

Rural-Urban Differential of Contraceptive Knowledge among Unmarried Women in India

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Abstract

A large number of girls get marriage at very young age and immediately are exposed to the risk of bearing children in India. Many marriages in India are celebrated well before the legal age has pointed out as 34 percent of the adolescent girls aged 15-19 years. The objective of this is to examine the rural urban differential and determinant of knowledge of family planning methods in India. This study utilize data obtained from third round of the District Level Household Survey (DLHS) which is conducted in 2007-08 in 601 districts from 34 states and union territories of India. DLHS-3 was conducted by the International Institute for Population Sciences Mumbai under the stewardship of the Ministry of Health and Family Welfare, Government of India. The study uses bivariate absolute difference, relative difference and multivariate techniques to understand the knowledge of family planning methods among unmarried youth women living in rural as well as urban area of India. Multivariate statistical techniques like multinomial logistic regression have been applied to examine the predictor of knowledge of family planning methods. The result show that near about 69 percent women who belonging to age group 20-24 having knowledge of modern methods. However 28 percent women know traditional methods. Those women are unaware of family life education had more knowledge of modern methods. However, awareness of traditional method was significantly low among them. Scheduled tribe women had more knowledge of traditional methods compared to schedule caste and others. Rich women had significantly more knowledge of modern and traditional methods compared to poor women in the study area. Correct Knowledge of Contraceptive use will help to reduce unwanted pregnancies as well as abortions, maternal and neonatal morbidity and mortality.

Keywords: Contraception; Knowledge; Unmarried women; Rural; Urban

Introduction

In India very high proportion of girls gets married at very young age and immediately are exposed to the risk of bearing children. Many marriages in India are celebrated well before the legal age. Jejeebhoy has pointed out as 34 percent of the

adolescent girls aged 15-19 years in India are already married and presumably sexually active, while fewer than 10 percent of unmarried girls are reported to be sexually experienced. Further, current scenario suggest that stopping marriages before legal age has no easy solution. However, certain maladies arising out of early marriages can be minimized to certain extent by providing proper knowledge of family planning methods. Many a times women shy away from using contraception mainly because they lack knowledge and are afraid of sterilization; copper T or pills does not suit them; or injection is not available etc. thus they have to carry the burden of unwanted pregnancies or go for abortion which is mainly unsafe [1].

The youth population in the age group 15–24 years constituted almost 189 million, representing 18% of the Indian population in 2001 and this number is projected to increase to 238 million by 2016 (RGI 2006). Not only does this group represent India's future in the socio-economic and political realms, but also its experiences will largely determine India's achievement of its goal of population stabilisation and the extent to which the nation will be able to harness its demographic dividend. In the course of transition to adulthood, young people face significant risks related to sexual and reproductive health, and many lack the knowledge and power to make informed sexual and reproductive choices (IIPS and Population Council 2010).

Zwicker and Ringheim studied that young women are particularly at risks related to sexual and reproductive health. Adolescent women in countries most affected by HIV/AIDS are two to six times more likely to become infected with HIV than their male counterparts. Some estimates Mathur exposed that 50 to 75 percent of women in India are married during adolescence and thus require knowledge about contraception. In addition, young women experience high rates of unintended pregnancy with about 15 million teenage women giving birth each year.

Many studies have shown that the knowledge about contraception among ever-married women is almost universal in India (IIPS and Macro International 2007). However, there is no evidence on knowledge of contraception among unmarried young women. Given fact that unmarried young women also have opportunities to mix and to get engaged in premarital sexual activities, I cannot ignore the importance of knowledge

and awareness about contraception among this group of women. Moreover, knowledge about contraception would facilitate use of appropriate method to delay, space, or limit children within marriage. Therefore, it is important to understand the knowledge of contraception among unmarried young women in India. The focus of this study is on rural as well urban women as their needs and circumstances. Therefore it can explore how a rural women's knowledge about family planning methods is differs from urban women [2].

Objective of the study

The aim of this study is to examine the rural urban differential and determinant of knowledge of family planning methods in India.

Data and Methods

This study utilize data obtained from third round of the District Level Household Survey (DLHS) which is conducted in 2007-08 in 601 districts from 34 states and union territories of India. DLHS-3 was conducted by the International Institute for Population Sciences Mumbai under the stewardship of the Ministry of Health and Family Welfare, Government of India. The DLHS- 3 was designed to provide estimates on maternal and child health, family planning and other reproductive health indicators at the district level (IIPS 2010). DLHS-3 also provides information related to the programmes under the National Rural Health Mission (NRHM). The main instrument for collection of data in DLHS-3 was a set of structured questionnaires, namely, household, ever married women, unmarried women and village questionnaires. In addition, DLHS-3 also integrated the Facility Survey of health institution (Sub centre, Primary Health Centre, Community Health Centre and District Hospital) accessible to the sampled villages. In total 643 944 ever married women aged 15-49 years and 166 260 unmarried women aged 15-24 years were interviewed in the survey [3].

