

Age, education and caste differences among couples and their impact on fertility in India

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Objectives

There are two major objectives of the present study.

1. To study the age, education and caste differences among the couples in India.
2. To analyse the impact of age, education and caste differences among couples on their fertility.

Data and Methods

The present study is based on the data of National Family Health Survey-3(NFHS-3, 2005-06) of India. The third National Family Health Survey(NFHS-3) was conducted during 2005-06. This is a nationwide survey conducted with a representative sample of households throughout the country. NFHS-3 collected information from a sample of 109,041 households covering 124,358 women age 15-49 and 74,369 men age 15-54. The survey covers 99 percent of India's population living in all 29 states. The couple file of NFHS-3 has been used for the analysis of the data. NFHS-3 collected information from 42185 currently married couples. But for our present analysis, we have used the data of 39292 couples who are married only once while analyzing children ever born and ideal family size. For the analysis of desire for additional child, data of 5380 couples who married only once and have 2 living children has been used. The information about total children ever born, ideal family size and desire for additional child is collected separately for both husband and wife using different questionnaires. For the present analysis, information provided by the women has been used and has been considered as the basis of analysis.

Both bivariate and multivariate analysis has been used for the analysis. For bivariate analysis, children ever born(0-2, 3-4, 5 and above) and ideal family size(0-2, 3-4, 5 and above) have been divided into three categories. For the analysis of desire for additional

child, it is divided into two categories - desire a child and do not desire any child. In order to examine controlled effect of age difference, education difference and caste difference on fertility, three fertility indicators namely children ever born, ideal family size and desire for additional child have been taken into consideration for analysis. Both linear and logistic regression analysis have been carried out. In linear regression we have taken children ever born as a dependent variable. For the logistic regression of ideal family size, we have taken it as a dichotomous variable (0- ideal family size more than two and 1- ideal family size up to 2). Similarly the desire for any additional child has been taken as the dependent variable in the logistic regression analysis (0-want no more child and 1-want additional child). Independent variables are age difference, education difference, caste difference (women marry men of same caste, women marry men of higher caste and women marry men of lower caste), marital duration (< 10 year, 10-20 years and 20+ years), place of residence (urban and rural), education of wife (no education, primary, secondary and higher), religion (Hindu, Muslim and others), caste (SC, ST, OBC and others), wealth (poor, middle and rich) and all major states (Uttar Pradesh and Uttaranchal, Punjab and Haryana, Rajasthan, Madhya Pradesh and Chhattisgarh, Bihar and Jharkhand, Orissa, West Bengal, Assam, Gujarat, Maharashtra, Andhra Pradesh, Kerala, Karnataka, Tamil Nadu and others).

Table 1: Percentage distribution of children ever born by background characteristics, India

Background characteristics	Children ever born			Total
	0-2	3-4	5+	
Marital duration				
< 10 years	83.0	16.0	1.0	14575
10-20	37.0	43.1	19.8	14217
20+	19.4	42.6	38.0	10500
Place of residence				
Rural	44.7	34.6	20.8	26260
Urban	58.8	29.7	11.5	13031
Education of wife				
No education	30.5	38.6	31.0	17852
Primary	47.7	39.0	13.3	5930
Secondary	68.8	26.5	4.7	12995
Higher	87.6	11.6	0.8	2514
Education of husband				
No education	32.2	36.6	31.2	9220
Primary	40.4	37.9	21.7	7854
Secondary	56.0	31.9	12.1	17589
Higher	73.9	21.1	5.0	4622
Religion				
Hindu	50.1	33.2	16.7	32466
Muslim	39.9	32.0	28.1	4612
Others	58.2	30.8	11.0	2213
Caste				
Scheduled caste	44.3	33.8	21.9	7413
Scheduled tribe	42.3	34.0	23.7	3394
Other backward class [OBC]	46.5	34.6	18.9	15316
Others	58.2	30.2	11.7	11938
Household structure				
Nuclear	41.5	37.2	21.3	20559
Non nuclear	57.6	28.5	14.0	18335
Wealth index				
Poor	37.5	34.9	27.6	14478
Middle	46.7	35.7	17.7	7965
Rich	60.9	30.0	9.1	16848
Total	49.4	32.9	17.7	39291

Table 2: Percentage distribution of children ever born by age difference between couples in India

Age difference between couples	Children ever born			Total
	0-2	3-4	5+	
Wife is older by 1 to 15 years	38.1	34.5	27.4	2032
Wife is Younger by 0-4 years	48.5	32.6	18.9	15566
Wife is Younger by 5-9 years	50.5	33.3	16.2	16287
Wife is Younger by 10+ years	52.6	32.3	15.1	5407
Total	49.4	32.9	17.7	39292

Table 3: Percentage distribution of children ever born by education difference between couples, India

Education difference between couples	Children ever born			Total
	0-2	3-4	5+	
Wife is higher educated by 2-16 years	68.7	25.5	5.8	5273
Both are almost same educated	47.0	31.7	21.3	15288
Wife is less educated by 2-5 years	50.7	34.1	15.2	11189
Wife is less educated by 6+ years	38.7	39.0	22.3	7534
Total	49.4	32.9	17.7	39284

