ISSN 2250-3153

Male involvement and utilization of maternal health services in India

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Abstract- The present paper examines the association between the men's knowledge regarding the maternal health service utilization and maternal health in India using data from National Family Health Survey 2005-06. The indicator of maternal health used in the analysis is safe delivery. Binary and multinomial logistic regression are used established the said association. Males involvement coded into two ways and two categories viz father present at the time of ANC visit or not, and whether at any time during the pregnancy any health provider or health worker told them about the various sign of pregnancy complications or not. The other independent variables used in this analysis are age, children ever born, work status of the women, education of the women, religion and caste. The findings clearly suggest that male involvement and their knowledge about maternal health significantly associated with the maternal health. Those women's husband has knowledge regarding maternal health and those are present at the time of ANC visit more likely to utilize safe delivery service.

Index Terms- Maternal health, Male involvement, ANC, Institutional delivery

I. INTRODUCTION

During the last few decades India has been going through an intensive transformation process related to changes in demographics and in the use of human capital. Among the most significant transformations, we find changes in family structure and fertility, a transition from a relatively young to a relatively older population, an increase in the labor force participation of women, and growth in levels of educational attainment.

There have been important changes in family size related to demographic transition. The total fertility rate fell from 2.9 in 1998-99 to, to 2.7 in 2005-06(NFHS-3). The evolution of family structure has also undergone important although somewhat less dramatic changes. Compared with other South Asian, a large percentage of Indian households are composed of nuclear families. The proportion of female-headed households has also increased.

It is additionally worth mentioning that the majority of these demographic and socioeconomic changes started from the mid-1990s as a consequence of various policies implemented by the government, as well as some institutional changes. While it is true that the decline in India's fertility was already following a secular trend, public policy was additionally trying to accelerate this momentum.

In 1996, safe motherhood and child health services were incorporated into the Reproductive and Child Health Programme (RCH). To improve the availability of and access to quality health care, especially for those residing in rural areas, the poor, women, and children, the government recently launched the National Rural Health Mission for the 2005-2012 periods.

In spite of the government's effort to reach out to pregnant women in all parts of the country to provide all components of maternal health care free or with nominal charges, utilization of maternal health care remains low in the country. For example, institutional delivery according to NFHS-2 was as low as 34 percent (IIPS, 2000). However, one of the important policy goals of the government is to achieve 80 percent institutional deliveries by the year 2010 (National Population Policy 2000). Though the government is committed to provide extensive free maternal health care under its top priority national health program, its low utilization is intriguing.

Utilization of maternal health care depends not only on the availability of services but also on different other factors such as distance of health care facility; perception of women and husband and their families regarding the need for care; social restrictions on freedom to movement; the opportunity cost of accessing health care; and the interaction between the client and the provider of formal health care system (World Population Monitoring, 1998; IIPS, 2000). Also as a woman's social status and her health are intrinsically related, her low status often is the cause of poor access to essential healthcare (Report on Safe Motherhood Conference, 1987; Royston et al, 1989).

II. LITERATURE REVIEW

Women's house hold position is one of the important determinants of their health care utilization. It depends on many things, mainly the closeness of the husband-wife bond and the degree of communication between spouses have also been suggested to be an important dimension of women's household position (Jejeebhoy S 1995), because conjugal intimacy is generally discouraged in South Asia and the husband represents a direct avenue to household resources.

It is widely asserted that increased gender equality is a prerequisite for achieving improvements in maternal health. The Programme of Action adopted at the 1994 International Conference on Population and Development claimed that "improving the status of women also enhances their decision-making capacity at all levels in all spheres of life, especially in the area of sexuality and reproduction"(ICPD).

Also, women's paid employment could alter the perception of women's value and motivate investment in the girl child's education and health (United Nations, 1999).

The investment of power on a woman becomes evident through her participation in household decision making, financial autonomy and freedom of movement (Kishor, 2004). Lack of decision making power by a woman could result into lesser timely health seeking behaviour and leads to greater adverse health consequences (Sundari, 2004).

The input of empowerment also has to enhance her intrinsically by changing her attitude or ideology into egalitarian ideas, otherwise the power or autonomy she has gained, could not channel her to make welfare and developmental decisions. A fundamental shift in perceptions, or "inner transformation," is essential to the formulation of developmental choices (Malhotra A, 2002). Non-egalitarian gender relations deny woman an egalitarian decision making role during health care need, and other family matters (Jeejebhoy, 1998). Positive change in the attitude could alter the current submissive image of an Indian woman as only a reproductive tool, homemaker, caregiver and subordinate.

