Reliability in wife's reporting of husband's age in India: Empirical evidence from a large scale survey

Key words: Age, reporting, husband, wife, reliability, India.

Abstract: Age is one of the most basic and important information collected in almost all demographic and health surveys. Most of the demographic researches on fertility, reproductive health and contraception focus on females of particular age group who are in their reproductive period. Important demographic indicators like fertility, contraception and mortality are estimated on the basis of reporting of the female respondents. This particular study is makes an attempt in exploring the degree of matching and mismatching in reporting of the age of the husbands by the wives in India. The present study analyses the concordance and discordance of the reporting of the husband's age as reported by the wife and by the husband himself by using a nationally representative sample size of 42185 couples. It is found that in India about 58 percent cases, there is mismatch in reporting of husband's age as reported by the wife and the husband.

Introduction

Traditionally, fertility and family planning research and programs have focused on women(Becker, 1996).With the expansion of the field to include reproductive health following the 1994 International Conference on Population and Development in Cairo(ICPD, Cairo, 1994), the more appropriate focus for most reproductive health components appears to be sexually active couple. Recently there have been studies on couples and their reproductive health outcomes focusing on reproductive events, of attitudes and reproductive intentions, of the effect of each partner's attitudes and intentions, of reproductive outcomes, and of the effectiveness of interventions that target couples compared with those that target one partner or the other. For couple's statements

about reproductive events, studies throughout the world typically show identical reports less than 90 percent of the time. Concordance between partners on subjective matters is in the range of 60 to 70 percent. Data based on reports of reproductive intentions from both partners have been shown to lead to better predictions of behavior than have data from only partner. Finally, reproductive health interventions that target couples are found to be more effective than those directed to only one sex. The evidence clearly justifies a focus on couples.

Age difference between spouses influence fertility though at least three mechanisms. First, there is evidence that fecundability varies slightly with age of the man, and thus the age difference will affect marital fertility. The age difference is also positively associated with the risk of dissolution of marriage through widowhood before the end of a women's reproductive years. Finally, more substantial but less direct effect of the age difference on fertility, and on other variables as well, may come about through its influence on relations between the spouses and the resulting impacts on variables such as marital stability, marital satisfaction, family size preference and contraceptive use.

Casterline analyzed world fertility survey (WFS) data on 48826 couples from 28 countries which encompass an impressive diversity of culture and demographic settings(Casterline,1986). In all countries, the analysis is confined to marriages for the wife. In all WFS survey the criterion for marriage is cohabitation rather than a formal ceremony or document. Age difference distribution is examined for marriage cohorts of women who first married during the ten years preceding the survey date. Throughout the analysis the age difference is calculated as the difference between the husband's age and that of the wife. Variance of the husband age at marriage is larger than the wife's. That's

why the husband age at marriage contributes more than the wife's variation in the age difference. The variation in age difference distribution between societies can be directly interpreted in terms of two sets of factors: kinship structure and the status of women, themselves closely linked together. In patriarchal societies and in societies characterized by patrilineal kinship organization, the age difference is relatively large and unions in which the husband is ten or more years older are relatively frequent. In those settings where the traditional social structure allows for a more equal status of spouses, where western forms of family formation have become common, or where exposure to the West and the processes of modernization has improved the status of women, the age difference is relatively small (Casterline,1986).

The age difference between a female and her partner may influence relationship dynamics in ways that put the female at increased risk of unintended pregnancies and sexually transmitted diseases. Data from 1975 female participants in the National Longitudinal Study of Adolescent Health were analyzed using logistic regression to determine whether the age difference between an adolescent female and her romantic partner is a risk factor for sexual intercourse. Adolescent females involved with an older partner have higher odds of having intercourse with that partner than females with partners their own age, after adjustment for demographic covariates. The magnitude of this association is most dramatic among the youngest females—for example, the odds of intercourse among 13-year-old females with a partner six years older are more than six times the odds among 13-year-old females with a same-age partner (odds ratio, 6.4), while 17-year-old females with partners six years older have about twice the odds of

intercourse when compared with those who have a same-age partner (2.1). Young adolescent females with substantially older partners are much more likely than their peers to have sex with their partner, which exposes them to the risks of pregnancy and sexually transmitted diseases (Christine,2002).