Table 4: Percentage distribution of children ever born by caste difference between couples, India

Caste difference between couples	Children ever born			Total
	0-2	3-4	5+	
Both of same caste	49.2	32.9	17.9	33474
Wife lower caste	49.7	33.6	16.7	2003
Wife higher caste	50.5	34.0	15.5	2169
Total	49.3	33.0	17.7	37646

Table 5: Variation in children ever born: A linear regression analysis

Explanatory variables	Regression coefficient	
	Model 1	Model 2
Age difference	-.023***	.004**
Education difference	.067***	.018***
Caste difference		
Women marry men of same caste®		
Women marry men of higher caste	-.044	-.140***
Women marry men of lower caste	-.106**	.118***
Marital duration		
< 10 years®		
10-20		1.527***
20+		2.423***
Place of residence		
Rural®		
Urban		-.011
Education of wife		
No education®		
Primary		-.231***
Secondary		-.336***
Higher		-.431***
Education of husband		
No education®		
Primary		-.195***
Secondary		-.355***
Higher		-.583***
Religion		
Hindu®		
Muslim		.742***
Others		.272***
Caste		
Others®		
Scheduled Caste		.311***
Scheduled Tribe		.455***
Other backward class		.190***
Wealth index		
Poor®		
Middle		-.186***
Rich		-.386***
States		
Uttar Pradesh and Uttaranchal®		
Punjab and Haryana		-.587***
Rajasthan		-.312***
Madhya Pradesh and Chhattisgarh		-.564***
Bihar and Jharkhand		-.216***
Orissa		-.867***
West Bengal		-1.060***
Assam		-.750***
Gujarat		-.572***
Maharashtra		-.731***
Andhra Pradesh		-1.002***
Kerala		-1.147***
Karnataka		-.951***
Tamil Nadu		-1.105***
Other states		-.474***

Note: Dependent Variable: Children ever born

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

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Table 6: Percentage distribution of ideal family size by background characteristics, India

Background characteristics	Ideal family size			Total
	0-2	3-4	5+	
Marital duration				
< 10 years	78.1	21.3	0.6	14424
10-20	66.2	31.7	2.1	13961
20+	54.9	41.8	3.3	10164
Place of residence				
Rural	61.9	35.8	2.3	25704
Urban	79.3	19.8	0.9	12845
Education of wife				
No education	49.2	47.3	3.4	17331
Primary	72.0	27.1	0.9	5847
Secondary	85.3	14.3	0.5	12866
Higher	94.9	4.9	0.2	2504
Education of husband				
No education	49.0	46.8	4.2	8938
Primary	62.1	35.9	2.0	7681
Secondary	74.3	24.7	1.0	17331
Higher	88.5	11.2	0.3	4589
Religion				
Hindu	69.8	28.9	1.3	31975
Muslim	48.2	46.7	5.1	4428
Others	76.4	20.8	2.8	2145
Caste				
Scheduled caste	64.8	33.6	1.6	7285
Scheduled tribe	49.4	45.6	4.9	3309
Other backward class [OBC]	65.3	33.0	1.7	15057
Others	78.2	20.6	1.3	11708
Household structure				
Nuclear	66.0	31.9	2.2	20138
Non nuclear	69.3	29.1	1.5	18019
Wealth index				
Poor	51.7	45.0	3.2	14174
Middle	67.8	30.6	1.6	7815
Rich	81.2	18.0	0.8	16559
Total	67.7	30.5	1.8	38548

Table 7: Percentage distribution of ideal family size by age difference between couples, India

Age difference between couples	Ideal family size			Total
	0-2	3-4	5+	
Wife is older by 1 to 15 years	57.9	39.6	2.5	1979
Wife is Younger by 0-4 years	64.2	34.0	1.7	15245
Wife is Younger by 5-9 years	70.1	27.8	2.0	16030
Wife is Younger by 10+ years	73.8	24.8	1.4	5295
Total	67.7	30.5	1.8	38549

Table 8: Percentage distribution of ideal family size by education difference between couples, India

Education difference between couples	Ideal family size			Total
	0-2	3-4	5+	
Wife is higher educated by 2-16 years	83.4	15.9	0.8	5223
Both are almost same educated	63.5	33.9	2.7	14922
Wife is less educated by 2-5 years	70.9	27.7	1.5	11019
Wife is less educated by 6+ years	60.4	38.1	1.5	7377
Total	67.7	30.5	1.8	38541

Table 9: Percentage distribution of ideal family size by caste difference between couples, India

Caste difference between couples	Ideal family size			Total
	0-2	3-4	5+	
Both of same caste	67.4	30.7	1.9	32895
Wife lower caste	70.7	27.9	1.4	1954
Wife higher caste	71.3	27.4	1.2	2106
Total	67.8	30.4	1.8	36955