III. Some important aspect of maternal health care

Maternal Health Care Services

Primary maternal health care is provided by the government through health centers and sub health-centers. At the secondary level, there are district hospitals or community health centers and at the tertiary level, there are, regional and central hospitals. The government currently considers the numbers of facilities offering specialized maternal, newborn and child health care to be adequate, but recognizes a need to strengthen capacity, especially in terms of quality of care and management. It is government policy to provide antenatal care free of charge, except for medicine.

Essential maternal care

All women need of additional care during her pregnancy. All women must be given Tetanus Toxoid immunization and the full course of Iron Folic acid (IFA) tablets. All women need to be advised on the preparations they must take for delivery. It is important that all pregnant women are registered early during pregnancy. The urgency for doing so must be emphasized by the premedical staff. The number of women registered sub-center wise should be monitored monthly. The annual estimated number of pregnant women must be worked out sub-center wise and the total number in the primary health center (PHC) area can be added up. The estimated number of pregnancies and the registered should be monitored to determine how many women are not receiving the essential services.

The purpose of antenatal checkup is to monitor the progress of pregnancy and identify and treat medical complications early. Women who have no antenatal examination are at risk as they may have and underlying complications or high risk factor. Some women can even develop complication without warning. It is essential therefore that all pregnant women receive antenatal care and advise on where they deliver.

Need of the study

Decision making and the utilization of health care facility are inseparable part of our analysis. Husband and wife as a couple bear all the responsibility of their present and future life. They have needed better understanding to successfully run their family. To live a peaceful life both have needed a good health. As our society's concern husband are always responsible to take all the decision regarding any expenses. To ensure good health husband and wife needs better cooperation. At the time of pregnancy demand for cooperation is more to ensure the safety of mother and child. So we have need to check the husbands presence at the time of wives ANC visit has any influence on better health care utilization as full ANC and a increase or decrease of institutional delivery.

IV. Objective of the study

Our specific objective of this study is-

To examine husbands attitude and involvement in maternal health care utilization.

Data and Methods

This study analyzes data from the2005-06 National Family Health Survey (NFHS), which employed a nationally representative sample of 109041households, 124385 women age 15-49, and 74369 men age 15-54. The present analysis is restricted to the 42183 match couples, those are currently married. The Reproductive and Child Health Programme in India envisages the involvement of men in women's reproductive health. Health workers are supposed to provide expectant fathers with information on several aspects of maternal and child care during their contacts with expectant fathers. In NFHS-3, information was collected through the Men's Questionnaire about several aspects of their involvement in antenatal care, including whether the mother of their youngest child had any antenatal check-ups when she was pregnant, whether they were present at any of these antenatal check-ups, and the reason the mother did not have any antenatal checkups if she did not have any. Men were also asked whether at any time during the pregnancy any health provider or health worker told them about the various signs of pregnancy complications and what to do if the mother had any of those complications.

Here according to the benefit of our study we grouped our study variables into four categories: women's social and demographic characteristics, husband's social and demographic characteristics, their perceptions of the household decision making and use of reproductive health care services as ANC visit and place of delivery.

Social and Demographic Characteristics

A number of social and demographic characteristics were considered in the analysis, including husbands' age, number of children ever born, husband wife age gap, education, place of residence, alcohol consumption of the husband, presence of violence, desire for children, religion, caste and justification of wife beating, Because community norms and values influence individual behavior. we also assessed the social and demographic impacts on ANC visit and non institutional delivery for separate states. Education has been consistently related both to use of maternal and child health services and to positive health outcomes. We categorized husbands' education levels as none, primary, secondary and higher. Indicators of the household's socioeconomic circumstances included husband's education and occupation, as well as standard of living index.

Use of Maternal Health Care

We assessed the outcome variables are receipt of skilled antenatal care services with the presence of husband as at least once during the last pregnancy or youngest child, and place of delivery of the youngest child.

V. Statistical Analysis

Univariate, bivariate and multivariate analyses were used to study the impact of husbands' decision making power and the utilization maternal health care services for their wives. We first examined the bivariate relationships of husbands' social and demographic variables with their use of skilled antenatal and delivery care. Next, multivariate logistic regression models were developed to identify associations between the indicators of women's household position and their use of antenatal care services and skilled maternal health care services. Our models controlled for a series of variables, including age and number of children ever born, desire for children, residence, education, socioeconomic status, household relation, justification of wife beating, husband drink alcohol or not etc.

VI. Results

Table-4.2.3 presents information on husband's involvement during antenatal care visits. In all age group most of the husbands present at the time of antenatal care visit but those husbands are belongs to 15- 24 years their presence at the time of antenatal visit are very low (65 percent) compared to other age groups. If we see the husband's presence according to the age we found increasing the age the presence is also increasing but after 35-39 years age group husbands presence decreases. Husband's presence at the time of ANC visit also varies according to the number of children. Among those couples have more than 5 children among those husbands' presences at the time of ANC visits are very less (69 percent). Those couples with 1-2 children among them husbands presence is higher (77 percent). Among Hindus 75 percent are present at the time of antenatal visit.

