

A Demographic Profile of the People of Jammu and Kashmir

5. Family Planning

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'Family Planning means to have children in a desired number and each child at a desired time' (Matsunaga, 1966). Birth control on the other hand, refers to various methods of contraception that are used to prevent conceptions. In recent few decades, due to untamed fertility rates hampering human goals of development and well being, many nations, particularly the less developed ones, advocate the need for planned parenthood, and this presupposes adoption of some birth control measures. But, whereas many countries are relatively successful in family planning programmes and subsequently also show declining growth rates (China is a striking example), the amount of failures overruns the success in some countries of Asia, Africa, and Latin America. Poffenburger (1968), Freedman and Coombs (1974) have also shown how inconsistency is manifested between the expressed desired family size and contraceptive usage. Potts and Selman (1979) stated that - 'mostly what family planning do is reduce the number of unwanted births; while this is quite worthwhile in itself, fertility will continue to be high in the absence of any motivation for smaller size'.

India, in 1952, became the first country of the world to adopt an official family planning programme, in order to solve the crucial problem of galloping population. All the eight development plans since 1951 indicate that family planning has been given a high priority.

Initially, a 'clinical' approach was adopted, in which people were expected to come to clinics for advice and services. This restricted programme strategy, however, was changed to Family Planning Extension Education approach in the third Five Year Plan (1961-1966), which involved intensive education of people to bring about changes in their knowledge, attitude and behaviour towards family planning; and provision of facilities nearest to the homes of people.

But, before giving a fair trial to the extension approach, the integrated approach was adopted in 1966. With this, the family plan-

ning programme formed an integral part of maternal and child health and nutrition services. That is, this programme was no longer thought in isolation as the birth control only and the programme was envisaged to improve in conjuncture with other development programmes. Under this conjuncture, the family planning programme was replaced by Family Welfare Programme in 1977. This programme seeks to directly, on the one hand, strengthen the health aids of the community, particularly through expansion of maternal and child health care services and on the other promote responsible and planned parenthood, through voluntary and informed choice of family planning methods, and free services in relation to contraception (Ministry of Health and Family Welfare, 1997). The main objective of the programme is not only to reduce the birth rate to the extent necessary to stabilize the population at a level consistent with the requirement of the national economy, but also to achieve replacement level fertility (Net Reproduction rate of 1.0) by 2016 AD.

The programme is promulgated extensively through a network of Sub-centres, Primary Health Centres, Community Health Centres in rural areas, and hospitals, dispensaries in urban areas.

The contraceptive methods provided by the programme are, vasectomy, tubectomy, intrauterine devices (IUD), oral pills, conventional contraceptives - condoms, diaphragms, jelly, foam tablets. Besides, free services are provided for induced abortion or 'medical termination of pregnancy' (MTP) as well.

However, the results of the national family welfare programme is not entirely satisfactory. Although reduction in the birth rates over the past two decades has been attributed to family planning programme, as there have been hardly any role of urbanization, modernization, or of increase in women's education or rise in age at marriage (Premi, 1991); a vast number of studies conducted in India reveal a picture regarding knowledge, attitude, practice reflecting

modest results of family planning programmes. This is because of usage of family planning methods, is also influenced by a large number of demographic, economic, socio-cultural, and physical environmental factors, as well as attitude related to family size and sex composition of children.

The interpretation of 1981 census data also show clear differentials in the effectiveness of the programme in various states. In more developed states, such as Tamil Nadu, lower than average program inputs have produced higher than expected acceptance, whereas in less developed states, such as Jammu and Kashmir, higher than average programme inputs have produced lower than expected acceptance (Srikantan and Saxena 1981; Sherris et al, 1985). Zachariah (1981) reports that in spite of being a socio-economically poor state, Kerala has shown high acceptance of family planning methods.

A recent analysis found that only 41.9 percent couples are effectively protected at the all India level in 1989 (Ministry of Health and Family Welfare, 1990); and only Andhra Pradesh, Gujarat, Haryana, Karnataka, Kerala, Maha-rashtra, Punjab, Tamil Nadu, Himachal Pradesh have equal or higher figures than this Indian average.

The differentials in family planning performance, however, is not limited to India only but are found elsewhere too. The factors which seem responsible and studied most widely especially in developing countries, including India, are educational and economic status of women and husband, place of residence, migration status, preference for a particular sex of offspring especially sons, traditional attitudes, caste/religion, infant mortality especially of males (UN, 1961; Coale, 1965; Krishnamurthy, 1968; Ryder and Westoff, 1971; Wyon and Gordon, 1971; Dandekar, 1967, 1975; Jain, 1975, 1982; Williamson, 1976; Coombs 1977; Pathak and Prasad, 1977; Srikantan, 1977, 1985; Khan et al, 1980; Chaudhury 1982, 1984; Jain and Nag, 1985; Jejeebhoy, 1984; Singh, 1986; Nag, 1991).

It is stressed that any family planning programme cannot succeed under conditions of widespread illiteracy (Bogue, 1969; Bose, 1991; UNICEF, 1993). Contraceptive usage is more acceptable with education and particu-

larly higher education leads to greater use of contraception and consequently to lower fertility (Heer, 1966; Westoff, 1973; Dixon, 1975; Berelson, 1976; Caldwell, 1983; Chaudhury, 1984). In the Pakistan (1976) and Nepal (1976). Fertility Surveys, the well-educated minority and couples residing in urban areas registered higher contraceptive usage than the uneducated and those residing in rural areas, respectively. Religion, however, did not show any pronounced differentials. But in Sri Lanka Fertility Survey (1975), Hindus and Muslims show far less motivation to use contraceptives than Buddhists and Christians. It has been observed in the West that the relationship between contraceptive usage and religion that was prevalent earlier has narrowed down the years (Westoff and Jones, 1977). Besides these factors, male dominance and female subservience; status of females, and their age at marriage are also responsible for the differentials (Driver, 1963; Chaudhury, 1984).

In the present paper, knowledge of family planning methods and attitude towards the same among eligible women ("currently" married respondents aged 15-44 years) in the study population groups, totaling 545 (the break up by population group and place of residence is given in Table) have been studied. In addition, sources of knowledge of methods; ever use of family planning methods by eligible women (by 'currently' married respondents aged 15-44 years or by their husbands), incidence of complications and use-failure following usage of modern contraceptives, sterilization; the suggestions towards effective implementation of family planning programme, have been investigated as well. Further, attempts have also been made : (i) to study the fertility and child (offspring) mortality differentials among users and non-users of family planning methods; and (ii) to explore the possibility of any relationship between the usage of family planning methods and a set of independent determinants.

MATERIAL AND METHODS

The study sample was collected from four districts of Jammu and Kashmir state; and comprised of Buddhist and Muslim (Bodhs, Baltis, Brokpas, Arghuns) from Ladakh region; Kashmiri (Pandits and Muslims) from Srinagar

region; Dogra (Brahmans, Rajputs and Scheduled Castes) and Muslim (Gujjars) from Jammu region. The household were selected after an extensive field visit to the various districts of the state and identifying the villages predominantly inhabited by these population groups. A nuclear family ultimately was taken as the unit of the study.

The data were collected using structured schedules and through genealogies. The collected information was also cross-checked from elderly members of the households. For details see Bhasin and Nag (2002).

RESULTS AND DISCUSSION

Knowledge of Family Planning Methods

Knowledge of family planning methods is defined, as having 'heard of any specific modern and/or conventional method.' But, it is not indicative of a proper understanding of the efficiency and use of a method.

According to the National Family health Survey, 1992-93, the knowledge of family planning is nearly universal in India, with 96 per cent of currently married women having heard of at least one method. In rural and urban areas as well, the same picture is noticed, with 99 and 95 per cent of currently married women (respectively), recognizing at least one method. Of all the methods, knowledge of female steri-

lization is more widespread than any other, followed by male sterilization. In contrast to these, knowledge of three officially sponsored temporary methods like, intra uterine device (IUD), oral pills, and condoms is much less widespread. And, certain traditional methods as, rhythm, abstinence etc., are still less known.

