUSION

Intention regarding use contraception in future is an important dimension of contraceptive use, which needs to be examined to identify the factors that influence it. As already mentioned earlier, intention to use contraception is a strong predictor of subsequent use (Curtis and Westoff, 1996). The factors that discourage intention not to use contraception among current non-users if identified can help policy makers and programme administrators to bring about necessary changes in the family planning policy. The study also helps us to identify the potential groups of contraceptive users. All these will help to raise the contraceptive prevalence rate and bring down the total fertility rate.

This study finds the husband's approval of contraceptive use is one of the major factors influencing intentions regarding future contraceptive use. The female-only approach of our family planning policy generates a sense of uneasiness among men who view themselves as undesirable in matters of family planning. Some men view family planing with suspicion, as they feel it undermines their authority in the family. The family planning policy should increasingly pay attention to the male partner as well, to make the approach more holistic. The reasons for the urgent need to include men in the purview of the programme are not hard to find. Men and women, most often than not

differ in their fertility preferences and in the Indian Society, the view of the husbands prevail over their wives. Even though most modern methods of contraception are female methods, the husbands take decision of their use, for they are the major and sometimes the only contributors to household income. Thus childbearing of the wives has obvious impact on the husbands financially, as they look after their children.

The male-involvement in family planning decision making is also highlighted by the crucial and positive bearing of spousal communication in future contraceptive use in most states. Various studies have also concluded that husband-wife communication increases the likelihood of contraceptive use (Lasee and Becker, 1997; Mahmood and Ringheim 1993; Mitchell, 1972).

This study, rather not surprisingly finds that desire for future child is one of the potent variables which increases the likelihood of intention not to use contraception in future in states which have not reached replacement level of fertility. Every possible means should be employed to teach the people the advantages of small families. In the family planning programme, provision of providing spacing methods of contraception should be encouraged, to give wider choices to the women.

Education emerges out as another factor that encourages contraceptive use; this calls for universalisation of education. Since younger women are likely to have higher intention to use contraception in future, the family planning programme should reach out to them providing them quality services and catering to their method choice.

The recently launched National Population Policy, 2000 aims at bringing down the total fertility rates to replacement level by 2010 and stabilise

the population by 2045, at a level consistent with sustainable economic growth, social development, and environmental protection. It seeks to initiate several laudable measures to achieve its goals. Among the 14 national socio-demographic goals, is universalisation of education upto age 14 by making it free and compulsory, and reduction of dropouts from primary and secondary levels to below 20 percent. It also seeks to universalise access to information about contraception according to choice and aims at vigorously promoting the small family norm.

Among other strategic themes related to health and nutrition of women and children and undeserved population in slums, increased participation of men in planned parenthood has been identified as a crucial area to be worked upon. It is a commendable step taken by the Government, which needs to follow to remove misconceptions about family planning and convince men the importance of contraception for the general health and well being of their family.

For the National Population Policy to be effective this study clearly brings out the role of husbands in contraceptive usage. The new population policy should provide a high priority to this area, which has been hitherto neglected.

APPENDIX - I

STANDARD OF LIVING INDEX

Standard of Living Index (Roy and Jayachandran, 1995) has been calculated to understand the standard of living of households of the interviewed women. Calculation procedure is given below.

Appendix Table : Scores for the variables used in the computation of Standard of Living Index (SLI)

Variable	Scores
1. Separate Room for cooking	Yes = 1 No = 0
2. Type of House	Pucca = 2 Semi-Pucca = 1 Kachha = 0
3. Source of Lighting	Electricity = 2 Kerosene or gas or oil = 1 Other = 0
4. Fuel for Cooking	Electricity or gas or bio-gas = 2 Coal or charcoal or kerosene = 1 Other =0
5. Source of drinking water	Well or pipe or hand-pump (Own) = 2 Well or pipe or hand-pump, (Public) = 1 Other = 0
6. Toilet Facility	Own flush toilet =3 Flush toilet (Public or shared) or own pit toilet = 2 Shared pit toilet or public pit toilet =1 Other = 0
7. Ownership of live stock	Bullock = 2 Cow = 2 Buffalo = 2 Goat = 1 Sheep = 1 Camel = 1
8. Ownership of goods	Sewing Machine = 2 Clock / Watch = 1 Sofa set = 2 Fan = 2 Radio / Transistor = 2 Refrigerator = 3 Television = 3 VCR / VCP = 3 Bicycle = 2 Motorcycle/ Scooter =3 Car = 4
Standard of Living Index (SLI)	Score Range 0 to 48
Categories of SLI Low SLI Medium SLI High SLI	**Range** 0 to 9 10 to 19 20 and above