Table-4.2.3 Percentage distribution of husband's presence (non presence) in last ANC of mother by husbands' background

		Husband present during check-ups for youngest child		
Background characteristics		Not present	Present	Total
Age	15-24	34.68	65.32	1093
	25-29	25.68	74.32	3061
	30-34	22.88	77.12	2968
	35-39	22.39	77.61	1755
	40-44	24.48	75.52	678
	45 and above	29.07	70.93	289
No. of living children	1-2 children	23.24	76.76	6664
	3-4 children	29.13	70.87	2451
	five or more	30.73	69.27	729
Religion	Hindu	24.87	75.13	7865
	Muslim	27.27	72.73	1419
	Others	25.85	74.15	561
Caste	SCs	28.29	71.71	1909
	STs	32.26	67.74	868
	OBCs	24.53	75.47	3640
	Others	22.07	77.93	3050
Place of residence	Urban	19.74	80.26	3632
	Rural	28.49	71.51	6212
Standard of living index	low	34.49	65.51	2018
	medium	27.97	72.03	3182

	high	18.87	81.13	4139
Highest educational level	No education	34.82	65.18	1700
	Primary	35.72	64.28	1744
	Secondary	22.43	77.57	5051
	Higher	10.25	89.75	1346
Total		25.26	74.74	9841

It is also highest from all others religions. According to the castes those belonging to others the presence at the time of ANC is highest among them (78 percent), followed by OBCs (75 percent), SCs (72 percent) and STs (68 percent). It is also higher in the urban areas (80 percent). Those who are living in the higher standard among them 81 percent are present at the time of ANC visit. Those husbands with higher education among them presence at the time of ANC visit is higher (90 percent) followed by those are achieve secondary education (77 percent), those with primary education and those have no education (65 percent). So from the above table we find, there is a strong negative relationship between the father's number of children ever born and his presence during any antenatal check-up of the mother, and a positive relationship between both the man's educational level and his wealth status and his presence during antenatal check-ups. Those husbands belongs to 15-24 and 45 or above years age group having more number of children, belongs to STs, living in rural areas with low standard of living and also have no education among them the presence with their wife at the time of ANC visit is very low.

Table-4.2.4 shows the distribution of men aged 15-49 whose youngest child was less than three years of age at the time of the survey and for whom the mother did not receive any antenatal care by the main reason for not receiving antenatal care. 40 percent of men thought it was not necessary for the mother to receive antenatal care.

Another 15 percent of men said that their family did not think it was necessary or did not allow the mother to receive antenatal care. For 20 percent of men, the main reason for the mother not receiving antenatal care was that it costs too much. The reasons given by men for the mother not receiving antenatal care are similar in rural and urban areas. However, a much higher proportion of rural men (20 percent) than urban men (14 percent) gave cost as the main reason for the mother not receiving antenatal care. A larger proportion of men in urban areas than in rural areas said that their family did not think it necessary or did not allow the mother to receive antenatal care.

Table-4.2.4 Reasons why child's mother did not receive antenatal care: Men's reports

Percent distribution of men age 15-49 whose youngest living child was age 0-35 months and the child's mother did not receive antenatal care when pregnant with the child by the main reason for not receiving antenatal care, according to residence, India, 2005-06

Reason why mother did not received antenatal care	**Urban**	**Rural**	**Total**
Man did not think it was necessary	38.8	40.7	40.4
Family did not think it was necessary	20.3	14	15
Childs mother did not want check-up	10.4	9.1	9.3
Has had children before	1.5	1.6	1.6
Costs too much	14	20.7	19.6
Too far/no transportation	1.2	3.9	3.4
no female health worker available	0.9	1.4	1.3
Other	3	2	2.2
Don't know /missing	9.8	6.5	7
Total	100	100	100
Number of men	756	3944	4699

Source: NFHS-3 report

Table-4.2.5 shows the place of birth of the youngest child according to the background characteristics. More than half of the husband said that their youngest child was not born in the hospitals or in a health facility. If we see it according to the age we found in all age groups of husbands more than 50 percent said that their youngest child did not born in the hospital. Delivery in hospital is very less among 15-24 years age group. It increases up to age 34-39 and then decrease. Institutional delivery is

negatively related with the no of living children. It is highest among those have 1-2 children (56 percent) and lowest among those have 5 or more children (15 percent). Institutional delivery is lowest among Muslims (36 percent) and highest among the other religions (53 percent). Institutional delivery is very low among STs (21 percent) followed by SCs (36 percent), followed by OBCs (43 percent) and others (56 percent). In urban areas it is 70 percent and in rural areas it is 31 percent. Those are living in low standard of living near about 80 percent of them are goes for non institutional delivery and its opposite those are in high SLI 68 percent among them goes for institutional delivery.