In the present study areas too, the knowledge of family planning methods is found nearly universal, with 94 per cent of eligible women (currently married women in ages 15-44 years) reporting knowledge of at least one method (Table 1). However, the knowledge of any specific method is found slightly less widespread in rural than in urban areas. When considered individually the level of knowledge in Baltis and Brokpas seems slightly less than in Bodhs and Arghuns. This has slightly decreased the percentage of currently married Muslim women (92 per cent), naming at least one specific method, as compared to Buddhists (98 per cent).

In terms of methods, sterilization (female/male) is the most commonly known method (93 per cent), as also in India as a whole. Among other methods, condoms and IUDs seem to be the second and third best known methods (77, 71 per cent, respectively). Whereas such temporary methods, as abstinence/rhythm etc. are comparatively still less known, the knowledge of oral pills-a modern contraceptive, appears rather low. It seems,

Table 1: Percent distribution of women¹ among various population groups of Ladakh region, Jammu and Kashmir, India; by knowledge of specific family planning methods and sources of knowledge

Knowledge of methods/ source of knowledge	Buddhists	Muslim				Ladakh
	Bodhs	Baltis	Brokpas	Arghuns	(Pooled)	(Pooled)
(Total Number of Eligible Women)¹	191	221	33	100	354	545
Knowledge of Specific Methods						
No Method Known	2.1	10.9	8.6	1.0	7.8	5.8
Any Method Known	97.9	89.1	91.4	99.0	92.2	94.2
Permanent Method						
Female/male sterilization	97.9	87.3	88.6	99.0	90.2	93.3
Modern Temporary Method						
Intra-uterine device	88.0	54.3	51.4	81.2	61.6	70.9
Oral pill	48.4	39.8	25.7	43.6	39.5	42.6
Conventional Temporary Method						
Condom	93.2	59.7	60.0	91.1	68.6	77.2
Abstinence/rhythm/withdrawal/any other	74.5	50.2	37.1	82.2	58.0	63.8
Source of Knowledge of Methods						
Mass media	69.3	80.1	65.7	77.2	77.9	74.9
Friend/relatives	4.0	6.4	8.6	6.0	6.4	5.9
BHW/ANM/other paramedics ²	18.2	10.5	22.9	7.9	10.9	13.5
Qualified medical practitioners	7.8	3.2	2.9	8.9	4.8	5.8

1. "Currently" married women (respondents)/wife at ages 15-44 years

2. BHW - Basic health worker; ANM - Auxilliary - nurse - midwife

the majority of currently married women in study areas have not heard about this method. Similar differentials are also seen when the knowledge in individual population groups is considered. Among Arghuns however, the conventional temporary methods, like abstinence etc. are as well known as IUDs. For the most part, these differentials reflect the emphasis of the family planning programme in study area. It may also be mentioned that, the knowledge of any specific method is less known among Baltis and Brokpas than among Bodhs and Arghuns. This can be due to comparatively less exposure to the mass media and outside world. These in turn, may be the function of slightly lesser developmental and socio-cultural transformation of the Kargil district, including orthodoxy, and relatively unsatisfactory educational characteristics of the people (where most of the Baltis and all Brokpas are residing).

Source of Knowledge of Family Planning Methods

The main source of knowledge of family planning methods in study areas seems to be the mass media (chiefly radio). Whereas its role in disseminating information about family planning methods and family welfare programmes seems satisfactory, the role of newspapers, television do not appear so encouraging (most probably because of the fact that these facilities are not widely available, particularly in Kargil than in Leh district. The role of various paramedics like, Basic Health Workers, Auxilliary-Nurse-Midwives, in spreading such knowledge is also somewhat discouraging. More unsatisfactory scenario emerges when the role of qualified medical practitioners is taken into consideration.

The overwhelming majority of women ("currently" married respondents aged 15-44 years) in each study population group mentioned mass media (mainly radio/transistor) as the prime source of knowledge of family planning methods [range-66 per cent (in Brokpas) to 80 per cent (in Baltis)]. While 8 per cent (among Arghuns) to 23 per cent (among Brokpas) had heard of family planning methods from Basic Health Workers (BHWs), Auxillary-Nurse-Mid-wives (ANMs) and other paramedics, only 3 per cent (in Brokpas) to 9 per cent of women (in Arghuns) had obtained

information from qualified medical practitioners. About 5 per cent (in Bodhs) to 9 per cent (in Brokpas) of women have also received information from friends/relatives.

On the whole, the overall sources of knowledge among Muslim women appeared more of less similar to those observed among Buddhist Bodhs. However, somewhat higher percentage of Buddhist than Muslim women mentioned paramedics and medics as the sources of knowledge. The Ladakh (Pooled) group hence, showed that the majority of women (75 per cent) came to know of Family Planning Methods through the mass media (mainly radio). And, while some women (14 per cent) had obtained such information from BHWs, ANMs, and other paramedics; only a few (6 per cent) had gathered the same from qualified medical practitioners or friends, relatives (6 per cent) (Table 1).

In both rural and urban areas, the picture regarding the sources of knowledge of family planning methods was found nearly similar to that elaborated above. However, interestingly, more women in rural areas seem to have obtained family planning knowledge from paramedics than doctors, while in urban areas more women reported doctors as their source, rather than paramedics. These findings broadly indicated which of the medical personnel are more approachable in rural and urban areas (Table 2).

Usage of Family Planning Methods

According to the NFHS, 1992-93, despite the widespread knowledge of family planning methods, their usage is rather limited in India. Only 47 per cent of currently married women in ages 13-49 years have ever used a method. The most commonly used method is female sterilization, with 27 per cent of currently married women aged 13-49 years reporting its ever usage. Its current usage have been reported as 31 per cent. Usage of other modern and traditional methods is comparatively much less. Further, as per expectation, usage of family planning methods is higher in urban than in rural areas of India.

There are large inter-state variations in the usage of contraception. According to the NFHS, 1992-93, among the major states, the current use of any method varies from a low of 20 per cent in Uttar Pradesh to a high of 63 per

cent in Kerala. Uttar Pradesh, Bihar, Rajasthan, Orissa, and Madhya Pradesh which together accounted for 43 per cent of the population of India in 1991, have a prevalence rate lower than the national average. Nagaland, Meghalaya and Arunachal Pradesh also have low prevalence rate. On the other hand, the contraceptive prevalence rate is at least one-third higher than the national average in West Bengal, Himachal Pradesh, Punjab, Delhi, Kerala, Assam, Mizoram and Tripura.

Sterilization, mainly female sterilization, is the mainstay of the family planning programme and it accounts for more than three-fourths of contraceptive use in half of the states. Assam, West Bengal, Punjab and Uttar Pradesh are the

only major states, where the relative contribution of methods other than sterilization is large. The use of temporary methods like, IUDs, pill, injections, condom, is low in all states, except Delhi. The traditional methods of family planning mostly periodic abstinence, are used by only 4 per cent of Indian women. There are also considerable rural-urban differentials in the use of contraception in all the states (NFHS, 1992-93).

Nearly similar picture has also been presented by the Ministry of Health and Family Welfare (1997). In 1994 (provisional estimates), the percentages of eligible couples currently and effectively protected due to all methods in India were 51.3 and 45.4 per cent, re-

Table 2: Percent distribution of women¹ among various population groups of Ladakh region, Jammu and Kashmir, India; by knowledge of specific family planning methods and sources of knowledge and place of residence