DETAILED RESULTS OF THE LOGISTIC REGRESSION ANALYSIS : PUNJAB

Intention not to use contraception including wp women wanting children

Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Age			198.1972	2	0	0.3791	
25-34	0.6594	0.2052	10.3262	1	0.0013	0.0785	1.9337
35 & above	4.0555	0.3038	178.2356	1	0	0.3611	57.714
No. of living sons	-0.065	0.2336	0.0774	1	0.7808	0	0.9371
Exp. Of child loss	-0.2027	0.2353	0.7415	1	0.3892	0	0.8166
Residence	0.4317	0.2168	3.9662	1	0.0464	0.0381	1.5399
Education			7.7911	3	0.0505	0.0364	
Primary	-0.5039	0.2382	4.4741	1	0.0344	-0.0428	0.6042
Middle	-0.6704	0.3256	4.2392	1	0.0395	-0.0407	0.5115
High School +	-0.6164	0.2871	4.6105	1	0.0318	-0.044	0.5399
Religion			1.9764	4	0.7401	0	
Muslim	0.0042	0.6275	0	1	0.9947	0	1.0042
Sikhs	0.0269	0.1965	0.0187	1	0.8912	0	1.0273
Christians	-0.3771	0.5862	0.4139	1	0.52	0	0.6858
Others	1.6876	1.381	1.4935	1	0.2217	0	5.4067
Caste	-0.0325	0.2099	0.024	1	0.8769	0	0.968
Work Status	0.555	0.3477	2.5486	1	0.1104	0.0201	1.742
Standard of living			6.2316	2	0.0443	0.0406	
Medium SLI	0.2362	0.248	0.9068	1	0.341	0	1.2664
High SLI	0.7344	0.3185	5.3179	1	0.0211	0.0496	2.0843
Exposure to mass media	-0.2827	0.2071	1.8635	1	0.1722	0	0.7537
Husband's Approval	-1.4391	0.2336	37.9443	1	0	-0.1631	0.2371
Spousal Communication	-0.1523	0.262	0.3379	1	0.5611	0	0.8587
Desire for child	1.5633	0.2182	51.3372	1	0	0.1911	4.7745
Constant	0.9212	0.4146	4.9379	1	0.0263		

Intention not to use contraception excluding women wanting children

Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Age			224.9738	2	0	0.4643	
25-34	2.1569	0.4772	20.4274	1	0	0.1341	8.6444
35 & above	5.9275	0.5016	139.624	1	0	0.3664	375.234
No. of living sons	0.1301	0.3686	0.1246	1	0.7241	0	1.139
Exp. Of child loss	-0.1815	0.3257	0.3105	1	0.5774	0	0.834
Residence	0.6839	0.33	4.294	1	0.0382	0.0473	1.9815
Education			9.0381	3	0.0288	0.0544	
Primary	-0.9308	0.3791	6.0279	1	0.0141	-0.0627	0.3942
Middle	-0.7511	0.5272	2.03	1	0.1542	-0.0054	0.4719
High School +	-1.2148	0.4784	6.4478	1	0.0111	-0.0659	0.2968
Religion			1.8483	4	0.7636	0	
Muslim	-0.2714	0.9114	0.0887	1	0.7659	0	0.7623
Sikhs	0.0648	0.3058	0.0448	1	0.8323	0	1.0669
Christians	-0.872	0.9771	0.7964	1	0.3722	0	0.4181
Others	1.9289	2.0956	0.8472	1	0.3573	0	6.882
Caste	-0.1259	0.3405	0.1368	1	0.7115	0	0.8817
Work Status	0.6824	0.4778	2.0395	1	0.1533	0.0062	1.9786
Standard of living			9.9826	2	0.0068	0.0764	
Medium SLI	0.179	0.4158	0.1854	1	0.6668	0	1.1961
High SLI	1.3267	0.5334	6.185	1	0.0129	0.0639	3.7685
Exposure to mass media	-0.2088	0.3369	0.3841	1	0.5354	0	0.8116
Husband's Approval	-2.0138	0.3675	30.0277	1	0	-0.1653	0.1335
Spousal Communication	-0.198	0.3713	0.2843	1	0.5939	0	0.8204
Constant	-0.3997	0.605	0.4363	1	0.5089		

Never users of contraception not intending to use contraception infuture

Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Age			56.9624	2	0	0.1989	
25-34	-0.1235	0.2512	0.2415	1	0.6231	0	0.8838
35 & above	1.7082	0.3123	29.9277	1	0	0.1444	5.5192
No. of living sons	0.2705	0.2519	1.153	1	0.2829	0	1.3107
Exp. Of child loss	0.0901	0.2452	0.1349	1	0.7134	0	1.0942
Residence	0.3149	0.2089	2.2737	1	0.1316	0.0143	1.3702
Education			11.9942	3	0.0074	0.0669	
Primary	-0.5113	0.2469	4.2885	1	0.0384	-0.0413	0.5997
Middle	-0.4825	0.325	2.2035	1	0.1377	-0.0123	0.6172
High School +	-0.946	0.2791	11.4866	1	0.0007	-0.0842	0.3883
Religion			1.287	4	0.8636	0	
Muslim	-0.1923	0.6999	0.0755	1	0.7835	0	0.8251
Sikhs	-0.1823	0.2014	0.8192	1	0.3654	0	0.8333
Christians	0.4127	0.8684	0.2259	1	0.6346	0	1.5109
Others	0.3943	1.4382	0.0752	1	0.784	0	1.4833
Caste	0.2442	0.2206	1.2251	1	0.2684	0	1.2766
Work Status	0.3635	0.3081	1.3925	1	0.238	0	1.4384
Standard of living			3.0955	2	0.2127	0	
Medium SLI	-0.2211	0.3015	0.538	1	0.4633	0	0.8016
High SLI	0.1567	0.3454	0.2057	1	0.6502	0	1.1696
Exposure to mass media	-0.9085	0.2236	16.5069	1	0	-0.1041	0.4031
Husband's Approval	-2.8527	0.3348	72.589	1	0	-0.2296	0.0577
Spousal Communication	-1.5311	0.3103	24.3444	1	0	-0.1292	0.2163
Desire for child	2.5473	0.2632	93.6998	1	0	0.2617	12.7725
Constant	1.8826	0.462	16.6073	1	0		