Table-4.2.5 Percentage distribution of safe delivery by fathers background characteristics, India, 2005-06

Background characteristics		Place of birth		
		Hospital	Other	Total
Age	15-24	37.65	62.35	1737
	25-29	42.53	57.47	4345
	30-34	46.85	53.15	4305
	35-39	44.85	55.15	2709
	40-44	37.13	62.87	1193
	45 and above	24.74	75.26	578
No. of living children	1-2 children	56.15	43.85	8568
	3-4 children	28.21	71.79	4300
	five or more	14.76	85.24	1998
Religion	Hindu	43.09	56.91	11847
	Muslim	35.98	64.02	2276
	Others	53.23	46.77	744
Caste	SCs	35.90	64.10	3117
	STs	20.87	79.13	1572
	OBCs	43.04	56.96	5706
	Others	56.31	43.69	3969
Place of residence	Urban	69.79	30.21	4340
	Rural	31.26	68.74	10527
Standard of living index	Low	20.66	79.34	4231
	Medium	35.83	64.17	4909
	High	68.48	31.52	4937
Educational level	No education	18.81	81.19	3834
	Primary	34.69	65.31	2744
	Secondary	51.51	48.49	6734
	Higher	75.92	24.08	1549
Decision about health care	Husband alone	43.87	56.13	3205
	H-F jointly	44.31	55.69	5441
	Others	40.23	59.77	6220
Husband present during check-ups for youngest child	Not present	42.72	57.28	2486
	Present	62.05	37.95	7357
Total		42.51	57.49	14861

If we see it according to the educational attainment we found those have no education among them only 19 percent goes to hospital for delivery. It increases according to the increase of educational attainment of the husband. More than 75 percent husband from higher educated group said that their youngest child born in health facility. If husband not present at the time of ANC visit then only 42 percent goes for hospital to delivery but if husband present at the time of ANC then more than 62 percent wife goes to hospital for delivery. If the husband present at the

time of ANC visit then wife is more likely goes to hospital for delivery.

Now we are trying to understand the reasons which lead institutional delivery and simultaneously increase non institutional delivery also.

Table-4.2.6 shows that, those who are living in rural and urban areas among them 15 percent of urban and 85 percent of rural husbands think that there is some reason which leads to non institutional delivery. If we compare urban and rural we found that 13 percent of urban and 87 percent of rural husbands said that cost is the main reason for not going to hospital for delivery. At least 92 percent of husband from rural area said hospital is too far and there is no transportation which prevents to go to hospital for delivery.

Table –4.2.6 Institutional delivery of youngest child

Percent distribution of husband aged 15-49 who has not experienced safe by whether the child delivery by reasons, according to the place of residence.

Reason for not delivering youngest child in health facility

	Place of residence			
	India	Urban	Rural	Total
Cost too much	5.01	13.16	86.84	2113
Facility closed	0.37	20.51	79.49	156
Too far/no transportation	1.52	7.79	92.21	642
Don't trust facility/poor quality service	0.28	21.37	78.63	117
No female provider	0.13	15.09	84.91	53

Cont…..4.2.6

	Place of residence			
	India	Urban	Rural	Total
Mother did not think necessary	2.19	21.67	78.33	923
Husband did not think necessary	5.49	14.20	85.80	2317
Family did not think necessary	3.60	16.39	83.61	1519
Other	0.72	22.70	77.30	304
DK	0.13	16.67	83.33	54
Total	20.26(42183)	15.33	84.67	8547

The major cause for not delivering youngest child in health facility is cost that is too much (5.01 percent), husband did not think it is necessary (5.49 percent), family did not think it is necessary (3.60 percent) followed by mother did not think it is necessary and other causes related health facilities.

4.2.7 Multivariate findings

Table-4.2.8 Odds ratios from logistic regression analysis assessing associations between the husband's presence at the time of ANC and couples background characteristics.

Odds ratios of ANC care

	Exp b/significance			
Characteristics	**India**	**UP**	**WB**	**MH**
age 15-24	1	1	1	1
25-29	1.26*	---	---	1.95*
30-34	1.33*	---	4.55*	----

	35-39	1.35*	---	3.44*	2.26*

Odds ratios of ANC care

	40-44	1.46*	---	5.75*	---
	45 and above	1.42*	4.31*	---	---
Age gap	wife is older or same	1	---	---	---
	husband is 1-5 years older	1.31*	---	---	---
	h 6-10 years older	1.33*	---	---	---
	more than 10 years older	1.34*	---	---	---

Cont…..