Knowledge of methods source of knowledge	Buddhists	Muslim				Ladakh
	Bodhs	Baltis	Brokpas	Arghuns	(Pooled)	(Pooled)
(Total Number of Eligible Women)¹	135	148	(Rural) 33	40	221	356
Knowledge of Specific Methods						
No Method Known	2.9	13.5	8.6	2.4	10.7	7.8
Any Method Known	97.1	86.5	91.4	97.6	89.3	92.2
Permanent Method						
Female/male sterilization	97.1	84.5	88.6	97.6	87.5	91.1
Modern Temporary Method						
Intra-uterine device	89.0	47.3	51.4	87.8	55.4	68.1
Oral pill	54.4	33.1	25.7	36.6	32.6	40.8
Conventional Temporary Method						
Condom	91.9	56.8	60.0	92.7	63.8	74.4
Abstinence/rhythm/withdrawal/any other	79.4	37.2	37.1	75.6	44.2	57.5
Source of Knowledge of Methods						
Mass media	67.6	79.1	65.7	75.6	76.3	73.1
Friend/relatives	5.9	5.4	8.6	2.4	5.4	5.6
BHW/ANM/other paramedics ²	24.2	13.5	22.9	14.6	15.2	18.3
Qualified medical practitioners	2.2	2.0	2.9	7.3	3.1	2.8
(Urban) ³						
(Total Number of Eligible Women)¹	56	73	-	60	133	189
Knowledge of Specific Methods						
No Method Known	-	5.5	-	-	3.0	2.1
Any Method Known	100.0	94.5	-	100.0	97.0	97.9
Permanent Method						
Female/male sterilization	100.0	93.2	-	100.0	94.7	97.4
Modern Temporary Method						
Intra-uterine device	85.7	68.5	-	76.7	72.2	76.2
Oral pill	33.9	53.4	-	48.3	51.1	46.0
Conventional Temporary Method						
Condom	96.4	65.8	-	90.0	76.7	82.5
Abstinence/rhythm/withdrawal/any other	62.5	76.7	-	86.7	81.2	75.7
Source of Knowledge of Methods						
Mass media	73.2	82.2	-	78.3	80.5	78.3
Friend/relatives	1.8	8.2	-	8.4	8.3	6.4
BHW/ANM/other paramedics ²	3.6	4.1	-	3.3	3.8	3.6
Qualified medical practitioners	21.4	5.5	-	10.0	7.5	11.6

1. "Currently" married women (respondents)/wife at ages 15-44 years

2. BHW - Basic health worker; ANM - Auxilliary - nurse - midwife

3. Urban classification not applicable for Brokpas

spectively. Of the eligible couples effectively protected, 30.3 per cent were protected by sterilization, and only 6.8 per cent by IUD, 5.6 per cent by conventional contraceptives, and 2.7 per cent by oral pills.

Incidentally, in most of the South Asian countries as well, sterilization is the most widely used method of contraception (UN, 1989). But, the choice of methods of birth control in the developing countries is generally influenced by the national family planning policies and overall strategy. In China, not only sterilization but IUDs as well, are the most popular methods. It may also be mentioned here that whereas the percentages of currently married women aged 15-44 years, using contraception are rather low in Pakistan (8 per cent, in 1985), Nepal (14 per cent, in 1986), Bangladesh (25 per cent, in 1985), in Sri Lanka (62 per cent, in 1987) and China (74 per cent, in 1985) the opposite is true. These differentials may be partly responsible for the differentials in fertility between these two groups. India seems to occupy an intermediate position between these extremes.

The Ministry of Health and Family Welfare (1997) have also shown inter-state variations in couple protection rates. And, the four southern states, and Gujarat, Maharashtra, Punjab, Himachal Pradesh seem to have higher percentage of effectively protected couples than the All India average. The explanations forwarded for the differentials are: lack of effective official implementation of the programme, poor diffusion and dissemination of Mother and Child Health Care services, particularly in rural areas, poor administration at service levels, low levels of development and existence of various other environmental as well as socio-economic factors.

Among the states of India, the record of the state of Jammu and Kashmir is rather poor, regarding the contraception acceptance. In 1994 (provisional estimate), the percentage of couples effectively protected was only 20.1 per cent, much lower than the percentages in India (45.4 per cent) and Kerala (51.5 per cent). This percentage seems lower than even the earlier percentage effective CPR due to all methods in 1989, for the state (22.6 per cent). In 1989 (Ministry of Health and Family Welfare, 1990), the majority of the districts in the state had a couple protection rate below 20 per cent. Whereas the district of Leh has shown only 23.5 per cent of couples

effectively protected in 1989, in the district of Kargil the percentage has been a mere 12.0 per cent.

This unsatisfactory scenario is generally attributed to the paucity of staff, lack of health education, lack of proper monitoring (due to scattered pattern of settlements and remoteness) inadequate supplies of equipments, contraceptives by the Family Welfare Departments of the two districts as well as scepticism and opposition among people towards the family planning programme and its benefits, and poor infrastructure etc.

In the present study areas as well, despite the widespread knowledge of family planning methods, the usage of the same is rather limited, with only 39 per cent of eligible women (currently married women in ages 15-44 years) reporting ever use of a method. However, the inter-population variation is quite marked. Whereas 60 and 52 per cent of Arghun and Bodh women, respectively, seem to have ever used a method, the proportion of Balti women at 23.1 per cent is much lower. Among Brokpas, only a miniscule proportion of eligible women (6 per cent) has reported ever use of a method. On account of Baltis and Brokpas, the level of ever usage seems much lower in Muslims on the whole (32 per cent) than Buddhists (Bodhs). These differentials may be partly responsible for the differentials in the fertility levels across the study population groups (Table 3).

As elsewhere in India, in the study areas too, female sterilization is the most commonly used family planning methods (adopted by 18 per cent of eligible women). Use of male sterilization seems negligible (3 per cent) in comparison. And, whereas the IUD has been used by 9.4 per cent of eligible women, usage of other temporary methods such as, condoms, pills etc. appear minimal. Individual populations groups also have shown similar pattern of differentials. And as expected, ever use of family planning methods is lower in rural than in urban areas. This may be due to the existence of various urban advantages, like better infrastructure, economic and educational characteristics, particularly of females, as well as greater exposure of the populace to the mass media and outside world.

Further, in rural study areas on the whole, the ever-use of sterilization, albeit largely of females, seems more than the ever use of temporary methods. But, in urban areas, the per-

centages of women reporting ever-use of any temporary method or any permanent method appears same (27 per cent each). Of the temporary methods, IUD appeared to be the most popular in both rural and urban sectors.

It may be mentioned that many others (De Jong, 1972; Bertrand et al, 1981; Nag, 1982) also maintain that urban residence results in fertility decline and increased contraceptive usage. The Fertility Surveys in neighbouring Bangladesh (1975), Sri Lanka (1975) and Pakistan (1976) also revealed increased usage of contraceptives in urban than in rural areas.

The above findings also point out the main thrust of the family planning programme towards permanent methods, particularly female sterilization, rather than on temporary spacing methods, in study areas on the whole. And, even though in urban areas, i.e. in the two towns, temporary methods may be gaining some importance, in the largely rural Ladakh region, family planning is mostly understood as a sterilization programme. Though it meets the needs of many couples, the major disadvantage of this method, is its irreversibility.

Therefore, either it is adopted at higher parities, when the couples have achieved a certain desired family size, with a desired sex composition, or is not adopted at all, particularly in view of high infant and child mortality levels.

In fact, most probably due to this narrow view, and the prevailing high infant and child mortality levels, the single largest proportion of eligible women (38 per cent) [Table 4] have said that they have never used any method as they want more children either in general or because they want a son for various socio-economic reasons when individual reasoning or motives for non-usage of family planning methods of eligible women have been probed. Another 4 per cent also expressed such reason for non-usage as, doubts about survival of all children. Hence, it seems there is a need to change the narrow view of people towards family planning. It may however be mentioned that, even though a large number of eligible women have voiced strong negative reasons, including religious ones for non-usage (which may be somewhat difficult to change quickly), there is still some scope for the family planning pro-

Table 3: Percent distribution of women¹ among various population groups of Ladakh region, Jammu and Kashmir, India; by usage of family planning methods²