DETAILED RESULTS OF THE LOGISTIC REGRESSION ANALYSIS : UTTAR PRADESH

Intention not to use contraception including wp women wanting children

Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Age			2.98E+02	2	0	0.1926	
25-34	0.0571	7.90E-02	0.5225	1	0.4698	0	1.0588
35 & above	1.7227	0.1165	2.19E+02	1	0	0.1652	5.5997
No. of living sons	-0.4317	9.45E-02	20.8881	1	0	-0.049	0.6494
Exp. Of child loss	0.0129	7.48E-02	0.0298	1	0.8629	0	1.013
Residence	0.0819	9.60E-02	0.7281	1	0.3935	0	1.0853
Education			25.1749	3	0	0.0492	
Primary	-0.3648	1.08E-01	11.4355	1	0.0007	-0.035	0.6943
Middle	-0.4791	0.1326	13.0485	1	0.0003	-0.037	0.6193
High School +	-0.4761	0.1381	11.8854	1	0.0006	-0.035	0.6212
Religion			17.1042	2	0.0002	0.0406	
Muslim	0.3332	9.88E-02	11.3762	1	0.0007	0.0344	1.3954
Others	-0.5323	0.2431	4.7958	1	0.0285	-0.019	0.5873
Caste	0.055	8.51E-02	0.418	1	0.5179	0	1.0566
Work Status	-0.2976	8.54E-02	12.1325	1	0.0005	-0.036	0.7426
Standard of living			6.0295	2	0.0491	0.016	
Medium SLI	0.088	7.71E-02	1.302	1	0.2539	0	1.092
High SLI	0.3477	0.1418	6.0149	1	0.0142	0.0225	1.4158
Exposure to mass media	-0.1289	7.71E-02	2.7968	1	0.0945	-0.01	0.8791
Husband's Approval	-1.7905	7.33E-02	5.97E+02	1	0	-0.274	0.1669
Spousal Communication	-0.394	7.68E-02	23.3059	1	0	-0.055	0.6744
Desire for child	1.146	7.60E-02	2.27E+02	1	0	0.1685	3.1456
Constant	1.0053	0.1126	7.98E+01	1	0		

Intention not to use contraception excluding women wanting children

Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Age			4.11E+02	2	0	0.2704	
25-34	0.5623	0.1065	27.8534	1	0	0.0681	1.7546
35 & above	2.4036	0.1294	344.9659	1	0	0.2482	11.0626
No. of living sons	-0.1544	0.1015	2.3152	1	0.1281	-0.008	0.857
Exp. Of child loss	0.1609	0.0917	3.0764	1	0.0794	0.0139	1.1746
Residence	0.1569	0.1228	1.6308	1	0.2016	0	1.1698
Education			18.333	3	0.0004	0.0471	
Primary	-0.3777	0.1484	6.4787	1	0.019	-0.028	0.6854
Middle	-0.7102	0.2114	11.2821	1	0.0008	-0.041	0.4916
High School +	-0.5626	0.2028	7.6919	1	0.0055	-0.032	0.5697
Religion			29.3673	2	0	0.0675	
Muslim	0.6346	0.1172	29.3202	1	0	0.07	1.8863
Others	0.0376	0.3029	0.0154	1	0.9012	0	1.0383
Caste	0.118	0.1105	1.1402	1	0.2856	0	1.1252
Work Status	-0.0397	0.1086	0.1335	1	0.7149	0	0.9611
Standard of living			15.3393	2	0.0005	0.0451	
Medium SLI	0.1497	0.1017	2.165	1	0.1412	0.0054	1.1615
High SLI	0.7683	0.1962	15.3393	1	0.0001	0.0489	2.1562
Exposure to mass media	-0.406	0.1052	14.9024	1	0.0001	-0.048	0.6663
Husband's Approval	-1.9197	0.0905	4.50E+02	1	0	-0.287	0.1467
Spousal Communication	-0.4163	0.0938	19.7027	1	0	-0.056	0.6595
Constant	0.2849	0.1418	4.04E+00	1	0.0445		