		Exp b/significance			
	Characteristics	**India**	**UP**	**WB**	**MH**
No. of living children					
	No children	1	1	---	---
	1-2 children	.77***	.69*	---	---
	3-4 children	.79*	---	---	---
Education	No education	1	1	---	1
	Primary	---	---	---	---
	Secondary	1.31***	2.26***	---	---
	Higher	2.44***	4.27***	---	4.09*
occupation	service sector	1	---	---	---
	Agriculture	.69***	---	----	.48*
	industrial workers	.83*	---	---	.60*
	not working	.50*	---	---	---
Religion	Hindu	1	1	1	1
	Muslim	---	1.47*	.29*	.42*
	others	.76*	---	---	---
caste	SCs	1	---	1	---
	STs	---	---	.12*	---
	OBCs	1.22*	---	---	---
	Others	---	---	----	----
SLI	low	1	---	---	---
	medium	---	---	---	---
	high	1.38***	---	---	----
Desire for children					
	want no chil	---	---	1	---
	want chil	---	---	.35*	----
violence	No vio	1	---	---	---
	Physical vio	.79***	---	---	---
	Emotional & sexual vio	.73***	---	---	---
N		7668	896	249	894

0=Husband not present at ANC 1= Husband Present

Only significant values are given

In this multivariate model our dependent variable is husband's presence or absence during any of the ANC visit of wife. We coded it as '0' means husband not present and '1' means husband present. First we did regression in all India level and then the same model we used for state level to see the determinants of husbands presence at the time of ANC visit of the mother. The multivariate model shows that in all India level age, age gap, number of living children, religion, caste, education, occupation and SLI are the main determinants of husband's presence at the time of ANC visit. Age and husbands presence at the time of ANC with wife is significantly related. With the increase of age odds ratio also increases. Compared to the 15-24 years age group 40-44 years age group husbands are 46 percent more present at the time of ANC. Age gap is one of the important predictor of husband's presence at ANC with his wife. Those husbands who are ten years or more older than their wives their presence is 34 percent more present at the time of ANC compare to those husbands with same age or with older wives. But the chance of husband's presence at the time of ANC visit decreases with the increase of no of children. Compared to those who have no children, those have 3-4 children are 21 percent less likely present at the time of ANC. Those who have the higher education are two and half time more likely present at the time of ANC of their wife compared to those husbands' have no education. According to the occupation, those husbands are working at service sector, are more likely to present compared to

those are working in agriculture sector (.69), industrial sector (.83) and those are not working at the time of ANC visit with wife. Among all religions those are not belongs to Hindu and Muslim are less likely to present at the time of ANC. OBCs are 22 percent more likely to present at the time of ANC visits with their wife. Compared to those are living in low standard, those are living with higher standard are more (38 percent) likely to present at the time of ANC. Presence of violence is also one of the important determinants of husbands presence at the time of ANC visit. Compared to no violence the presence of physical violence reduces the chance (21 percent) of husband's presence at the time of ANC visit. Those couples are experienced by emotional and sexual violence, the husband is 27 percent less likely to present at the time of ANC.If we apply the same model to see the determinants in UP we found compare to 15-24 years age group, those are belongs to 45 or more years age group are near about 4.3 times less likely present at the time of ANC. Positive association also found with education and religion. Those have secondary education, compare to those have no education they are more than two times more likely to present with their wife at the time of ANC, it also increase among higher age groups. Those husbands have the higher education; they are four times more likely to present at the time of ANC visit, with wife. In UP among Muslims husbands presence at the time of ANC are higher compare to Hindus.

In West Bengal the main significant determinants of husband's presence at the time of ANCs are husband's age, religion, and caste and desire for children but in Maharashtra the main determinants are husband's age, occupation, education and religion. Surprisingly we didn't find any significant relationship between place of residence and husband's presence at the time of ANC visit.

Table-4.2.9 shows the association between the non institutional deliveries with the couple's background characteristics. In all India level non institutional delivery is associated with all important couple's background characteristics. From here we can understand the negative and positive associations and compare it. The result shows with increasing age non institutional delivery decreases.

Compared to 15-24 years age group those women with more than 35 years of age are at least 50 percent less likely goes for non institutional delivery i.e. institutional delivery increases. According to the age gap if wife and husband's age is same or wife is older than they are more likely to goes for institutional delivery. Results clearly show that age gap leads institutional delivery. Number of living children is positively related with non institutional delivery. Those have 1-2 children compare to those have no children goes 2.5 times more to non institutional delivery and those have 3-4 children goes four and half times more to non institutional delivery. It clearly shows that increasing the number of children decrease the probability to go for institutional delivery. Non institutional delivery is negatively associated with educational attainment. Compare to uneducated husband those have primary education 20 percent less likely goes for non institutional delivery.