If the age gap between spouses increases, the value consensus might decrease also as it may produce a power imbalance that could generate tension and will have a negative impact on inter-spouse communication. Greater communication was found to be associated with greater success of family planning. Inter-spouse communication though is not a new dimension in the family planning research; however it appears that this area has not been much explored in Indian context(Das, 1997). The present paper primarily aims to study the effect of age difference between spouses on their contraceptive use. While doing so the paper also tries to examine the effect of age difference between spouses on husband-wife communication and the effect of husband-wife communication on contraceptive use. Relevant data for the present study has been taken from NFHS 1992-93 and analysis has been restricted to the currently married women aged 13-49 who are using one contraceptive method and have married only once.

In urban areas the age difference is slightly higher than rural areas. About 75 percent of the respondents are illiterate whose age difference is 4.8 years which is comparatively higher than those who studied up to high school level and above (3.9 years). Among Muslims, mean age difference is higher as compared to Hindus. For those respondents who were married below age 18 years, their mean age difference is 5.0 years. However, for those who married after 18 years their mean age difference is comparatively less (i.e.

4.5 years).Age difference between the spouses has got an inverse relationship with inter-spouse communication i.e. as age difference between the spouses increases communication for family planning among spouses decreases. Further the study has shown that as for the husband wife communication and current use of contraception is concerned, there exists a positive relationship between these two variables i.e. as communication increases contraceptive use also found to be increasing. While examining the effect of age difference between spouses on contraceptive use the result obtained by bivariate technique though did not show significant relationship however, an inverse trend between these two variables have been observed (Das, 1997).

The study by Barbieri (Barbieri, 2005)attempts to test the existence of an association between the age difference between spouses and contraceptive practice on the basis of a of recent Demographic and Health Survey (DHS) conducted in 18 countries of continental Sub-Saharan Africa. The improvement in the status of women and more generally, the trend in gender relations towards the empowerment of women in the socio-economic sphere (education, economic activity, access to resources, etc.) and in interpersonal and family relationships (freedom of speech, freedom to travel, decision-making power, etc.) are unanimously recognized as important factors in the contemporary fertility transition. At the individual level, a large age difference generates distance between the spouses, first because age is fundamental to establishing a relationship of subordination, and second because it creates a generational and cultural gap between spouses who are at different stages in their life cycle and who had different experiences of pre-marital life.In the regions where large age differences are rare, the

spread of modern contraception is well advanced, whereas in most countries where the non-egalitarian model is widespread, contraceptive diffusion is low. For women from the 18 countries taken together, when the age difference between spouses is small, the likelihood of ever having used modern contraception is 2.4 times higher than when the age difference is large, and around one-third higher than when the age difference is moderate.

The probability for a woman of marrying a man close in age increases significantly with level of education, residence in an urban area, monogamy and Christian religion. Conversely, living in a rural area, not having been to school, the presence of co-wives and Muslim religion are individual characteristics associated with unions where the age difference is 15 years or more.The results confirm the effect of age difference between spouses on women's contraceptive practice. The probability of having ever used modern contraception is higher when the age difference between spouses is small (excluding the atypical group of women at least 5 years older than their husbands). The polygynous or monogamous nature of the union, which may be considered as another indicator of the nature of the marital relationship, has a similar (slightly smaller) effect to the age difference between spouses: being in a monogamous couple significantly increases the probability of using contraception (Barbieri, 2005).

One of the ways in men in traditional society maintained their control over women by ensuring that husband was considerably older than their wives so that the advantage of age could be add to the superiority sex(Ramachanndran, 2002). Greater age gives the husband a considerable advantage in terms of status, experience and power. Even in a

society where men and women share complete equality in education and occupational opportunities, men could always maintain their superior position as long as status increase with age and men married women younger than themselves. It is often argued that when the status of he women is low, the age gap between the boy and girl would be more. Researcher contends is also that joint decision-making in a family will mostly happen if the wife is much closer to the husband's age.