Population group	Place of residence	Never used any method ⁴	Ever used any method ⁴	Usage of specific methods					
				Temporary method				Permanent Method	
				Abstinence/ withdrawal/ rhythm/ others	Condom	Intra-uterine device (IUD)	Oral pill	Sterilization	
								Female	Male
Buddhists									
Bodhs	Rural	52.6 (71)	47.4 (64)	3.0	3.7	11.9	-	24.4	4.4
	Urban	37.5 (21)	62.5 (35)	5.4	7.1	28.6	-	21.4	-
	Combined	48.2 (92)	51.8 (99)	3.7	4.7	16.8	-	23.6	3.1
Muslims									
Baltis	Rural	85.8 (127)	14.2 (21)	2.0	4.1	3.4	0.7	3.4	0.7
	Urban	58.9 (43)	41.4 (30)	2.7	4.1	8.2	-	20.6	5.5
	Combined	76.9 (170)	23.1 (51)	2.3	4.1	5.0	0.5	9.1	2.3
Brokpas ³	Rural	93.9 (31)	6.1 (2)	-	-	-	-	6.1	-
	(Combined)								
Arghuns	Rural	42.5 (17)	57.5 (23)	5.0	10.0	2.5	-	32.5	7.5
	Urban	38.3 (23)	61.7 (37)	8.3	6.7	11.7	1.7	26.7	6.7
	Combined	40.0 (40)	60.0 (60)	7.0	8.0	8.0	1.0	29.0	7.0
Muslims (Pooled)	Rural	97.2 (175)	20.8 (46)	2.3	4.5	2.7	0.5	9.1	1.8
	Urban	49.6 (66)	50.4 (67)	5.3	5.3	9.8	0.8	23.3	6.0
	Combined	58.1 (241)	3.19 (113)	3.4	4.8	5.4	0.6	14.4	3.4
Ladakh (Pooled)	Rural	69.1 (246)	30.9 (110)	2.5	4.2	6.2	0.3	14.9	2.8
	Urban	46.0 (87)	54.0 (102)	5.3	5.8	15.3	0.5	22.8	4.2
	Combined	61.1 (333)	39.8 (212)	3.5	4.8	9.4	0.4	17.6	3.3

1. "Currently" married women (respondents) aged 15-44 years

2. Ever use of family planning methods by currently married women aged 15-44 years (or by their husbands).

3. The Brokpa sample has been drawn from rural areas.

4. Figures in brackets indicates number of 'currently' married women aged 15-44 years.

Table 4: Percent¹ distribution of women² among various population groups of Ladakh region in Jammu and Kashmir, India; by reasons (motives) for non-usage of family planning methods

Reasons for non-usage/usage	Buddhists	Muslims				Ladakh
	Bodh	Baltis	Brokpas	Arghuns	(Pooled)	(Pooled)
Reasons for Non-usage of Methods:						
Botheration of practice	2.9	1.1	-	5.8	1.9	2.2
Contempt of elders	2.0	2.2	9.1	5.8	3.7	3.3
No concept/awareness of family planning or any other method	3.9	13.2	9.1	1.9	10.5	8.7
Lack of knowledge of any specific method	2.0	-	-	3.8	0.7	1.1
Want to have a child/desired family size not complete	35.3	20.9	42.4	30.8	25.5	28.2
Desire for son for old age security/ economic advantage/ family lineage	18.6	7.1	9.1	3.8	6.7	10.0
Desire for daughter	3.9	2.2	-	3.8	2.2	2.7
Survival of all children doubtful/ want to replace a dead child	7.8	2.2	3.0	3.8	2.6	4.1
Against religion/ strong dislike for any method	4.9	38.5	15.2	7.7	29.6	22.8
Harmful to health/ fear of sickness, weakness of self/ spouse	5.9	2.2	12.1	1.9	3.4	4.1
Spouse against using a method	5.9	4.9	-	21.2	7.5	7.0
Can afford large family size/ large family good for community	6.9	5.5	-	9.6	5.6	6.0
Total per cent	100.0	100.0	100.0	100.0	100.0	100.0
Reasons for Usage of Methods						
Limitation of family size for economic condition/ economic benefits/ family welfare/ personality needs	95.6	76.9	50.0	91.8	84.4	90.0
Advised on health grounds/ for spacing	4.4	20.5	50.0	8.2	14.4	9.4
Forced to use by Basic Health Workers	-	2.6	-	-	1.1	0.6

1. Total may not add upto 100, due to rounding off

2. "Currently" married respondents at ages 15-44 years

gramme to increase contraceptive use through providing specific information, as among 10 per cent of women non-users, the same is lacking.

Moreover, when all eligible women were asked to provide suggestions for effective implementation of family planning programme, about 18 per cent of eligible women have also suggested the dissemination of knowledge of specific family planning methods through various agencies, including the local influential persons (Table 5).

However, at the same time, it has additionally been pointed out by the single largest proportion of eligible women (23 per cent) that, follow up of all cases of sterilization, IUD insertions, oral pills are important. More so, because even a single case of complication or use-failure following usage discourages many women to adopt contraception. It may be mentioned here that, at the individual population level, whereas single largest percentages of Bodh and Arghun women (29.2 and 39.6 per

cent, respectively) seem to want proper family planning services and post-operative care following sterilization, in Baltis and Brokpas, the single largest group of women (37 and 25 per cent, respectively) have expressed strong dislike for family planning programme and refused to forward any suggestion. The same was noticed to case of the Pooled Muslim data too.

Though the above mentioned suggestions appeared to be the prime ones, a few women mentioned certain other suggestions such as, provision for only other incentives (9.3 per cent); assurance of child survival and provision for better material and child health care (4.2 per cent); need for intervention of local educationists, as well as political/ social/religious leaders and convincing educating methods first before approaching women (2.7 per cent); pretesting of methods (for complications/ use failure) before release/distribution (2.6 per cent); no need for publicity and promotion of only conventional methods like abstinence etc.,

Table 5: Percent¹ distribution of women² among various population groups of Ladakh region in Jammu and Kashmir, India; by suggestions of effective implementation of family planning programme

Suggestions	Buddhists	Muslims				Ladakh
	Bodh	Baltis	Brokpas	Arghuns	(Pooled)	(Pooled)
By providing more knowledge about each method and possible complications following use/by removing fear and misconceptions about various methods/ by giving more publicity about advantages of small family size	20.9	10.8	2.9	19.8	12.6	15.5
By providing proper post-operative care following sterilization; following-up of users of modern temporary methods	29.2	10.9	20.0	39.6	19.9	23.1
By providing monetary incentives to all users including those using modern temporary methods	0.5	0.5	-	1.0	0.6	0.5
By providing other incentives (education, employment benefits; old age support/benefit schemes, provision of subsidies) to all users	12.5	6.3	11.4	8.9	7.6	9.3
By providing both monetary and other incentives to all users, including those using temporary methods	19.8	8.1	14.3	8.9	9.0	12.8
By pretesting methods (for complications and use-failure) before release/ distribution	3.1	1.4	-	5.0	2.2	2.6
By ensuring child survival; by providing better maternal and child health care	1.6	5.9	17.1	1.0	5.6	4.2
By educating and convincing the menfolk/ intervention of local educationists and political, social, religious leaders in the programme	1.6	5.4	-	-	3.4	2.7
No publicity needed and only conventional methods like abstinence should be promoted	2.6	0.9	-	4.0	1.7	2.0
No concept/ awareness of family planning methods	3.9	13.2	9.1	1.9	10.5	8.7
People should not be forced to use any method/ strong dislike for any method and the programme; no proper suggestions made	4.5	36.6	25.2	10.0	27.2	18.6
Total per cent	100.0	100.0	100.0	100.0	100.0	100.0

1. Total may not add upto 100, due to rounding off

2. Suggestions by "currently" married respondents at ages 15-44 years

(2.0 per cent). Incidentally, about 9 per cent of women did not make any suggestions because of non-awareness of methods.

Incidence of Complications, and Use-failures Following Usage

Table 6 deals with the complications faced by women, following the usage of tubectomy/ IUD/oral pills. Although most women did not report any problem, around one-third of women ever-users in the aggregate seemed to have experienced certain complications following the usage of these methods. The proportion of Muslim ever-users and Buddhist Bodhs, who had experienced certain complications, was found nearly same.

The variety of complications listed were: pain in lumbar region; backache; excessive discharge and bleeding; headache nausea; fatigue and weakness; irregular periods; urinary tract

infection; pelvic inflammation; cervical tear and viterous dialation, etc. Further, about 2 to 3 per cent of women ever users in Bodhs, Baltis and Arghuns, have also reported use-failure, i.e., return of unintended pregnancy following usage of such modern methos as, IUDs, oral pills.

Exploratory Family Planning Methods Usage Analysis

As already mentioned, a number of independent determinants may be influencing the dynamics of family planning methods usage in the study population.