It farther increases 23 percent among those have secondary level education and farther increases near about 50 percent among those have higher education compared to those have no education

Table-4.2.9 Odds ratios from logistic regression analysis assessing associations between the place of delivery of youngest child and couples background characteristics.

Odds ratios of non-institutional delivery

		Exp b/significance			
	Characteristics	**India**	**UP**	**WB**	**MH**
Age	15-24	1	1	---	---
	25-29	0.94	---	---	---
	30-34	0.76*	---	---	---
	35-39	.57***	.47*	---	---
	40-44	.55***	---	---	---
	45 and above	.57**	---	---	---
Age gap	Wife is older or same	1	---	---	---
	Husband is 1-5 years older	.79*	---	---	----
	H 6-10 years older	.71**	---	----	---
	More than 10 years older	0.8	---	---	---
No. of living children					
	No children	1	1	1	1
	1-2 children	2.49***	1.56*	6.57***	1.87**
	3-4 children	4.47***	2.29*	26.27**	---

Odds ratios of non-institutional delivery

		Exp b/significance			
Education					
	No education	1	1	1	1
	Primary	0.81*	---	---	.34*
	Secondary	.77**	---	3.67*	.20***
	Higher	.54***	.40*	---	.10***
occupation					
	Service sector	1	---	---	1
	Agriculture	1.43***	----	---	1.95*
	Industrial workers	0.99	---	---	---
	Not working	1.02	---	---	---
Religion	Hindu	1	---	1	---
	Muslim	1.24*	---	3.32*	---
	Others	1.25*	---	---	---

	Characteristics	India	UP	WB	MH
Caste	SCs	1	1	1	1
	STs	1.64***	---	---	2.21*
	OBCs	.76***	.64*	.07*	---
	Others	.79**	.38***	---	---
SLI	low	1	1	1	1
	Medium	0.89	---	---	.41**
	High	.49***	.41*	.07***	.17***
Desire for children	Want no chil	1	---	---	---
	Want chil	.77**	---	---	---
Place of residence	Urban	1	1	1	---
	Rural	2.16***	1.92**	5.02**	---
violence	No vio	1	1	---	1
	Physical vio	1.1	1.55*	---	3.05***
	Emotional & sexual vio	1.36***	1.56*	---	---
Justification of wife beating	No	1	---	---	---
	Yes	0.94	---	---	---
Wife's health care decision	Wife alone	1	---	---	1
	Jointly	1.27***	---	---	1.55*
	Others	1.20**	---	---	---
Alcohol use	No	1	---	---	---
	Yes	0.93	---	---	---
Husband's presence in ANC	No	1	---	1	---
	Yes	.57***	---	.29**	---
N		7659	893	245	894

Cont…

0= institutional **1= non institutional delivery**

Only significant values are given.

This shows that non institutional delivery decreases according to the increase of education. Those husbands who are in agricultural sector compare to those are in service sector are 43 percent more likely to go for non institutional delivery but those husbands are working in industrial sector are less likely to go for institutional delivery although the difference is very low among those who are working in service sector, those are working in industrial sector and those are not working. Religion and institutional delivery are also associated with each other. Compared to Hindus among Muslims non institutional delivery is 24 percent more and in other religions it is 25 percent more. Compared to STs non institutional delivery is 64 percent more but it is 21-24 percent less among OBCs and other caste groups. Those with higher standard of living are 50 percent less likely chose to go for non institutional delivery. That indicates those are living higher standard are more likely to go for institutional delivery. Desire for children also negatively associated with non institutional delivery. Place of residence is also very strongly associated with non institutional delivery. Compared to urban those living in rural areas are at least two times more likely to go for non institutional delivery. Emotional and sexual violence is significantly associated with non institutional delivery. Compared to those couple experiencing no violence, those are experiencing emotional and sexual violence is 36 percent more likely to goes for non institutional delivery. Wife health acre decision and non institutional delivery also significantly related. If wife jointly or others take decision about health care compare to wives alone decision about health care are more likely leads non institutional delivery and it is 27 percent more when health care decision taken jointly with husband and 20 percent more when others take health care decision compare to wife alone. It also negatively associated with the husband's presence at the time of wives ANC visit. Compared to husbands not present at ANC those husband are present at the time of ANC are 43 percent less likely go for non institutional delivery. This clearly shows that husband's presence at the time of wives ANC visit increases the probability to for an institutional delivery. We did not found any significant relation between wives justification of wife beating and husbands alcohol consumption and non institutional delivery.