The data were drawn from the doctoral work of the senior author of this paper and were collected in January 2001. The sample size of 600 comprises 222 and 378 female respondents from rural and urban areas respectively.In Indian society, the age gap between the spouses is one of the criterion in fixing up marriage alliance. Some argue that the larger the gap, the more subordinate women will be to their husbands. In the study area, no wife was older than her husband. The average age gap between the spouses was found to be 6.9 years, which closely approximates the 7.0 years for Tamil Nadu state. With regards to place of residence, higher age gap are observed between the spouses in rural areas (7.4 years) as compared with the corresponding value for the spouses in urban areas (6.6 years). High female illiteracy and early age at marriage for girls are the most common factor in rural areas responsible for the spousal age gap. The age gap between spouses among Muslim is relatively high, which may be attributed to lower age at marriage for girls in this religious community. Schedule caste and schedule tribe have a relatively small gap. It was observed that the age gap between spouse's increases if the female age at marriage increases; education and employment may postpone age at marriage for girls leading them to seek husbands of not less than their

status or position and husbands cannot postpone their marriages for a long time (Ramachanndran, 2002).

The main object of another present study was to study the historical perspective of the age gap between the sexes, at the time of marriage, trends and differentials and also to examine the linkages between the age difference between the sexes and the status of women(Sharma, 1994). For the present study data has been collected from the census of India and Orissa baseline Survey 1982. The Orissa baseline survey was conducted in the five district of Orissa. Out of these five districts two districts namely Kalahandi and Phulbani districts were analysed in this paper. In the Hindu mythology there is a mention about the age gap between the sexes at the time of marriage Manusamitha (one of the sutras) prescribed that a man of thirty to marry a girl of twelve and a man of twenty four to marry a girl of eight. According to Manu (the first Indian law giver) the ideal marriage was one in which the bride was one third the age of groom. Kamasutra (Hindu science of love), a contemporary work, records that a wife should be younger than the bride groom by at least three years. This study reveals that the age gap between the sexes is decline over the period of time. Southern states tend to have wider age disparity than north India. Hindu, Brahmins, older generation women and illiterates less educated have higher age gap between the sexes than their counter parts (Sharma, 1994).

Age is one of the most basic and important information collected in almost all demographic and health surveys. Most of the research on fertility, reproductive health and contraception focus on males and females of particular age group especially who are in their reproductive age group. Women and men belonging to this particular age bracket

only become eligible respondents to provide information on those aspects. Most of the demographic indicators are estimated on the basis of reporting of the female eligible respondent. The available literature on the concordance and discordance of the reporting of age between husband and wife is also scanty especially throughout the developing countries in general and India in particular. Hence, this particular study is makes an humble attempt in exploring the degree of matching and mismatching in reporting of age by the couples in India.

Data and methods

The present paper discusses the reliability(matching and mismatching) in wife's reporting of age of the husband. For this study we have used the data of the National Family Health Survey-3 (NFHS-3). NFHS-3 collected information from 42185 ever married couples. In the present chapter, the data analysis has been done using the information of all the couples(ever married as well as currently married couples). Information about the age and education of the husband is collected separately from two sources namely from the husband himself as well as from the wife. There were separate questionnaires for women and men. Women were also asked to report about their husband's age and education. Similarly husbands were also asked to report their own age and education. If a woman reports her husband's age or education different from that reported by the husband himself, we consider it as mismatch, otherwise, it is matching.

Both bivariate and multivariate analysis has been used for the analysis. For bivariate analysis, we divided mismatch in reporting of husband's age and education by the wife into four categories :a) wife reported lower by less than equal to three years, b)wife reported lower by greater than three years, c)wife reported higher by less than equal to three years and d)wife reported higher by greater than three years. In order to examine effect of socio-economic and demographic factors on mismatch of age, logistic regression analysis was carried out in which dependent variable is mismatch and independent variables are marital duration (< 10 year, 10-20 years and 20+ years), marriage type

(married once and married more than once), place of residence (urban and rural), education of women (no education, primary, secondary and higher), husband's education (no education, primary, secondary and higher), religion (Hindu, Muslim and others), caste (SC, ST, OBC and others), household structure (nuclear and joint), wealth (poor, middle and rich), mass media exposure (no exposure, partial exposure and full exposure).