Never users of contraception not intending to use contraception infuture

Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Age			8.12E+01	2	0	0.129	
25-34	-0.5958	1.31E-01	20.6642	1	0	-0.063	0.5511
35 & above	0.5023	0.1673	9.01E+00	1	0.0027	0.0389	1.6525
No. of living sons	-0.2722	1.39E-01	3.8574	1	0.0495	-0.02	0.7617
Exp. Of child loss	0.2908	1.20E-01	5.8666	1	0.0154	0.0289	1.3375
Residence	-0.4996	0.1303	14.706	1	0	-0.052	0.6068
Education			52.1526	3	0	0.0997	
Primary	-0.7117	0.1559	20.8343	1	0.0107	-0.064	0.4908
Middle	-0.5279	0.2068	6.5168	1	0	-0.098	0.5899
High School +	-1.1687	0.1721	46.1521	1	0.0026	0.0413	0.3108
Religion			11.927	2	0.105	0.0116	
Muslim	0.241	1.49E-01	2.6283	1	0.0032	-0.379	1.2726
Others	-0.9507	0.323	8.6618	1	0.555	0	0.3865
Caste	0.0916	1.55E-01	0.3484	1	0.4528	0.0272	1.0959
Work Status	0.0999	0.1582	0.3983	1	0.0242	0	1.105
Standard of living			7.444	2	0.21	-0.034	
Medium SLI	-0.1621	1.29E-01	1.5711	1	0.0067	0	0.8503
High SLI	-0.5016	0.1851	7.3432	1	0.3868	-0.258	0.6056
Exposure to mass media	-0.1094	1.26E-01	0.7489	1	0	-0.078	0.8964
Husband's Approval	-2.4636	1.40E-01	3.10E+02	1	0	0.1864	0.0851
Spousal Communication	-0.7807	1.42E-01	30.1397	1	0		0.4581
Desire for child	1.5724	1.23E-01	163.3313		0		4.8182
Constant	1.9349	0.17054	128.7376	1	0		

APPENDIX IV

DETAILED RESULTS OF THE LOGISTIC REGRESSION ANALYSIS : KERALA

Intention not to use contraception including wp women wanting children

Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Age			141.0139	2	0	0.2846	
25-34	0.3967	0.1701	5.4361	1	0.0197	0.0451	1.4869
35 & above	3.4449	0.3004	131.5048	1	0	0.2767	31.3412
No. of living sons	-0.4364	0.3706	1.3863	1	0.239	0	0.6464
Exp. Of child loss	0.5493	0.3282	2.8012	1	0.0942	0.0218	1.732
Residence	0.1954	0.1797	1.1818	1	0.277	0	1.2157
Education			3.5627	3	0.3127	0	
Primary	-0.1285	0.2849	0.2034	1	0.652	0	0.8794
Middle	-0.1641	0.3066	0.2866	1	0.5924	0	0.8486
High School +	-0.5302	0.3448	2.3641	1	0.1242	-0.015	0.5885
Religion			13.238	3	0.0041	0.0654	
Muslim	0.6414	0.1889	11.5279	1	0.0007	0.075	1.899
Christian	-0.0141	0.2333	0.0036	1	0.9519	0	0.986
Others	0.4236	0.9938	0.1816	1	0.67	0	1.5274
Caste	0.2356	0.3686	0.4086	1	0.5227	0	1.2657
Work Status	0.4894	0.2429	4.0601	1	0.0439	0.0349	1.6313
Standard of living			4.0871	2	0.1296	0.0072	
Medium SLI	-0.0738	0.1801	0.1678	1	0.6821	0	0.9289
High SLI	0.4052	0.2713	2.231	1	0.1353	0.0117	1.4996
Exposure to mass media	0.0621	0.204	0.0927	1	0.7607	0	1.0641
Husband's Approval	-1.2252	0.1565	61.298	1	0	-0.187	0.2937
Spousal Communication	-1.0097	0.1731	34.0088	1	0	-0.138	0.3643
Desire for child	0.6039	0.1957	9.5278	1	0.002	0.0667	1.8293
Constant	1.1673	0.3922	8.8568	1	0.0029		

Intention not to use contraception excluding wo women wanting children

Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Age			182.3376	2	0	0.3594	
25-34	0.6509	0.2251	8.3627	1	0.0038	0.0679	1.9173
35 & above	4.0478	0.3141	166.027	1	0	0.3446	57.2693
No. of living sons	-0.2763	0.409	0.4565	1	0.4993	0	0.7586
Exp. Of child loss	0.6262	0.3739	2.805	1	0.094	0.0241	1.8706
Residence	0.2541	0.2327	1.1926	1	0.2748	0	1.2893
Education			5.1205	3	0.1632	0	
Primary	-0.4543	0.3384	1.8027	1	0.1794	0	0.6349
Middle	-0.6403	0.3781	2.8674	1	0.0904	-0.025	0.5271
High School +	-0.9567	0.4272	5.0141	1	0.0251	-0.047	0.3842
Religion			9.6111	3	0.0222	0.0511	
Muslim	0.6715	0.2519	7.1062	1	0.0077	0.0608	1.9571
Christian	-0.1751	0.3081	0.3229	1	0.5698	0	0.8394
Others	0.5301	1.3002	0.1662	1	0.6835	0	1.6992
Caste	-0.2963	0.5453	0.2954	1	0.5868	0	0.7435
Work Status	0.2873	0.3145	0.8346	1	0.361	0	1.3329
Standard of living			2.3839	2	0.3036	0	
Medium SLI	-0.0033	0.2332	0.0002	1	0.9888	0	0.9967
High SLI	0.4629	0.349	1.759	1	0.1847	0	1.5887
Exposure to mass media	0.0396	0.2599	0.0232	1	0.8788	0	1.0404
Husband's Approval	-1.6659	0.2103	62.7797	1	0	-0.21	0.189
Spousal Communication	-0.9543	0.2185	19.0809	1	0	-0.111	0.3851
Constant							