In UP, age, number of living children, caste, SLI, place of residence and presence of violence are significantly associated with non institutional delivery. In West Bengal number of living children, education, religion, caste, place of residence and husbands' presence at the time of ANC visit with wife is significantly associated with the non institutional delivery but in

Maharashtra number of living children, occupation, education, caste, SLI, presence of physical violence and couples joint decision about health care are significantly associated with non institutional delivery.

In UP husbands aged 35-39 are more than 50 percent less likely to go for non institutional delivery. Those have 1-2 children compared to those have no children goes one and half times more to non institutional delivery and those have 3-4 children goes near about two and half times more for non institutional delivery but non institutional delivery is 60 percent less among those have higher education. Compared to SCs among OBCs non institutional delivery is 36 percent less and among others it is 62 percent less. Those who live in higher SLI among them also non institutional delivery is less but it is very high in rural areas. Presence of violence also reduces the probability to go for institutional delivery.

In West Bengal those who have more number of children is less likely to go for institutional delivery. Surprisingly those have secondary education are three and half times more likely to go for non institutional delivery. It is also higher among Muslims. Those are living in rural areas are five times more likely goes for non institutional delivery. Those husbands are present at the time of wives ANC visit are also more likely to go for institutional delivery. In Maharashtra violence and wives decision about health care are also positively associated with non institutional delivery. Compared to no violence presence of physical violence increase the probability to go for non institutional delivery three times more like wise husband and wives joint decision about health care also increases non institutional delivery at least one and half times as compared to wife take decision about health care alone.

VII. Conclusions

From the above analysis we can conclude that husband can significantly influence the women's health care utilization. In all India level and in state label some factors which determine the women's ANC visit and decide the place of delivery are same. Education , age, place of residence, number of living children, caste, religion are some of the major factors which reduce husbands presence at the time of ANC visit and also restrict women into the house hold and leads non institutional delivery. Presence of violence decreases the husbands' presence at the time of wives ANC visit but increase the institutional delivery. Which also indicate that husbands' presence at the time of ANC does not improve institutional delivery. If wife jointly with her husband or someone else take decision about health care then also institutional delivery does not increase. This result also shows that until or unless the women are able takes decision alone the institutional delivery does not increase. In Maharashtra occupation is coming one of the important factors which determine the husbands presence at the time of wives ANC visit and place of delivery. In both the cases those are working in agriculture sector are far behind from those are in service sector. Results from Maharashtra also support that joint decision making does not improve institutional delivery.

References

[1] Acharya M and Bennett L,(1983), Women and the Subsistence Sector: Economic Participation and Household Decision-making in Nepal, Working Paper, Washington, DC: World Bank, No. 526.

[2] Adewuyi A and Ogunjuyigbe P.(2003). The role of men in family planning: An examination of men's knowledge and attitude to contraceptive use among the Yorubas. African Population studies. 18(1): 35-49.

[3] Allendorf Keera (2007). Coupples' reports of womens autonomy and health- care use in Nepal. Studies in family Planning 2007, 38 (1):35-46.

[4] Asian Development Bank (ADB), (1999), Women in Nepal, country briefing paper, Kathmandu, Nepal: ADB.

[5] Balaiah D, D.D. Naik, R,C. Prida, M. Ghule , K.T. Hazari, H.S. Jueja (1999) Contraceptive Knowledge, attitude and practices of men in rural Maharastra. Advances in contraception, 1999:15:217-234

[6] Bankole A (1994) The Role of Mass Media in Family Planning Promotion in Nigeria, DHS Working Papers, Calverton, MD, USA: Macro International, No. 11

[7] Bankole A and Westoff CF, The consistency and predictive validity of reproductive attitudes, Journal of Biosocial Science, 1998 (forthcoming).

[8] Batliwala, Srilatha (1994). "The Meaning of Women's Empowerment: New Concepts from Action", in Gita Sen, Adrienne Germain and Lincoln Chen (Eds.), PopulationPolicies Reconsidered. Health, Empowerment and Rights, Cambridge, Mass.Harvard University Press.

[9] Becker S and Costenbader E,(2001) Husbands' and wives' reports of contraceptive use, Studies in Family Planning, 32(2):111–129.

[10] Berhane Y, Mekonnen E, Zerihun L, Asefa G (1999). Perception of fertility regulation in a emote community, south Ethiopia. Ethiop J Health Dev. 13(3):217-221.

[11] Caldwell JC, Caldwell P (1990) "Cultural forces tending to sustain high fertility". In: Population growth and reproduction in sub-Saharan Africa. Technical analysis of fertility and its consequences. World Bank Washington DC: USA.199-214.

[12] Chatterjee N, N.E. Riley. Planning of Indian Modernity (2001) The Gender Politics of Fertility Control, Journal of Women in Culture and Society, 26(3):811-845.