Results and discussion

Table 1 shows the mismatch in age of husband as reported by wife and by the husband himself by education of husband and wife(self reported) . The education of the couple is grouped into six categories. Among the illiterate couples, mismatch in reporting of age by the husband and wife is found in more than half of the (55 percent) cases and 56 percent mismatch among the cases where husband is illiterate and wife is primary or below secondary educated. Among the couples where husband is illiterate and wife is secondary plus, the mismatch in age reporting is 48 percent and 52 percent mismatch where husband is primary or below secondary and wife illiterate. Among the couples where both are primary or below secondary, the mismatch is 60 percent and it is 59 percent mismatch where husband is primary or below secondary and wife is secondary plus. Similarly among the couples where husband is secondary plus and wife illiterate, the mismatch in age reporting is 70 percent, 52 percent where husband is secondary plus educated and wife primary or below secondary and 46 percent where both are secondary plus. Mismatch in reporting age of husband by more than three years is highest where husband and wife both are illiterate and lowest where husband and wife both are secondary plus educated.

Table 1: Mismatch in age of husband as reported separately by both wife and husband by education of husband and wife in India

Education of Husband and Wife	Both reported same	Wife reported husband's age lower by less than equal to three years	Wife reported husband's age lower by greater than three years	Wife reported husband's age higher by less than equal to three years	Wife reported husband's age higher by greater than three years	Total
Both are Illiterate	45.5	16.8	8.3	16.6	12.9	13496
Husband illiterate and wife primary or below secondary	44.2	21.3	5.7	20.8	8.0	2157
Husband illiterate and wife secondary plus	52.3	15.9	6.8	15.9	9.1	44
Husband primary or below secondary and wife illiterate	38.5	21.2	8.1	21.3	11.0	8903
both are primary or below secondary	39.6	27.1	7.0	21.4	5.0	9371
Husband primary or below secondary and wife secondary plus	41.0	30.6	4.4	20.9	3.2	1001
Husband secondary plus and wife illiterate	30.4	26.3	9.7	25.4	8.3	891
Husband secondary plus and wife primary or below secondary	38.1	29.1	7.3	21.5	4.1	3234
Both are secondary plus	45.7	30.3	3.9	18.3	1.8	3084
Total	**41.7**	**22.7**	**7.4**	**19.6**	**8.7**	**42181**

The information on mismatch in reporting of husband's age by wife and husband in India and states is presented in Table 2. We find that in India almost in 42 percent of the cases, both the wife and the husband reported same about the age of the husband. In other words, the proportion of mismatch in reporting the age of the husband is about 58 percent. About 23 percent women are reported husband's age lower by less than equals to three years , 7 percent women are reporting lower by great than three years, 20 percent reported higher by less than equals to three years and only 9 percent are reported higher by greater than three years. In northern region, almost 48 percent of the couples reported the same age, 21 percent reported lower by less than equal to three years, 7 percent reported lower by greater than three years, 20 percent reported higher by less than equal to three years and only 9 percent reported higher by greater than three years. In Delhi,

the mismatch in reporting of age of the husband is only 10 percent. In other states of north, mismatch is very high. For example, mismatch is 70 percent in Haryana, 66 percent in Himachal Pradesh, 69 percent in Jammu and Kashmir, 62 percent in Punjab and 64 percent in Uttaranchal. In central region, the overall mismatch in age reporting is almost 72 percent of which mismatch of three years is almost 49 percent and 23 percent for mismatch of more than three years. In Uttar Pradesh, matching in reporting by the couples is only 23 percent and mismatch is 77 percent. In Madhya Pradesh, almost half of the women reported correctly the age their husbands. In the eastern region, mismatch is almost 57 percent of which mismatch of more than three years is 17 percent. In Bihar, Jharkhand and West Bengal, more than half of the women misreported their husband's age. Moreover, mismatch of more than three years is 23 percent in Bihar, 30 percent in Jharkhand and 11 percent in Orissa. West Bengal shows 39 percent mismatch in age of duration three years and 13 percent for more than three years. In North-East, reporting of husband's age by wife is matching in almost 60 percent of the cases. In Meghalaya

Table 2: Mismatch in age of husband as reported separately by the wife and husband by states of India