Differentials in Usage of Family Planning Methods by Age of Woman

In terms of difference by age of women, experience with having used contraception

Table 6: Percent distribution of women¹ among various population groups of Ladakh region in Jammu and Kashmir, India; by any complication, failure experienced following usage of family planning method

Experience of complication/failure	Buddhists	Muslims				Ladakh
	Bodhs	Baltis	Brokpas	Arghuns	(Pooled)	(Pooled)
Any Complication² Experienced Following Usage of a Method						
Yes	33.7	34.3	50.0	30.2	32.5	33.5
No	66.3	65.7	50.0	69.8	67.5	66.5
Use-failure Experienced Following Usage of a Method³						
Yes	3.0	2.0	-	3.3	2.7	2.8
No	97.0	98.0	100.0	96.7	97.3	97.2

1. "Currently" married respondents at ages 15-44 years who ever used following methods

2. Details of the complications (following sterilization, usage of intra-uterine device, oral pill) presented in the text

3. Refer to return of unintended pregnancy following usage of intra-uterine device/oral pill

risers through age 35-39 years, and decreases thereafter (Table 7). Whereas many young women, who are yet to achieve the desired number of children, may not have used any method, many older eligible women (in ages 40-44 years), who are nearing the end of their reproductive careers too, may not have felt the need for contraception, since they may already be having the desired number. The older women may also be more traditional and are more likely to be unaware about contraception or view the same as inappropriate. The middle aged women, who usually have the desired number, seem to use contraceptive more. In the NFHS, 1992-93 also, similar age pattern of ever use has been noticed.

At the individual population level as well, more or less similar trend has been observed.

However, among Arghuns, the level of use reaches a maximum slightly earlier in ages 30-34 years. Even though Brokpas have shown still more varying pattern, most probably due to the limited number of ever-users amongst them; the pattern of contraceptive use of by age of woman among Muslims as a whole, is same as that among Buddhists (Bodhs).

On the whole, the mean age of women at the time of sterilization is 34.8 years, and that of wives of vasectomy acceptors in 34.1 years. These estimates are higher than the mean ages (in years) of tubectomy acceptors at the national level (29.4) and in Kerala (27.9) and Jammu and Kashmir (32.1) [Ministry of Health and Family Welfare, 1997]. The mean ages of wives of vasectomy acceptors worked out for India as a whole and Kerala (32.2, 32.1, respectively)

Table 7: Differentials in usage of family planning method (Percent distribution of users)¹ among various population groups of Ladakh region in Jammu and Kashmir, India; by (present) age of woman²

Age group (in years)	Buddhists	Muslims				Ladakh
	Bodhs	Baltis	Brokpas	Arghuns	(Pooled)	(Pooled)
15-19	-	-	-	-	-	-
20-24	19.4 (6)	3.0 (1)	-	21.4 (3)	6.9 (4)	11.2 (10)
25-29	31.7 (13)	22.2 (12)	25.0 (1)	42.9 (6)	26.4 (19)	28.3 (32)
30-34	64.4 (29)	28.0 (14)	-	82.1 (23)	43.0 (37)	50.4 (66)
35-39	77.5 (31)	31.5 (17)	16.7 (1)	72.4 (21)	43.8 (39)	54.3 (70)
40-44	64.5 (20)	28.0 (7)	-	63.6 (7)	36.8 (14)	49.3 (34)
(Mean age of woman)²						
At the time of Tubectomy	35.27	35.00	32.00	33.97	34.33	34.79
Vasectomy ³	34.50	30.50	-	35.63	33.92	34.11

1. Figure in each category indicate percentage (number) of women("currently" married respondents at ages 15-44 years) who ever used following methods; [the remainder (not shown in the table) indicates - percentage who never used any method]

2. Age of "currently" married respondent (in years)

3. Mean age of woman (respondent) of vasectomy acceptors

- No users in the category

too, are comparatively low, although the estimate for Jammu and Kashmir seems similar (34.3 years). Hence, it seems that in study areas, the permanent methods are adopted when women are reaching the end of their reproductive careers.

Usage of Family Planning Methods and Children Ever Born and Surviving

The numbers of children ever born and living seem to increase contraceptive ever usage upto 4 children, and decrease at higher number of children (Table 8). These results show a roughly inverted U-shaped pattern, found in other studies (Retherford et al., 1989; NFHS, 1992-93). The low level of use in women with higher numbers of children can be due to the fact that these women are relatively old and are nearing the end of their reproductive age, and so they no longer feel the need of contraception. Low levels of ever use when the number of children ever born and living is less than three, as well as higher mean number of living children among ever users than among never users indicate that couples may be adopting a method, only after a certain desired

number, often more than 2, is achieved. And therefore, it seems contraception as such may not depress fertility to a desired level, and couples may be adopting a method, when they have already done the damage demographically.

Other studies too, have revealed similar results (Pakistan Fertility Survey, 1977; Singh, 1986; Mahadeven, 1989; Akhter and Ahmed, 1991). Individual (present) study population groups have also registered such trends.

Usage of Family Planning Methods and Child Loss/Survival

It has also been noticed that the proportion of child loss is lower among ever-users than among never-users, while the reverse is true, when, the proportion of survivors is taken into consideration (Table 8). Both Buddhists as well as Muslims as a whole have shown similar trends. This may be due to the fact that the couples who have experienced child losses, often want to replace the dead child, and so do not opt for birth control. More so, when the infant and child mortality rates are relatively high, as in the study areas. Many authors have pointed out that infant and child mortality in-

Table 8: Differentials in usage of family planning methods (Percent distribution of users)¹ among various population groups of Ladakh region in Jammu and Kashmir, India; by demographic variables

Demographic variables	Buddhists	Muslims				Ladakh
	Bodhs	Baltis	Brokpas	Arghuns	(Pooled)	(Pooled)
Number of Children Ever Born²						
Less than 3	22.2 (14)	13.3 (8)	-	32.3 (10)	17.5 (18)	19.3 (32)
3-4	64.4 (58)	32.9 (23)	-	73.7 (33)	46.7(56)	54.3(114)
More than 4	71.1 (27)	22.0 (20)	12.5 (2)	70.8 (17)	29.8 (39)	39.1 (66)
Mean Number of Children Ever Born						
To ever users	3.97	4.29	6.00	3.80	4.06	4.02
To never users	2.48	4.02	4.06	2.55	3.78	3.42
Number of Children Surviving²						
Less than 3	22.1 (17)	12.5 (10)	-	35.0 (14)	17.8 (24)	19.3 (41)
3 - 4	69.8 (67)	30.9 (29)	11.1 (1)	82.2(37)	45.3(67)	54.9 (134)
More than 4	83.3 (15)	25.5 (12)	11.1 (1)	60.0 (9)	31.0 (22)	41.6 (37)
Mean Number of Children Surviving						
To ever users	3.58	3.55	5.50	3.28	3.44	3.50
To never users	2.11	2.93	2.68	2.23	2.78	2.59
Child Loss Ratio²						
For ever user	0.098	0.172	0.083	0.137	0.153	0.129
For never user	0.149	0.271	0.340	0.125	0.265	0.243
Child Survival Ratio²						
For ever user	0.902	0.828	0.917	0.963	0.847	0.871
For never user	0.851	0.729	0.660	0.875	0.735	0.757

1. Figures in each category indicate - percentage (number) of women; except in case of means, ratios ("currently" married respondents at ages 15-44 years) who ever used any methods; [the remainder (not shown in the table) indicates - percentage who never used any method]

2. Obtained from the maternity history of "currently" married women (respondents) aged 15-44 years

- No users in the category

fluenced fertility control behaviour particularly in the developing countries (Chaudhury, 1982; Jain, 1982).

Recently, the Human Development Report of the UNDP (UNICEF, 1991) mentioned that improvements in child survival, which increases the predictability of the family building process, trigger the transition from natural to controlled fertility behaviour. The results of a study in India (Jejeebhoy, 1984) has also indicated that it is primarily improvements in child mortality and its effect through intervening factors that account for the transition from natural to controlled fertility.

Usage of Family Planning Methods and Economic Characteristics / Occupation

In the study area, female work force participation seems to have increased contraceptive usage. Individually, Bodhs, Baltis, and Arghuns as well as Muslims on the whole, have shown the same trend. Others have also indicated such results (Shah and Smith, 1981; Chaudhury, 1984; Retherford et al., 1989). Jolly (1986) has concluded that female participation in economic activity promotes the performance of family planning programme in India. However, Singh (1986) have reported that women's work status have very little or no effect on usage of contraception northern parts of India.