[13] Collumbien M, Hawkes S. (2000) "Missing men's message: does reproductive health approach respond to men's health needs? Culture, Health and Sexuality, 5(7):37-44

[14] Dali SM, Thapa M and Shrestha S,(1999), Education for Nepalese women to provide improved care for their childbearing daughters-in-law, World Health Forum, 13(4):353–354.

[15] Drenan, S Mbizvo V and Basset M (1998), "Reproductive Health: New Perspective on Men's Participation", American Jurnal of Public Health, 88(4): 646-648

[16] Ezeh AC, Serousi M, Raggers H (1996). Men's fertility, contraceptive use and reproductive preference. Demographic and Health Survey, Comparative Studies No. 18 Maryland: Macro International Inc,

[17] Ezeh AC, Seroussi M and Raggers H, 1996, op. cit. (see reference 17); and Westoff CF, Reproductive intentions and fertility rates, International Family Planning Perspectives, 1990, 16(3):84-89.

[18] Ghuman S. J, Helen Lee J, Smith H.L, (April 2004).Measurement of women's autonomy according to women and their husbands: Results from five Asian countries. PSC Research Report. Report no. 04-556. www.psc.isr.umich.edu/pubs/

[19] Greene ME, Biddlecom AE (2000) absent and problematic men: Demographic Accounts of Male Reproductive Roles, 2000. Population and Development Review 26(1):81-115

[20] Hakim A, Salway S and Mumtaz Z,(2003), Malhotra A, Schuler S and Boender C, Measuring Women's Empowerment as a Variable in International Development, New York: Gender and Development Group,

[21] Hauser PM, Family planning and population programs: a book review article, Demography, 1967, 4(4):397-401; and Demeny P, Social science and population policy, Population and Development Review, 1988, 14(3):451-479, 535 & 537.

[22] Hossain Mian B. ; Phillips James F. ; Khorshed A. B. M; Mozumdar A. (2007) The effect of husbands' fertility preferences on couples' reproductive behaviour in rural Bangladesh., Journal of biosocial vol. 39, n5, pp. 745-757

[23] Isiugu-Abanihe, UC.(1994). Reproductive motivation and family size preferences among Nigerian men. Studies in Family Planning. 25(3):149-161.

[24] Jeffery P and Jeffery R,(1996), What's the benefit of being educated? girls' schooling, women's autonomy and fertility outcomes in Bijnor, in: Jeffery R and Basu AM, 1996, pp. 50–183;

[25] John Cleland,(2004) "Power over reproductive health decisions: Relative roles of husband and wives in eastern and southern Africa". Presented at International Conference on Men as Partners in sexual and reproductive Health-28 november-1 December, Mumbai,india.

[26] Malhotra A, Schuler S and Boender C, (2002), and Kabeer N,1999, Resources, agency, achievements: reflections on the measurement of women's empowerment, Development and Change, 30(3):435–464.

[27] Malhotra, A; Schuler, Sidney Ruth and Boender, Carol 2002: "Measuring women's empowerment as a variable in International Development", paper prepared for World Bank.

[28] Morgan SP and Niraula BB, (1995), Gender inequality and fertility in two Nepali villages, Population and Development Review, 21(3): 541–562.

[29] Mumtaz Z and Salway S,(2005), I never go anywhere: extricating the links between women's mobility and uptake of reproductive health services in Pakistan, Social Science & Medicine, 60(8):1751–1765.

[30] National Family Health Survey- 3 Report, (2005-06), International Institute for Population Sciences (Mumbai).

[31] Neidell, S. G. 1999. Agency from Within: The Power of Relationships and Women's Influence on Contraceptive Use in South Asia. Ph.D. Dissertation, Department of Sociology. Philadelphia,

[32] Saha K.B, Singh N, Chatterjee U, Ray J, (2007)," Male Involvement in Reproductive Health among Scheduled Tribe: Experience from Khairwars of central India". Rural and remote Health 7(2), pp.605

[33] UNFPA (1995). Male's participation in women's reproductive and sexual health. New York, United Nations Fund for Family Planning Acivities, decumento technico No 28,

[34] United Nations (UN) (1998): World Population Monitoring,: 'Health and mortality: Selected Aspects', UN

[35] United Nations International Conference on Population and Development,(1994) Programme of Action, accessed Feb. 24, 2006..

[36] Wang Yi-Fi (2000). Male reproductive health research needs and research agenda: Asian and Pacific perspective. International Jurnal of Andrology, 23, 2:4-7.

[37] World Health Organisation (2002) Programing for male involvement in reproductive health: Report of the meeting of WHO regional Advisers in Reproductive Health: Geneva, WHO

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