State	Both reported same	Wife reported husband's age lower by less than equal to three years	Wife reported husband's age lower by greater than three years	Wife reported husband's age higher by less than equal to three years	Wife reported husband's age higher by greater than three years	Total
India	**41.7**	**22.7**	**7.4**	**19.6**	**8.7**	**42183**
North	**48.3**	**20.7**	**6.7**	**17.0**	**7.2**	**4469**
Delhi	89.6	5.7	0.3	3.6	0.8	634
Haryana	30.3	24.2	11.7	23.5	10.3	591
Himachal Pradesh	34.4	30.8	5.8	25.5	3.6	585
Jammu and Kashmir	30.6	24.7	8.5	22.2	13.9	445
Punjab	37.7	26.8	7.3	20.2	7.9	682
Rajasthan	54.5	18.3	5.9	14.2	7.2	881
Uttaranchal	35.8	27.0	7.9	23.8	5.6	534
Central	**27.7**	**23.4**	**9.4**	**25.7**	**13.7**	**9355**
Chhattisgarh	36.1	21.9	9.5	22.0	10.5	859
Madhya Pradesh	49.9	20.7	4.5	16.8	8.2	1654
Uttar Pradesh	23.3	24.0	10.3	27.5	14.9	6068
East	**43.3**	**20.2**	**6.9**	**19.1**	**10.5**	**3815**
Bihar	34.8	19.8	7.5	23.4	14.5	732
Jharkhand	32.3	20.1	13.8	18.3	15.5	607
Orissa	55.1	17.9	4.6	16.3	6.1	971
West Bengal	48.1	21.5	5.4	17.2	7.7	1589
North-east	**59.5**	**14.7**	**5.1**	**13.7**	**7.0**	**4579**
Arunachal Pradesh	55.7	13.1	5.6	19.5	6.1	359
Assam	56.7	14.9	6.2	12.5	9.8	746
Manipur	64.5	15.1	1.9	16.6	1.9	2047
Meghalaya	85.8	7.9	1.8	3.6	0.9	331
Mizoram	82.1	7.9	0.0	10.0	0.0	330
Nagaland	65.0	13.3	3.2	15.7	2.8	1845
Sikkim	39.5	31.1	5.2	21.5	2.7	405
Tripura	41.2	22.8	8.4	20.3	7.2	403
West	**37.3**	**25.8**	**8.7**	**20.4**	**7.9**	**6623**
Goa	34.8	34.2	10.7	16.6	3.7	541
Gujarat	41.6	24.3	8.0	22.6	3.6	842
Maharashtra	36.4	26.1	8.8	19.9	8.8	4697
South	**46.0**	**25.0**	**6.4**	**17.4**	**5.2**	**11650**
Andhra Pradesh	58.7	19.3	5.3	12.6	4.1	4452
Karnataka	29.4	28.5	10.1	21.5	10.5	2983
Kerala	48.5	28.2	3.2	18.4	1.6	620
Tamil Nadu	41.0	29.6	5.5	20.6	3.3	3347

and Mizoram, more than 80 percent of the women are reporting same age of the husband as reported by the husband himself. In western region, only 37 percent of the

women reported same age of their husbands as reported by the husbands themselves. Among other women, mismatch of three years age is almost 46 percent and 17 percent women reported age where the mismatch is more than three years. In Gujarat the total mismatch is 58 percent out of which in 12 percent cases, the mismatch is more than three years. Matching in reporting of age of the husband by wife and husband himself is almost 36 percent in Maharashtra and 35 percent in Goa. In the southern region, in 54 percent cases, women's reporting of age mismatches with husband's reporting . In Karnataka matching is only 29 percent whereas it is 59 percent in Andhra Pradesh.

Table 3 shows the mismatch in reporting of age of the husband as reported by wife and husband himself by background characteristics in India. In this table it is found that mismatch is slightly higher among the women whose marital duration is 10-20 years (59 percent) in comparison with those who are recently married. The mismatch is less among couples who have married only once. Among the couples who are married more than once, mismatch in reporting of age of more than three years is almost 23 percent as compared to 15 percent for the couples who are married only once. Place of residence has no effect on the mismatch. With the increase in education of women, mismatch in reporting the age of the husband has declined. For example for the illiterate women matching is 42 percent, whereas for higher educated women, matching is 47 percent. Husband's education has negative effect on the matching of the reporting of husband's age by wife. Matching of husband age as reported by wife is slightly higher for the Muslim women as compared to the Hindus. Among the scheduled caste, mismatch is 60 percent; among the schedule tribe it is 50 percent; among the other backward class mismatch is 61 percent and among the higher caste, mismatch is 58 percent. But mismatch of husband's age higher by greater than 3 years is highest for the schedule caste (11.21 percent). Matching of age are reported to higher among women who live in nuclear families than those who live extended or joint families. Among the poor class women, matching is almost 43 percent whereas it is 40 percent for the rich class women. The matching of age reporting is higher among women who have full mass media exposure as compared to women who have either no exposure or partial exposure to the mass media. However, the mismatch of age more than three years is almost 20 percent

for the women who have no exposure to mass media and only 8 percent for the women who have full exposure to mass media.