Never users of contraception not intending to use contraception infuture

Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Age			16.9977	2	0.0002	0.0938	
25-34	-0.2934	0.2344	1.5667	1	0.2107	0	0.7457
35 & above	0.7056	0.31	5.1813	1	0.0228	0.0464	2.025
No. of living sons	-0.4118	0.3386	1.479	1	0.2239	0	0.6625
Exp. Of child loss	0.5456	0.3034	3.2351	1	0.0721	0.0289	1.7257
Residence	0.0431	0.1935	0.0497	1	0.8236	0	1.0441
Education			25.6659	3	0	0.1153	
Primary	-0.4388	0.3156	1.9323	1	0.1645	0	0.6448
Middle	-1.1794	0.3456	11.649	1	0.0006	-0.081	0.3075
High School +	-1.5761	0.3771	17.4719	1	0	-0.102	0.2068
Religion			15.2828	3	0.0016	0.0792	
Muslim	0.6615	0.2233	8.7758	1	0.0031	0.0677	1.9376
Christian	-0.3347	0.2325	2.0731	1	0.1499	-0.007	0.7155
Others	0.9283	1.3144	0.4988	1	0.48	0	2.5302
Caste	0.2477	0.4116	0.3621	1	0.5473	0	1.2811
Work Status	0.1236	0.2265	0.2977	1	0.5853	0	1.1315
Standard of living			2.879	2	0.237	0	
Medium SLI	-0.3349	0.2071	2.6151	1	0.1058	-0.02	0.7154
High SLI	-0.3841	0.2901	1.7532	1	0.1855	0	0.6811
Exposure to mass media	0.1471	0.2445	0.3622	1	0.5473	0	1.1585
Husband's Approval	-1.7343	0.1796	93.2676	1	0	-0.248	0.1765
Spousal Communication	-1.4009	0.2139	42.9065	1	0	-0.166	0.2464
Desure for child	1.335	0.2395	31.0674	1	0	0.1402	3.8
Constant	0.761	0.4426	2.9556	1	0.0856		

APPENDIX V

DETAILED RESULTS OF THE LOGISTIC REGRESSION ANALYSIS : ANDHRA PRADESH

Intention not to use contraception including wp women wanting children

Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Age			157.2163	2	0	0.25	
25-34	0.6669	0.134	24.7708	1	0	0.0964	1.9483
35 & above	3.3862	0.2712	155.9296	1	0	0.2506	29.5529
No. of living sons	-0.2746	0.2696	1.037	1	0.3085	0	0.7599
Exp. Of child loss	0.2401	0.1554	2.3857	1	0.1225	0.0125	1.2714
Residence	-0.0355	0.1568	0.0512	1	0.821	0	0.9651
Education			2.611	3	0.4556	0	
Primary	0.1087	0.1776	0.3745	1	0.5405	0	1.1148
Middle	-0.0423	0.2172	0.038	1	0.8455	0	0.9586
High School +	-0.272	0.2137	1.62	1	0.2031	0	0.7618
Religion			1.4329	3	0.6978	0	
Muslim	0.1524	0.197	0.5986	1	0.4391	0	1.1647
Christian	-0.2736	0.3109	0.7745	1	0.3788	0	0.7607
Others	-0.0409	0.9815	0.0017	1	0.9668	0	0.9599
Caste	-0.0522	0.1321	0.156	1	0.6929	0	0.9491
Work Status	-0.0949	0.1235	0.5901	1	0.4424	0	0.9095
Standard of living			7.3181	2	0.0258	0.0368	
Medium SLI	-0.3317	0.1374	5.8313	1	0.0157	-0.04	0.7177
High SLI	-0.5068	0.2438	4.3222	1	0.0376	-0.031	0.6024
Exposure to mass media	0.349	0.1344	6.7463	1	0.0094	0.044	1.4176
Husband's Approval	-0.7443	0.1488	25.0192	1	0	-0.097	0.4751
Spousal Communication	-0.2393	0.1167	4.209	1	0.0402	-0.03	0.7871
Desure for child	0.8595	0.1371	39.2906	1	0	0.1233	2.3619
Constant	1.1846	0.3105	14.5549	1	0.0001		