Table 10: Variation in ideal family size: A logistic regression analysis

Explanatory variables	Exp(B)	
	Model 1	Model 2
Age difference	1.045***	1.005
Education difference	.944***	1.009**
Caste difference		
Women marry men of same caste®		
Women marry men of higher caste	1.141**	1.347***
Women marry men of lower caste	1.235***	.950
Marital duration		
< 10 years®		
10-20		.562***
20+		.373***
Place of residence		
Rural®		
Urban		1.105***
Education of wife		
No education®		
Primary		1.531***
Secondary		2.368***
Higher		4.870***
Religion		
Hindu®		
Muslim		.261***
Others		.458***
Caste		
Others®		
Scheduled Caste		.668***
Scheduled Tribe		.325***
Other backward class		.728***
Wealth index		
Poor®		
Middle		1.351***
Rich		1.870***
States		
Uttar Pradesh and Uttaranchal®		
Punjab and Haryana		2.835***
Rajasthan		1.076
Madhya Pradesh and Chhattisgarh		1.419***
Bihar and Jharkhand		1.085
Orissa		2.119***
West Bengal		6.132***
Assam		2.109***
Gujarat		1.966***
Maharashtra		3.084***
Andhra Pradesh		3.415***
Kerala		1.593***
Karnataka		4.110***
Tamil Nadu		7.958***
Other states		.900***

Note: Dependent variable : Ideal family size(0- Ideal Family size 2 and above, 1- Ideal family size upto 2)

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

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Table 11: Percentage distribution of desire for addition child by background characteristics

Background characteristics	Desire for additional child		Total
	No	Yes	
Marital duration			
< 10 years	63.3	36.7	2865
10-20	83.0	17.0	1918
20+	92.0	8.0	598
Place of residence			
Rural	66.8	33.2	3182
Urban	83.3	16.7	2198
Education of wife			
No education	54.2	45.8	1634
Primary	71.9	28.1	736
Secondary	82.0	18.0	2379
Higher	93.3	6.7	631
Education of husband			
No education	54.4	45.6	866
Primary	64.3	35.7	788
Secondary	76.0	24.0	2661
Higher	89.6	10.4	1064
Religion			
Hindu	74.7	25.3	4263
Muslim	61.0	39.0	707
Others	82.4	17.6	409
Caste			
Scheduled caste	65.3	34.7	919
Scheduled tribe	59.6	40.4	416
Other backward class [OBC]	69.3	30.7	1727
Others	83.1	16.9	2095
Household structure			
Nuclear	75.5	24.5	2608
Non nuclear	72.0	28.0	2693
Wealth index			
Poor	56.6	43.4	1522
Middle	67.5	32.5	911
Rich	84.1	15.9	2947
Total	73.5	26.5	5380

Table 12: Percentage distribution of desire for addition child by age difference between couples, India

Age difference between couples	Desire for additional child		Total
	No	Yes	
Wife is older by 1 to 15 years	73.9	26.1	257
Wife is Younger by 0-4 years	71.2	28.8	2143
Wife is Younger by 5-9 years	73.5	26.5	2227
Wife is Younger by 10+ years	79.9	20.1	753
Total	73.5	26.5	5380

Table 13: Percentage distribution of desire for addition child by education difference between couples, India

Education difference between couples	Desire for additional child		Total
	No	Yes	
Wife is higher educated by 2-16 years	78.0	22.0	790
Both are almost same educated	73.0	27.0	2081
Wife is less educated by 2-5 years	77.0	23.0	1628
Wife is less educated by 6+ years	64.1	35.9	880
Total	73.5	26.5	5379

Table 14: Percentage distribution of desire for addition child by caste difference between couples, India

Caste difference between couples	Desire for additional child		Total
	No	Yes	
Both of same caste	73.9	26.1	4542
Wife lower caste	67.6	32.4	253
Wife higher caste	71.3	28.7	300
Total	73.4	26.6	5095

Table 15: Variation in the desire for addition child: A logistic regression analysis

Explanatory variables	Exp(B)	
	Model 1	Model 2
Age difference	.983**	.990
Education difference	1.030***	.984
Caste difference		
Women marry men of same caste®		
Women marry men of higher caste	1.201	1.013
Women marry men of lower caste	1.066	1.233
Marital duration		
< 10 years®		
10-20		.411***
20+		.120***
Place of residence		
Rural®		
Urban		.867*
Education of wife		
No education®		
Primary		.754**
Secondary		.535***
Higher		.261***
Religion		
Hindu®		
Muslim		2.165***
Others		1.632***
Caste		
Others®		
Scheduled Caste		1.718***
Scheduled Tribe		2.216***
Other backward class		1.428***
Wealth index		
Poor®		
Middle		.731***
Rich		.558***
States		
Uttar Pradesh and Uttaranchal®		
Punjab and Haryana		.545***
Rajasthan		1.359
Madhya Pradesh and Chhattisgarh		.652**
Bihar and Jharkhand		.943
Orissa		.779
West Bengal		.379***
Assam		.392***
Gujarat		1.000
Maharashtra		.758**
Andhra Pradesh		1.646***
Kerala		2.073**
Karnataka		1.235
Tamil Nadu		.504***
Other states		.899

Note: Dependent variable: Desire for additional child, (0- Want no more child, 1-want additional child)

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

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