Table 3: Mismatch in age of husband as reported by both the wife and husband by background characteristics in India

Background Characteristics	Both reported same	Wife reported husband's age lower by less than equal to three years	Wife reported husband's age lower by greater than three years	Wife reported husband's age higher by less than equal to three years	Wife reported husband's age higher by greater than three years	Total
Marital Duration						
< 10 years	42.2	25.3	6.0	20.4	6.2	15490
10-20	40.9	21.3	8.7	19.2	9.8	15359
20+	42.0	21.0	7.4	19.1	10.6	11333
Marriage Type						
Only once	42.0	22.7	7.0	19.8	8.5	39292
More than once	37.2	23.0	12.1	16.9	10.8	2892
Place of Residence						
Urban	41.9	26.2	6.9	20.0	5.0	13726
Rural	41.6	21.0	7.6	19.5	10.5	28456
Education of Wife						
No education	41.9	18.5	8.4	18.4	12.8	19733
Primary	42.5	21.9	7.2	21.0	7.5	6404
Secondary	39.9	27.8	6.7	21.1	4.5	13489
Higher	46.6	29.9	3.6	17.9	2.0	2560
Education of Husband						
No education	46.4	15.8	7.9	16.4	13.5	10266
Primary	43.1	20.0	8.0	19.1	9.8	8568
Secondary	38.3	25.8	7.2	21.7	7.0	18586
Higher	42.0	30.0	5.7	19.3	3.0	4755
Religion						
Hindu	41.3	23.0	7.2	19.8	8.7	34764
Muslim	42.3	20.7	8.5	19.3	9.2	5048
Others	45.6	22.7	6.7	17.4	7.6	2371
Caste						
Scheduled caste	40.4	21.5	7.7	19.2	11.2	8029
Scheduled tribe	50.1	16.4	6.5	15.7	11.2	3845
Other backward class	39.3	23.6	7.6	20.9	8.7	16416
None of them	42.5	24.3	7.1	19.8	6.4	12582
Household structure						
Nuclear	42.6	22.0	7.9	18.5	9.1	22292
Non nuclear	40.6	23.5	6.8	21.0	8.2	19462
Wealth Index						
Poor	43.3	17.9	8.0	18.0	12.8	16015
Middle	41.2	22.7	7.5	19.7	8.9	8539
Rich	40.4	26.9	6.7	21.0	4.9	17629
Mass Media Exposure						
No Exposure	42.1	18.3	8.4	18.8	12.4	16161
Partial Exposure	41.1	24.8	6.9	20.4	6.8	22777
Full Exposure	43.3	29.7	5.5	18.4	3.1	3244
Total	**41.7**	**22.7**	**7.4**	**19.6**	**8.7**	**42182**

Variation in mismatch in reporting age of husband: A logistic regression analysis

To find out the controlled effect of socio-economic, demographic and region variables on mismatch of husband's age reported by wife and husband himself, logistic regression analysis is carried out in which the mismatch (if women reported husband's age different from that of the husband) is taken as the dependent variable(Table 4). For the present study, two logistic models have been carried out. In the first model, we have taken only the socio-economic and demographic variables as independent variables. In second model, in addition to the socio-economic and demographic variables, we have also included state variables(each state as an independent variable) to find out the regional variation in the pattern of mismatch.