Further, the level of ever use in the study

areas seems higher when women are engaged in the service sector or in trading than when they are in the agricultural sector. The UN (1985) also endorses the same trend. The use rate of family planning methods has also been found higher in professional, managerial, technical class and clerks than in manual labour class in the city Calcutta, India (Pakrasi and Halder, 1980). However certain variations have been observed, when the study population groups are considered individually which most probably are due to the limited number of ever users of contraceptives under most of the occupational categories.

The occupation of husband in trade/commerce or in the service sector too, tend to show higher ever use of contraception when compared with their occupation in the agricultural sector or unskilled manual work, noticed above in case of women (Table 9). Similar trend has also been noticed when individual population groups are taken into consideration. However, among Buddhist Bodhs, the level of ever use in case of husbands pursuing cultivation/unskilled work seems not greatly different from those pursuing various services.

Usage of Family Planning Methods and (Household) Income

The ever use of contraception seems to increase with the increase in (household) income in the study population. Other studies have also

Table 9: Differentials in usage of family planning methods (Percent distribution of users)¹ among various population groups of Ladakh region in Jammu and Kashmir, India; by economic characteristics/occupation of woman²/husband

<i>Economic characteristics/ occupation</i>	<i>Buddhists</i>	<i>Muslims</i>				<i>Ladakh</i>
	<i>Bodhs</i>	<i>Baltis</i>	<i>Brokpas</i>	<i>Arghuns</i>	<i>(Pooled)</i>	<i>(Pooled)</i>
Women						
Economically inactive ³	51.0 (79)	22.7 (45)	6.7 (2)	57.8 (52)	31.1 (99)	37.6 (178)
Economically active	55.6 (20)	26.1 (6)	-	80.0 (8)	38.9 (14)	47.2 (34)
Cultivation/agricultural, unskilled labour	76.9 (10)	-	-	100.0 (1)	8.3 (1)	44.0 (11)
Trade/commerce	54.5 (6)	50.0 (1)	-	100.0 (1)	50.0 (2)	53.3 (8)
Service	33.3 (4)	45.5 (5)	-	75.0 (6)	55.0 (11)	46.9 (15)
Husband						
Economically inactive ³	-	-	-	-	-	-
Economically active	51.8 (99)	23.1 (51)	6.1 (2)	60.0 (60)	31.9 (113)	38.9 (212)
Cultivation/agricultural, unskilled labour	50.0 (18)	10.4 (7)	14.3 (1)	50.0 (3)	13.9 (11)	25.0 (29)
Trade/commerce	55.0 (11)	24.0 (12)	25.0 (1)	70.6 (24)	42.0 (37)	45.7 (48)
Service	50.7 (70)	30.8 (32)	-	55.0 (33)	34.9 (65)	41.7 (135)

1. Figure in each category indicate percentage (number) of women("currently" married respondents aged 15-44 years) who have ever used any method; [the remainder (not shown in the table) indicates - percentage who never used any method]

2. Refers to main occupation of "currently" married women (respondent)/husband

3. Household duties/employed/retired

- No users in the category

found positive association between adoption of contraception and economics status (Pakrasi and Haldar, 1980; Abdellah, 1981; Mahadevan, 1989). However, Retherford et al. (1989) in a study in Sri Lanka, have found that couple wealth tends to reduce use. In the individual (present) study populations also, the level of ever use seems high, when the (household) income level is relatively high (although the increase is not exactly monotonous from the lowest to highest level) [Table 10].

Usage of Family Planning Methods and (Household) Ownership of Land

The impact of (household) ownership of land on ever use of family planning methods is found varying slightly irregularly, although the level of ever use seems the highest, when the size of landholding is 50 kanals and above and the lowest when there is no land. But individually the study population groups have revealed rather varying patterns, which can be due to the limited number of ever users in many categories, and/or possible involvement of simultaneous effects of several other factors on contraceptive usage (Table 10).

Usage of Family Planning Methods and Educational Characteristics

It is well acknowledged that any family planning programme cannot succeed under conditions of widespread illiteracy since the

Programme and contraceptive usage are more acceptable with education (Bogue, 1969; Caldwell et al., 1983; Bose, 1991, UNICEF, 1993).

Many other studies have shown that use of contraception vary (positively) with education of women (Heer, 1966; Dixon, 1975, Bangladesh Fertility Survey, 1975; Pakistan Fertility Survey, 1976; Singh, 1986; Mahadevan, 1989; Retherford et al., 1989; NFHS, 1992-93). Srikantan et al. (1981) found that in most Indian states, there is a positive association between the levels of female literacy and contraceptive usage. And, Jolly (1986) concluded that female literacy tends to promote the performance of family planning programme in India.

In the present study population as well, the ever use of contraception is lower when women are illiterate than when they are literate. This is because, education enables a person to acquire better knowledge, and also knowledge of more effective methods. However, even though the difference in ever use of contraception is quite visible between illiterate and women having primary education, further increase in levels of ever use with increase in education shows slightly varying pattern (Table 11). This may be due to the small number of ever users in various categories of educational attainments in the study population groups, and/or involvement of simultaneous effects of other factors on contraceptive usage. Interestingly, among Arghuns, the level of ever use of contraceptive

Table 10: Differentials in usage of family planning methods (Percent distribution of users)¹ among various population groups of Ladakh region in Jammu and Kashmir, India; by economic background

<i>Economic background</i>	<i>Buddhists</i>	<i>Muslims</i>				<i>Ladakh</i>
	<i>Bodhs</i>	<i>Baltis</i>	<i>Brokpas</i>	<i>Arghuns</i>	<i>(Pooled)</i>	<i>(Pooled)</i>
Household Income (in Rupees)						
<i>Total Income²</i>						
10000 and less	37.5 (3)	28.6 (2)	-	-	28.6 (2)	33.3 (5)
10001 - 30000	49.3 (67)	17.3 (24)	8.0 (2)	56.9 (29)	25.6 (55)	34.8 (122)
30001 - 50000	64.7 (22)	23.8 (10)	-	54.2 (13)	32.4 (23)	42.9 (45)
50001 and above	53.8 (7)	45.5 (15)	-	72.0 (18)	54.1 (33)	54.1 (40)
Ownership of Land³						
No land	46.2 (12)	20.0 (4)	33.3 (1)	30.0 (3)	24.2 (8)	33.9 (20)
Less than 10	42.9 (15)	28.2 (11)	16.7 (1)	75.0 (18)	43.5 (30)	43.3 (45)
10 - 29	52.3 (45)	21.3 (26)	-	55.8 (29)	28.6 (55)	36.0 (100)
30 - 49	58.3 (21)	25.0 (8)	-	75.0 (6)	31.8 (14)	43.8 (35)
50 and above	75.0 (6)	25.0 (2)	-	50.0 (4)	37.5 (6)	50.0 (12)

1. Figure in each category indicate percentage (number) of women ("currently" married respondents aged 15-44 years) who have ever used any method; [the remainder (not shown in the table) indicates - percentage who never used any method]

2. Household income per annum

3. Household ownership of cultivable land in kanals (8 kanals = approximately 1 acre)

- No users in the category.