The study uses bivariate absolute difference, relative difference and multivariate techniques to understand the knowledge of family planning methods among unmarred youth women living in rural as well as urban area of India. Multivariate statistical techniques like multinomial logistic regression have been applied to examine the predictor of knowledge of family planning methods.

Dependent variable

Knowledge of family planning methods has been classified into three categories which is Modern method, Traditional method and any method of family planning.

Independent variables

Age group, education, caste, religion, wealth index, family life education

Multinomial logistic regression analysis

A multinomial logistic regression analysis is the most appropriate technique in a situation where the dependent

variable is categorical and has more than two outcomes. The model permits the study of the effect of a unit change in the independent variable on the dependent variable considering the simultaneous effects of several variables.

A multinomial logistic regression model is generalization of binary (or logistic) regression model. In the binary model, a binary outcome (0 or 1) of events is modelled. If p is the probability of outcome being one, then the model specifies

Where b_k represent the coefficients of each of the predictor variables included in the model, while e_k is an error term. $\ln\{p/(1-p)\}$ represents the natural logarithm of the odds of the outcome. We have estimated the adjusted percentage for the multinomial logit model by using STATA Software. Most convenient way to represent the effects of the predictor variable on p is in the form of an MCA table. To measure of goodness of fit pseudo R square is used in multinomial logit regression [4,5].

Results

Background characteristics

Table 1 shows the background characteristics of unmarried women in India. Results revealed that 73 percent unmarried women lie between age group 15-19 years and 37 percent lies between 20-24 years in India. It is also seen that proportion of unmarried women of aged 15-19 was higher in rural area (77%) compare to urban area (69%). However proportion of unmarried women aged 20-24 was higher in urban area (31%) than rural area (23%). Proportion of primary and above education of unmarried women reported 94 percent in the study area. This proportion is higher in urban area (97%) compare to rural area (92%). It is found that about 73 percent unmarried women were aware about in family life education/sex education. Urban women (78%) were more aware as compared to rural women (69%). A large number of women belonged to Hindu (69%) followed by Muslim (17%) and others religion (15%) in India. The same pattern found in rural and urban areas. The proportion of women belonging to scheduled Caste (16%) and scheduled Tribe (18%) were low compared to others caste (66%). However, this pattern depicted higher in rural area than urban area in the study.

Background Characteristics	Rural	Urban	Total
Age group			
15-19	76.82	69.1	73.34
20-24	23.18	30.9	26.66
Education			
Below Primary	7.74	3.36	5.71
Primary & Above	92.26	96.64	94.29
Family Life Education			
No	30.63	21.93	26.72
Yes	69.37	78.07	73.28

Religion			
Hindu	69.27	67.68	68.55
Muslim	12.17	21.78	16.5
Others	18.56	10.54	14.95
Caste			
Scheduled Caste	16.75	14.97	15.94
Scheduled Tribe	24.95	8.74	17.64
Others	58.3	76.29	66.41
Wealth Index			
Poor	33.53	4.6	20.51
Non-poor	66.47	95.4	79.49
Total	121569	44691	166260

Table 1: Background characteristics of unmarried women in India, 2007-08.

Awareness of family planning methods

Table 2 shows that the awareness about type of family planning methods among unmarried women by place of residence in India. About 90 percent and 65 percent of unmarried women were aware about female and male sterilization. Urban women were more aware about female and male sterilization than rural women. Awareness of IUD and PILL were 53 percent and 79 percent. Only 30 percent and 43 percent unmarried women were aware about Emergency Contraceptive and Injectable. It is found that all women (100%) were aware about female condom. However, 70 percent women knew the male condom. Only 17 percent and 9 percent women knew the Rhythm and Withdrawal Methods in the study.

Awareness of FP Methods	Rural	Urban	Total
Female Sterilization	87.9	91.4	89.5
Male Sterilization	61.4	70.1	65.3
IUD	47.4	59	52.6
PILL	75.4	82.3	78.5
Emergency Contraceptive	24	38.2	30.4
Injectable	39	48.5	43.3
Male Condom	65.2	76.3	70.2
Female Condom	100	100	100
Rhythm Method	15.6	19.5	17.4
Withdrawal Method	8.2	9.7	8.9

Other way	1.1	1.3	1.2
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Table 2: Awareness about type of family planning methods among unmarried women by place of residence in India, 2007-08.