In case of India, mismatch is higher among the couples who have married 10-20 years before the survey as compared to those who are married recently(less than ten years). Likelihood of mismatch in age reporting is almost 18 percent higher among the couples who are married more than one times than those who are married only once. In urban areas, 15 percent women are less likely to misreport their husband's age in comparison to women in rural areas. Education of wife has negative effect on mismatch of age reporting. However, husband's education has positive effect on mismatch; mismatch is almost 17 percent higher among women having educated husband. As compared to Hindus, mismatch is 24 percent less in other religions. Among other backward class(OBC), 20 percent more women misreported their husband's age as compared to women of SC/ST category. Odds of having mismatch is higher among the women who lived in the joint families as compared to the women who lived in nuclear families. Wealth has a positive and significant effect on mismatch. After controlling all other socio economic variables, it is found that states also have significant effect on mismatch in reporting of age and there is wide spatial variation among the states. As compared to Uttar Pradesh and Uttaranchal, odds of having mismatch is less among all the states under consideration. In comparison with Uttar Pradesh, mismatch in reporting of age is 31 percent less in Punjab and Haryana, 72 percent less in Rajasthan, 60 percent less in Madhya Pradesh and Chhattisgarah, 31 percent less in Bihar, 70 percent less in Orissa, 61

Table 4: Variation in mismatch in reporting age of husband: A logistic regression analysis

Explanatory Variables	Exp(B)	
	Model 1	Model 2
Marital Duration		
< 10 years®		
10-20	1.070***	1.035
20+	1.034	.987
Marriage Type		
Only once®		
More than once	1.153***	1.182***
Place of Residence		
Rural®		
Urban	.872***	.854***
Education of Wife		
Upto Primary®		
Primary and above	.940**	.970
Education of Husband		
Upto Primary®		
Primary and above	1.222***	1.171***
Religion		
Hindu®		
Muslim	1.049	1.006
Others	.565***	.760***
Caste		
Scheduled caste/Scheduled tribe®		
Other backward class [OBC]	1.205***	1.043
Others	.995	.993
Household structure		
Nuclear®		
Non nuclear	1.080***	.996
Wealth Index		
Poor®		
Middle	1.010	1.132***
Rich	1.025	1.116***
Mass Media Exposure		
No Exposure®		
Exposure	1.034	.962
States		
Uttar Pradesh and Uttaranchal®		
Punjab and Haryana		.690***
Rajasthan		.287***
Madhya Pradesh and Chhattisgarh		.407***
Bihar		.693***
Orissa		.305***
West Bengal		.399***
Assam		.299***
Gujarat		.465***
Maharashtra		.582***
Andhra Pradesh		.267***
Kerala		.364***
Karnataka		.832***
Tamil Nadu		.516***
Other states		.246***

Note: Dependent Variable: 0- Matching in reporting of age of the husband
1- Mismatch in reporting age of the husband

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

® Reference category

percent less in West Bengal, 71 percent less in Assam, 54 percent less in Gujarat, 42 percent less in Maharashtra, 74 percent less in Andhra Pradesh, 64 percent less in Kerala, 17 percent less in Karnataka and 49 percent less in Tamil Nadu.

Summary and conclusion

Age is one of the basic and very important demographic information collected in almost all types of surveys throughout the world. Most of the demographic and health indictors in fertility, mortality, morbidity , contraceptive use etc. is based on the basis of reporting of the eligible women mostly who are in the reproductive age span(15 to 49 years). The present study analyses the extent of mismatch in the reporting of the husband's age as reported by by the wife and the husband himself. In this study we have used the data of the National Family Health Survey-3 (NFHS-3). NFHS-3 collected information from 42185 ever married couples. In the present paper, the data analysis has been done using the information of all the couples(ever married as well as currently married couples). Information about the age of the husband is collected separately from two sources namely from the husband himself as well as from the wife. Level of education of the couples plays an important role in the extent of mismatch in reporting of the age of the husband. Among the illiterate couples, mismatch in reporting of age by the husband and wife is found in more than half of the (55 percent) cases and 56 percent mismatch among the cases where husband is illiterate and wife is primary or below secondary educated. We find that in India only in 42 percent of the cases, both the wife and the husband reported same about the age of the husband. In other words, the proportion of mismatch in reporting the age of the husband is about 58 percent. Again there is lots of regional variation in the extent of mismatch in age reporting across different states of India. In case of India, mismatch is higher among the couples who have married 10-20 years before the survey as compared to those who are married recently(less than ten years). There is improvement in age reporting over the time. In urban areas, the odds of mismatch in reporting age of the husband is less in comparison with women in rural areas. The above findings has some policy implications as far as reliability in the age reporting of the couples is concerned as the mismatch in reporting of the age of the husband by the wife is highly significant. As most of the demographic and health indicators are based on the basis of the wife's reporting, the above study suggests a rethinking about the reliability of such estimates.

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