Intention not to use contraception excluding wo women wanting children

Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Age			266.7441	2	0	0.4045	
25-34	1.8715	0.214	76.5007	1	0	0.2154	6.498
35 & above	4.9917	0.3067	264.8938	1	0	0.4046	147.1827
No. of living sons	0.117	0.3102	0.1423	1	0.706	0	1.1241
Exp. Of child loss	0.4469	0.2261	3.9073	1	0.0481	0.0345	1.5635
Residence	-0.0398	0.2853	0.0195	1	0.889	0	0.961
Education			5.0832	3	0.1658	0	
Primary	0.166	0.3082	0.2903	1	0.5901	0	1.1806
Middle	-0.0107	0.4435	0.0006	1	0.9807	0	0.9893
High School +	-0.9352	0.47	3.9592	1	0.0466	-0.035	0.3925
Religion			12.1998	3	0.0067	0.0621	
Muslim	0.6815	0.3145	4.6966	1	0.0302	0.041	1.9768
Christian	-1.2093	0.6126	3.8968	1	0.0484	-0.034	0.2984
Others	2.1705	1.1012	3.8847	1	0.0487	0.0343	8.7626
Caste	-0.1279	0.2255	0.3219	1	0.5705	0	0.8799
Work Status	0.2347	0.2137	1.2059	1	0.2721	0	1.2646
Standard of living			1.0851	2	0.5813	0	
Medium SLI	-0.2527	0.2442	1.0709	1	0.3007	0	0.7767
High SLI	-0.2262	0.4671	0.2347	1	0.6281	0	0.7975
Exposure to mass media	0.2534	0.2207	1.3187	1	0.2508	0	1.2884
Husband's Approval	-1.3867	0.2267	37.4046	1	0	-0.149	0.2499
Spousal Communication	-0.6461	0.1907	11.4743	1	0.0007	-0.077	0.5241
Constant	0.7677	0.394	3.7962	1	0.0514		

Never users of contraception not intending to use contraception infuture

Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Age			16.8565	2	0.0002	0.1404	
25-34	-0.8972	0.3377	7.0569	1	0.0079	-0.088	0.4077
35 & above	0.5402	0.4492	1.4458	1	0.2292	0	1.7163
No. of living sons	0.134	0.5599	0.0573	1	0.8108	0	1.1434
Exp. Of child loss	0.6759	0.4707	2.062	1	0.151	0.0097	1.9658
Residence	-0.13	0.3517	0.1367	1	0.7116	0	0.8781
Education			19.1767	3	0.0003	0.1421	
Primary	0.9826	0.6592	2.222	1	0.1361	0.0184	2.6714
Middle	-1.0563	0.4818	4.8057	1	0.0284	-0.066	0.3477
High School +	-1.4453	0.4419	10.6989	1	0.0011	-0.116	0.2357
Religion			4.8231	3	0.1852	0	
Muslim	-0.7618	0.3787	4.0456	1	0.0443	-0.056	0.4668
Christian	-0.0654	0.7111	0.0085	1	0.9267	0	0.9367
Others	-1.7148	1.6082	1.137	1	0.2863	0	0.18
Caste	0.3093	0.4631	0.446	1	0.5042	0	1.3624
Work Status	-0.1871	0.323	0.3355	1	0.5624	0	0.8293
Standard of living			11.4961	2	0.0032	0.1072	
Medium SLI	-0.338	0.4042	0.6996	1	0.4029	0	0.7132
High SLI	-1.4829	0.4907	9.1328	1	0.0025	-0.105	0.227
Exposure to mass media	-0.5799	0.4936	1.3802	1	0.2401	0	0.56
Husband's Approval	-2.0398	0.7481	7.4339	1	0.0064	-0.091	0.1301
Spousal Communication	-1.2054	0.3628	11.0378	1	0.0009	-0.118	0.2996
Desure for child	1.597	0.3332	22.9691	1	0	0.1793	4.938
Constant	3.6383	0.6919	27.6508	1	0		

BIBLIOGRAPHY

Alimoeso, S. 1986. *"Factors affecting the use and non-use of contraception in urban areas of Indonesia."* Washington D. C. : Georgetown University, Department of Demography. 122 p.

Arends-Kuenning, M. 1997. *"How do family planning worker's visits affect women's contraceptive behavior in Bangladesh ?"* Policy Research Division Working Papers, No. 99 New York : New York Population Council

Arnold, Fred, M. K. Choe, and T. K. Roy. 1998 "Son preferences, the family building process and child mortality in India." *Population Studies* 52 : 301-315

Bagle, S and S. Kaur. 1972. *"Adoption of family planning in two industrial settings : A Comparative Study."* Council of Social Development, New Delhi.

Bankole, A., and S. Singh. 1998. "Couple's fertility and contraceptive decision making in developing countries : Hearing the man's voice." *International Family Planning Perspectives*, 1998, 24(1) : 15-24.

Basu, Alka. 1992 ."Cultural Influences on the timing of first birth in India : Large differences that add to little differences." *Population Studies.* 47 : 85-95

Bhat, Mari., and I. S. Rajan. 1990. "Demographic transition in Kerala revisited." *Economic and Political Weekly* 26 : 1957-1980

Bruce, Judith. 1990. "Fundamental elements in quality of care." *Studies in Family Planning* 21 (2) : 61-91.

Casterline, J. B.; A. E. Perez, and A. E. Biddlecom. 1997. "Factors underlying unmet need for family planning in the Philippines." *Studies in the Family Planning* 28(3) 173-191.

Chowdhury, A. I., V. Fauveau, and K. M. Aziz .1992. "Effect of child survival on

    contraceptive use in Bangladesh." *Journal of Biosocial Science* 24(4)

    : 427-32.

Chundi, and A. Srivastava. 2000. "Role of media in rural areas."