Table 11: Differentials in usage of family planning methods (Percent distribution of users)¹ among various population groups of Ladakh region in Jammu and Kashmir, India; by educational characteristics of woman²/husband

<i>Educational characteristics</i>	<i>Buddhists</i>	<i>Muslims</i>				<i>Ladakh</i>
	<i>Bodhs</i>	<i>Baltis</i>	<i>Brokpas</i>	<i>Arghuns</i>	<i>(Pooled)</i>	<i>(Pooled)</i>
Women						
<i>Illiterate</i>	53.1 (78)	22.1 (43)	7.4 (2)	59.6 (28)	27.1 (73)	36.3 (151)
<i>Literate</i>	47.7 (21)	30.8 (8)	-	60.4 (32)	47.1 (40)	47.3 (61)
Primary	66.7 (8)	-	-	71.4 (10)	41.7 (10)	50.0 (18)
Middle	23.1 (3)	40.0 (4)	-	66.7 (10)	40.0 (14)	41.5 (17)
Matriculation/secondary & above	52.6 (10)	50.0 (4)	-	50.0 (12)	48.5 (16)	50.0 (26)
Husband						
<i>Illiterate</i>	48.8 (42)	16.0 (16)	14.3 (2)	61.9 (13)	23.0 (31)	33.0 (73)
<i>Literate</i>	54.8 (57)	28.9 (35)	-	59.5 (47)	37.4 (82)	43.0 (139)
Primary	77.8 (7)	23.5 (4)	-	66.7 (2)	28.6 (6)	43.3 (13)
Middle	48.6 (18)	26.1 (6)	-	70.0 (14)	39.2 (20)	43.2 (38)
Matriculation/secondary & above	52.0 (26)	31.6 (25)	-	52.2 (24)	36.6 (49)	40.8 (75)
Graduation and above	75.0 (6)	-	-	70.0 (7)	53.8 (7)	61.9 (13)

1. Figure in each category indicate percentage (number) of women("currently" married respondents aged 15-44 years) who have ever used any method; [the remainder (not shown in the table) indicates - percentage who never used any method]

2. "Currently" married respondent aged 15 - 44 years
 - No users in the category

is not much different between the literate and illiterate women.

Many studies have highlighted the importance of husband's education also on contraceptive usage (Jain, 1975; Pathak and Prasad, 1977; Singh, 1986; Mahadevan, 1989). In the present study population as a whole, too, the level of ever use of contraception is higher when husbands are literate than when they are illiterate. Even though among Bodhs as well as Baltis, such trend is seen, among Arghuns, the ever use of contraception does not seem to vary with education of husbands, as also noticed in case of Arghun women, probably due to the involvement of effects of other factors on usage and relatively greater acceptance across all strata amongst them (Table 11). However, Muslims on the whole, have shown the trend seen in Buddhists (Bodhs). Further, when the levels of educational attainments of husband are considered, slightly varying pattern is noticed, although the lowest and highest level of ever usage of contraception is seen in case of illiterate husbands and in case of those having graduation and above levels of education, respectively.

Usage of Family Planning Methods and Age at Marriage of Woman

At increase in the age at marriage of woman in the study population as a whole, seems to have increased the level of ever use of contra-

ception. When age at marriage is high, women get more opportunities to be educated, and/or to learn the adverse consequences of a large family through informal education, which may have led to adoption of some form of contraception. Other studies have also shown positive relationship between age at marriage and use of contraception (Chaudhury, 1984; Mahadevan, 1989). However, a study in Sri Lanka (Retherford et al. 1989) have shown a negative effect (albeit small) of age at first marriage on contraceptive usage. Similar trend has been noticed among Arghuns in the present study, when considered individually. But, among Muslims on the whole, an increase in ever use with increase in age at marriage is seen as noticed in the aggregate. Among Buddhists (Bodhs) on the other hand, the pattern of ever use seems to be varying slightly (Table 12).

Usage of Family Planning Methods and Religion

As already mentioned, religion in many parts of the world have certain bearing on fertility as well as contraceptive behaviour. Apart from the Catholics, the other major religious group, which strongly opposes deliberate birth control is Muslims. The Sri Lanka Fertility Survey (1975), Mahadevan (1989) have shown relatively low contraceptive usage in Muslims than in other religious groups. The NFHS,

Table 12: Differentials in usage of family planning methods (Percent distribution of users)¹ among various population groups of Ladakh region in Jammu and Kashmir, India; by age at marriage of woman²

Age at marriage	Buddhists	Muslims				Ladakh
	Bodhs	Baltis	Brokpas	Arghuns	(Pooled)	(Pooled)
10 - 14 years	22.2 (2)	26.7 (4)	-	66.7 (4)	29.6 (8)	27.9 (10)
15 - 19 years	57.3 (59)	20.5 (32)	9.5 (2)	60.6 (43)	31.0 (77)	38.7 (136)
20 - 29 years	48.1 (38)	30.0 (15)	-	56.5 (13)	35.4 (28)	41.8 (66)

1. Figures in each category indicate percentage (number) of women("currently" married respondents aged 15-44 years) who have ever used any method; [the remainder (not shown in the table) indicates - percentage who never used any method]

2. "Currently" married respondents aged 15-44 years

- No users in the category.

1992-93 has also shown that the contraceptive prevalence rate is the lowest among Muslims (28 per cent), and the highest among Jains (63 per cent). Contraceptive prevalence is also higher among Sikhs (58 per cent), Buddhists (50 per cent) and Christians (48 per cent) than among Hindus (42 per cent). However according to this survey, as well as Mahadevan (1989), there may be various other factors including educational characteristics, which may be responsible for the limited contraceptive usage among Muslims as compared to others.

In the present study too the ever use of contraception has been observed lower in Muslims than in Buddhists, but mainly on account of low level of usage in Muslim Baltis and Brokpas. Among Arghuns - a socio-economically, educationally advanced Muslim community, the picture is rather different, with the majority of eligible women (60 per cent) reporting (ever) usage of contraception. Hence, in the study areas as well, several other factors may be involved in the religion - contraceptive usage interplay. It may additionally be mentioned here that the single largest percentage of Muslim never-users (30 per cent) have mentioned religious reasoning for not adopting contraception, which requires proper intervention. However, individually, more Baltis and Brokpas have voiced such reasons than

Arghuns.

Usage of Family Planning Methods and Family Structure

With regard to the interaction between family structure and ever use of contraception, in the present study population as a whole, nuclear family structure seems to increase the usage, while the reverse is true in case of joint family set-ups. Other studies have also reported that awareness, usage of contraceptives and motivation for the same are more in nuclear than in joint family setups (Bebarta, 1967; Singh, 1986). Moreover, in joint family settings, effective communication seldom takes place between husband and wife, thereby preventing effective practice of family planning (Poffenburger, 1969). Individually, both Bodhs and Arghuns, have indicated the pattern mentioned above. But, among Baltis, family structure may not have much impact on contraceptive usage. The Muslims on the whole however, have shown higher ever use of contraception, in nuclear family set-ups than in joint families (Table 13).

Usage of Family Planning Methods and (offspring) Gender Preference

It has also been noticed in the study popula-

Table 13: Differentials in usage of family planning methods (Percent distribution of users)¹ among various population groups of Ladakh region in Jammu and Kashmir, India; by family structure

Family structure	Buddhists	Muslims				Ladakh
	Bodhs	Baltis	Brokpas	Arghuns	(Pooled)	(Pooled)
Joint family	48.9 (43)	22.8 (23)	-	48.8 (21)	28.8 (44)	36.1 (87)
Nuclear family	54.4 (56)	23.3 (28)	8.3 (2)	68.4 (39)	34.3 (69)	41.1 (125)

1. Figure in each category indicate percentage (number) of women("currently" married respondents aged 15-44 years) who have ever used any method; [the remainder (not shown in the table) indicates - percentage who never used any method]

Table 14: Differentials in usage of family planning methods (Percent distribution of users)¹ among various population groups of Ladakh region in Jammu and Kashmir, India; by attitude related to sex composition of children

<i>Gender preference² (Offspring)</i>	<i>Buddhists</i>	<i>Muslims</i>				<i>Ladakh</i>
	<i>Bodhs</i>	<i>Baltis</i>	<i>Brokpas</i>	<i>Arghuns</i>	<i>(Pooled)</i>	<i>(Pooled)</i>
Preference for son	42.3 (22)	18.9 (10)	9.1 (1)	65.0 (13)	28.6 (24)	33.8 (46)
No (offspring) gender preference	55.4 (77)	24.4 (41)	4.6 (1)	58.8 (47)	33.0 (89)	40.6 (166)

1. Figures in each category indicate percentage (number) of women ("currently" married respondents aged 15-44 years) who have ever used any method; [the remainder (not shown in the table) indicates - percentage who never used any method]

2. Preference of respondents

tion that when there is an expressed preference for son, the ever - use of contraception is lower, than when there is no offspring gender preference. Individually, all the study population groups, except Brokpas, have shown the same trend. The Muslims on the whole too, have registered similar results (Table 14). Many studies (Mahapatra and Murthy, 1966; Heer and Wu, 1975; Chaudhury, 1978, 1982) have shown that son preference is negatively associated with contraceptive usage. The Bangladesh (1975), Nepal (1976) Pakistan (1976) Fertility Surveys too, have revealed that strong son preference acts as a factor behind fertility motivation and regulation. More recently, Mahadevan (1989), Nag (1991) and NFHS (1992-93) have also indicated existence of son preference in the Indian sub-continent and its effect on contraceptive usage. According to these studies, usage of contraceptives increases as the number of living sons increases.