Kurukshetra 48(10) : 2-6

Cochrane, S. H., and D. K. Guilkey. 1995. "The effects of fertility intentions and

    access to services on contraceptive use in Tunisia." *Economic*

    Development and Cultural Change 43 (4) : 779-804

Curtis, S. L., and C. F. Westoff. 1996. "Intention to use contraceptives and

    subsequent contraceptive behavior in Morocco." *Studies in Family*

    Planning 27(5) : 239-50

Dreze, Jean. 2000. "*Fertility, Education and Development in India*" Paper

    Presented at the Millennium Conference on Population,

    Development and Environment Nexus, New Delhi, February 14-16

Dwivedi, S. N. 1992. "Contribution of some socio-economic variables towards

    explaining the level of adoption of various family planning devices

    in India during 1987." *Demography India* 21 (2) : 239-45

Esseghairi, K., P. R. A. Hinde, J. W. McDonald, and S. Meddeb. 1991. "*IUD and*

    pill use dynamics in Tunisia and Morocco." In Demographic and

    Health urveys World Conference : Proceedings, Vol. 3 pp. 119-34.

    Washington D. C. Macro International Inc.

Ezeh, A. C. 1993. "The influence of spouses over each other's contraceptive

    attitudes in Ghana." *Studies in Family Planning* 24 (3) : 163-74

Giridhar, P., and S. Paharia. 1995. "Improving the quality of family welfare

services." in *The Family Welfare Programme in India* edited by
H. M. Mathur New Delhi : Vikas Publishing House.

Govindasamy, P., and A. Malhotra. 1996 ."Women's position and family planning in Egypt." *Sources in Family Planning* 27 (6) : 328-40.

Gulati, S. C. 1996. "Contraceptive methods use and choice in Kerala and Uttar Pradesh : Multinomial logit analysis of NFHS data." *Demography India* 25(2) : 205-20.

International Institute for Population Sciences (IIPS). 1995 ." *National Family Health Survey (MCH and Family Planning) :India 1992-93.*" Mumbai : International Institute for Population Sciences.

Irudaya Rajan S., U. S. Mishra and T. K. Vimala. 1996. "Choosing a permanent contraceptive : Does son preference matter ?" *Economic and Political Weekly* 3 (29) : 1, 980-4

Isuigo Abanihe, U. C. 1994. "Reproductive motivation and family size preferences among Nigerian men." *Studies in Family Planning* 25(3) : 149-161

Jain, A. K. 1989. "Fertility reduction and the quality of family planning services." *Studies in Family Planning* 20 (1) : 1-16

Kanitkar, Tara and B. N. Murthy. 1983."Factors associated with contraception in Bihar and Rajasthan : Findings from recent sample surveys." *Dynamics of Population and Family Welfare*. Himalaya Publishing House. Delhi

Khan, M. A. 1996. "Factors affecting use of contraception in Matlab, Bangladesh" *Journal of Biosocial Science* 28(3) : 268-79

Koeing, M. A., M. B. Hussain, and M. Whittaker. 1997. "The Influence of quality

of care upon contraceptive use in rural Bangladesh." *Studies in Family Planning* 28 (4) : 278-89

Koenig, M. A., Gillian H. C. Foo, and Ketan Joshi. 2000. "Quality of care within the Indian Family Welfare Programme : A Review of recent evidence." *Studies in Family Planning*, 31 (1) : 1-18

Krishnan, V. 1993. "Gender of children and contraceptive use." *Journal of Biosocial science* 25(2) : 213-21

Kulkarni, Sumati and M. K. Choe. 1998. "*Wanted and unwanted fertility in selected states of India.*" National Family Health Survey Subject Reports, No. 6 Mumbai : International Institute of Population Sciences; and Honolulu : East-West Center.

Lasee, A. and J. B. McCormick. 1996. "Demographic and socio-economic determinants of contraceptive use in a low income community in Karachi." *Journal of the Pakistan Medical Association* 46 (10) : 228-31.

Lasee, A., and S. Becker .1997. "Husband-wife communication about family planning and contraceptive use in Kenya." *International Family Planning Perspectives* 23 (1) : 15-20, 33

Levine, R. E, H. E. Cross, S. Chhabra, and H. Viswanathan. 1991. "Quality of Health and family services in rural Uttar Pradesh : The client's view. " *Demography India* 21 (2) : 247-65

Lloyd, C. B. 1993. "*Family and gender issues for population policy.*" Population Council, Research Division Working Paper No. 48 p. 41

Magnani, R. J., D. R. Hotchkiss, T. A. Mroz, J. J. Rous, E. L. Eskert, and K. A. McDavid. 1995 ."*Does utilization of MCH services influence subsequent*

contraceptive use ? Evidence from Morocco." Paper presented at the

Annual Meeting of the Population Association of America, San

Francisco, April 4-6.

Mahmood, N. 1997. "Gender differences in fertility desires and son preference

in Pakistan: Implications for Reproductive Control Behavior." In

Comparative perspectives on fertility transition in South Asia. Based

on the seminar organized by the Committee on Fertility and Family

Planning of the International Union for the Scientific Study of

Population (IUSSP) and the Population Council, Islamabad, 7-19

December 1996. Papers. Volume II. Liege, Belgium,

International Union for the Scientific Study of Population (IUSSP)

Mahmood, N., and K. Ringheim. 1993 "Five factors affecting family planning use

in Pakistan : An analysis of husbands and wives." Paper presented

at the International Population Conference, Montreal.

Mandelbaum, D. 1974. "Human Fertility in India". Los Angeles : University

of California Press.

Mason, K. O. and Taj, A. M. 1987 "Differences between women's and men's

reproductive goals." Development Review 13(4) 611-38.

Mishra, Vinod K., R. D. Retherford, P. S. Nair, and Griffith Feeney. 1994.

"Reasons for discontinuing and not intending to use contraception

in India." National Family Health Survey Subject Reports, No.13.

Mumbai : International Institute for Population Sciences; and

Honolulu : East-West Center.

Mishra,Vinod K. 1999. "Why do Muslims have more children in India?" Paper

presented at the Population Association OF America Annual

Meeting, 25-27 March, New York.

Mitchell, R. E. 1972. "Husband-wife relations and family planning practices in

urban Hong Kong." *Journal of Marriage and the Family* 34 (1) :

139-45

Mott, F. L., and S. H. Mott. 1985 " Household fertility discussions in West Africa :

A Comparison of male and female survey results." *Studies in Family*

Planning 16 (2) 88-89.

Mozumdar, A. B., A. H. Sarkar, Barkat-e-Khuda, and D. M. Rahman. 1996.

"Gender composition of surviving children and contraceptive use

in Bangladesh." MCH – FP Extension Project (Rural), Working Paper

No.122. Dhaka: Center for Health and Population Research,

International Center for Diarrhoeal Disease Research.

Olaleye, D. O., and A. Bankole. 1992. *"The impact of mass media family*

planning promotion on family planning in Ghana." Paper presented at

the Annual Meeting of the Population Association of America, Denver,

April 30 - May 2

Rahman, M. 1996. *"Child Mortality and fertility regulation behavior in Bangladesh*

: Implications for family planning programs." ICDDR, B Working Paper

No.52. Dhaka: International Center for Diarrhoeal Disease Research

Rahman, M., J. Akbar, J. F. Phillips and S. Becker. 1992 ."Contraceptive use in

Matlab, Bangladesh : The role of gender preference." *Studies in Family*

Planning 23 (4) : 229-42

Rajaratnam, T. 1995 "Family size desires, sex preference, socio-economic

condition and contraceptive use in rural Karnataka, India."

Demography India. 24 (2) : 275-90

Raju, K. N., and T. N. Bhat 1995 "Sex composition of living children against

socio-economic variables while accepting family planning mehtods."

Demography India 24(1) : 87-99

Ramesh, B. M., S. C. Gulati and R. D. Retherford. 1996. *"Contraceptive use in*

India, 1992-93." National Family Health Survey Subject Reports, No.

2   Mumbai : International Institute of Population Sciences; and

Honolulu : East-West Center.

Ravindran, T. K. 1993 "User's Perspectives on fertility regulation methods."

Economic and Political Weekly 28(46-47) : 2508-12.

Roy, T. K., and R. Verma. 1995 *"Quality of Family Welfare Services in four*

Indian States : Experiences and Perceptions of eligible women." Paper

presented at National Workshop on Operation Research for Improving

Quality of Services, Bangalore, May 24-26

Shariff, A. 1995. "Socio-economic and Demographic Differences between

Hindus and Muslims in India." *Economic and Political Weekly* 30

(46) : 2947-2953

Singh, S. K., and K. N. Yadava. 1997 "Women's Status and Fertility regulation in

rural eastern Uttar Pradesh" In *Population and Development in Uttar*

Pradesh Eds. Kamala Gupta and Arvind Pandey. New Delhi : B. R.

Publishing Council. Pp 217-33

Srivastava, J. N. 1991. "Impact of child mortality on family size desires and family planning practices among white-collar workers." *Journal of Family Welfare* 37(4) : 19-26.

Stash, S. 1997. "Son preference and the dynamics of fertility decision making among wives and their husbands in rural Nepal." In *Comparative perspectives on fertility transition in South Asia*. Based on seminar organised by the Committee on Fertility and Family Planning of the International Union for the Scientific Study of Population (IUSSP) and the Population Council, Islamabad, Rawalpindi / Islamabad, 17-19 December 1996. Papers Volume II. Liege, Belgium, IUSSP.

United Nations Population and Development. 1994. "Programme of Action adopted at the International Conference on Population and Development" Cairo, UN 13 New York.

University of North Carolina, Carolina Population Center. 1997. "*Do integrated MCH / family planning programs increase contraceptive use ? Findings from two North African studies*." Evaluation Project, Chapel Hill, North Carolina

Westoff, C. F., and Bankole. 1997. "*Mass media and reproductive behaviour in Africa*." Demographic and Health Surveys. Analytical Reports, No. 2. Calverton, Maryland : Macro International

Zerai, A., and A. O. Tsui. 1995. "*The relationship between prenatal care and subsequent modern contraceptive use in Bolivia, Botswana, Egypt and Thailand*." Paper presented at the Annual Meeting of Population Association of America, San Fransico, April 6-8