Usage of Family Planning Methods and Facilities Available

In the present study, an attempt has also been made to study the impact of infrastructural facilities available on ever usage of contraception. And, it has been noticed that, in the study population as a whole, the ever use of family planning methods, increases with the betterment of educational, communication, and medical facilities available near residence. At the individual population level as well, similar trend is seen, barring few exceptions, which can be due to the limited number of ever users in certain categories. Better infrastructure leads to improvements in education, employment opportunities, and greater exposure to the outside world, which usually brings about changes in attitude towards family size and sex composition of children, and also contraception be-

haviour (Table 15). However, it may be mentioned that rather high levels of ever use, in the presence of all four types of schools, as well as hospitals/family planning centres etc., may also be indicative of the effects of the urban advantage, since these facilities are available only in urban areas.

Usage of Family Planning Methods and Type of Medical Facilities Availed

The type of medical facilities availed also seems to have certain bearing on ever use of family planning methods in the study population. As per expectation, utilization of only modern medical care seems to increase ever use than when both folk and modern medical care are utilized. Utilization of modern medical care usually reflects a change in traditional attitudes as well as access to family planning services which may lead to adoption of some effective family planning methods. Besides, utilization of maternal and child health care often results in better chances of child survival, which may change the family size ideals. As it generally known that those reporting utilization of both types of medical care, usually opt for modern medicines etc., when all folk treatments fail (Table 15).

Usage of Family Planning Methods and Housing Conditions and Attributes

The housing conditions and attributes, which are also broadly indicative of level of living or socio-economic status of the household, have also indicated a positive effect on usage of family planning methods (Table 15). That is ever use is seen increasing with the betterment of housing conditions. This is true for all the study population groups. Singh (1986) has also reported positive association of between level of

Table 15: Differentials in usage of family planning method (Percent distribution of users)¹ among various population groups of Ladakh region in Jammu and Kashmir, India; by some background characteristics of woman²

Background characteristics	Buddhists	Muslims				Ladakh
	Bodhs	Baltis	Brokpas	Arghuns	(Pooled)	(Pooled)
Type of Educational Facilities Available³						
Primary/middle school	46.8 (37)	12.5 (7)	-	75.0 (6)	20.3 (13)	35.0 (50)
Primary/middle/high school	48.2 (27)	15.2 (14)	9.5 (2)	53.1 (17)	22.8 (33)	29.9 (60)
Primary/middle/higher sec. school	62.5 (35)	41.1 (30)	-	61.7 (17)	50.4 (67)	54.0 (102)
Type of Communication Facilities Available						
<i>Communication Facilities Index³</i>						
Poor	28.2 (11)	7.5 (4)	-	66.7 (2)	10.7 (6)	17.9 (17)
Good	57.9 (88)	28.0 (47)	6.1 (2)	59.8 (58)	35.9 (107)	43.3 (195)
Type of Medical Facilities Available³						
Not available	-	10.0 (3)	-	-	10.0 (3)	10.0 (3)
Medical sub-centrs/Aid centre/Dispensary	42.7 (50)	17.1 (12)	-	56.4 (22)	27.4 (34)	34.0 (84)
Primary health centre	77.8 (14)	12.5 (6)	11.1 (2)	100.0 (1)	13.4 (9)	27.1 (23)
Hospital/allopathic dispensary/Tuberculosis clinic/Family planning centre	62.5 (35)	41.1 (30)	-	61.7 (37)	50.4 (67)	54.0 (102)
Type of Medical Facilities Aailed						
Folk and modern ⁴	49.2 (61)	18.8 (24)	7.4 (2)	59.5 (22)	25.0 (48)	34.5 (109)
Modern ⁴	56.7 (38)	29.0 (27)	-	60.3 (38)	40.1 (65)	45.0 (103)
Hosing Attributes and Condition						
<i>Housing Condition Index³</i>						
Poor	35.6 (16)	10.0 (5)	-	28.6 (2)	10.9 (7)	21.1 (23)
Fair	45.8 (44)	22.6 (26)	8.7 (2)	55.0 (22)	28.1 (50)	34.3 (94)
Good	79.6 (39)	35.7 (20)	-	67.9 (36)	50.0 (56)	59.0 (95)

- Figures in each category indicate - Percentage (number) of women("currently" married respondents aged 15-44 years) who have ever used any method; [the remainder (not shown in the table) indicates - percentage who never used any method]
- "Currently" married respondents aged 15-44 years
- Facilities not available/ available with in 5 km of house (residence)
- From both government and private sources
- No users in the category

living and use of contraception in rural communities of Punjab and Haryana.

Usage of Family Planning Methods and Source of Knowledge of Methods

The ever use of family planning methods also seems to be high when the source of knowl-

edge is qualified medical practitioners. And, whereas the role of various paramedics like, Basic Health Workers, Auxilliary-Nurse-Midwives etc. are also important in motivating couples towards contraception, the role of mass media appears not so encouraging, when it comes to the actual usage (Table 16). Even though it has been noticed earlier that the main

Table 16: Differentials in usage of family planning methods (Percent distribution of users)¹ among various population groups of Ladakh region in Jammu and Kashmir, India; by source of knowledge of any method

Source of knowledge of method	Buddhists	Muslims				Ladakh
	Bodhs	Baltis	Brokpas	Arghuns	(Pooled)	(Pooled)
Mass media	45.5 (60)	19.8 (35)	-	55.8 (43)	28.3 (78)	33.8 (138)
Friends/relatives	66.7 (6)	7.1 (1)	-	83.3 (5)	26.1 (6)	37.5 (12)
BHW/ANM/other paramedics ²	54.3 (19)	39.1 (9)	14.3 (1)	62.5 (5)	39.5 (15)	46.6 (34)
Qualified medical practitioners	93.3 (14)	85.7 (6)	100.0 (1)	77.8 (7)	82.4 (14)	87.5 (28)

- Figure in each category indicate - Percentage (number) of women("currently" married respondents aged 15-44 years) who have ever used any method; [the remainder (not shown in the table) indicates - percentage who never used any method]
- BHW - Basic health worker, ANM - Auxilliary - nurse - midwife
- No users in the category

source knowledge of family planning methods is various mass media and the role of medical personnel (qualified medical practitioners, and various paramedics) in disseminating the family planning information is somewhat discouraging; the role of the latter group in motivating couples (albeit few) to adopt contraception may have been more successful. Hence, it seems rather than using the mass media vigorously for campaigning, if the medical personnel reach out to more people, the family planning programme may get a boost in the study area. At the individual population level, more or less similar results as mentioned above have been observed, barring few exceptions, which may be due to small number of ever users in certain categories.

The above discussion broadly points out that a host of demographic, economic, socio-cultural, attitudinal factors as well as infrastructural facilities available in the study area may be influencing the usage of family planning methods in the present study population. Hence, it appears that promotion of Family Welfare Programme alone may not lead to widespread fertility limiting behaviour, but overall socio-economic development may be equally important. In other words, for a successful impact, combination of both programme promotion and socio-economic development is necessary, as has been pointed out by Birdsall (1977), Ness et al. (1984), Jolly (1986), National Family Health Survey (1992-93).

KEY WORDS Fertility. Family Planning Methods. Caste and Tribal Groups. Jammu and Kashmir.

ABSTRACT In the present study an attempt has been made to appraise women's knowledge of contraceptive methods and also the usage of family planning methods among caste and tribal groups of Jammu and Kashmir. Knowledge of contraceptive methods is widespread among all population groups, particularly the permanent methods. However, usage of contraceptives is not that widespread. Among all the methods, the most commonly used are the permanent methods especially tubectomy. This is followed by IUDs.

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