Differentials of knowledge of family planning methods

Table 3 presents the rural urban differentials of knowledge of family planning methods in India. Rural urban absolute difference and relative difference of contraceptive knowledge of any methods found 2.4 and 1.03. The same result had been seen in case of contraceptive knowledge of modern method. However, absolute difference and relative difference of traditional methods is 3.5 and 1.20 respectively.

Contraceptive method	Rural	Urban	Absolute difference	relative difference
Modern method	92.5	94.9	2.4	1.03
Traditional method	17.6	21.1	3.5	1.2
Any method	92.6	94.9	2.4	1.03

Table 3: Rural urban differential of knowledge of family planning method in India, 2007-08.

States-wise rural-urban differentials of knowledge of modern and traditional methods

Figure 1 presents the rural urban differential of knowledge of modern method of family planning by states wise in India. Line diagram showed higher knowledge of contraception in the rural area of some state like Jammu & Kashmir, Jharkhand, Orissa, Chhattisgarh.

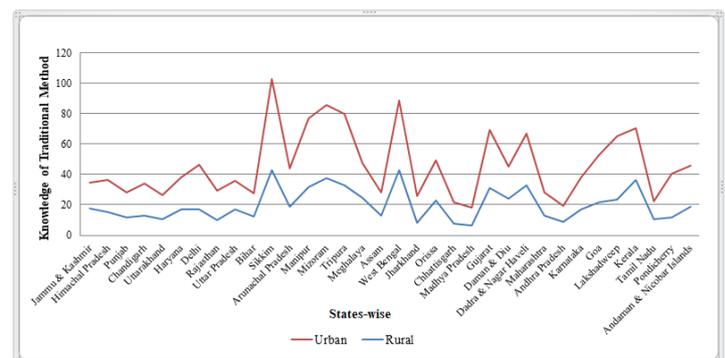


Figure 1: State-wise rural urban differential of knowledge of modern method of family planning in India, 2007-08.

Figure 2 reveals the rural urban differential of traditional methods of family planning by state wise in India. Line diagram showed unmarried youth women in rural area had less knowledge of traditional method as compare of urban youth. This study shows knowledge of traditional methods was highest in Sikkim as compared to remaining state of India. One

interesting result is in Meghalaya that traditional method was high in rural area as compared to urban area.

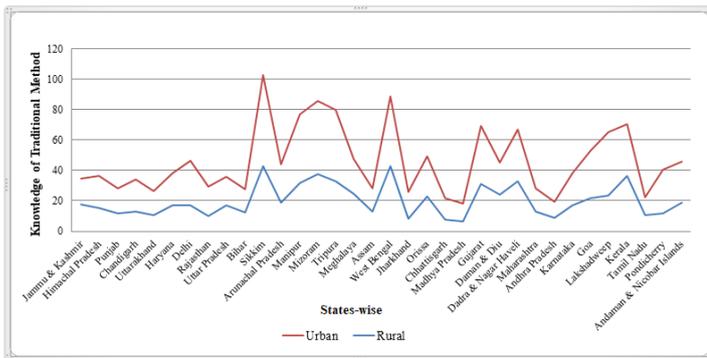


Figure 2: State-wise rural urban differential of knowledge of traditional method of mamilly planning in India, 2007-08.

State-wise absolute rural urban differential of knowledge of family planning methods

Figure 3 presents the absolute of modern and traditional methods by state wise. Results represent that absolute difference of modern methods in maximum states were either four or less than four. But this difference was the highest in Jharkhand (16.7) and Dadra & Nagar Haveli (9.5). Absolute difference of traditional methods was not smooth. Absolute difference of traditional methods in Jammu and Kashmir is only 0.2. This may be communication or mass media exposure among unmarried women is good about the family planning. The absolute knowledge of traditional methods was found to be higher in Lakshadweep (18.5), Pondicherry (17.5), and Tripura (13.5) as compared to others states of India. There may be communication gap about traditional methods [6,7].

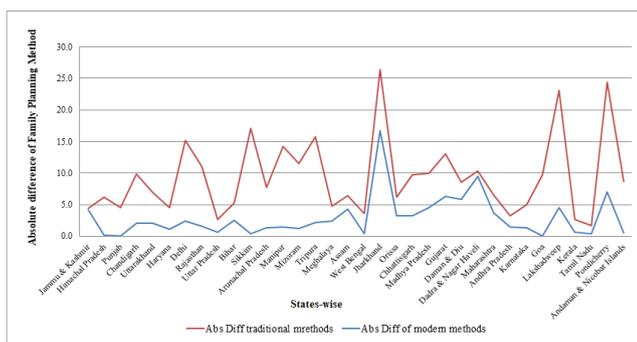


Figure 3: State-wise absolute rural urban differential of knowledge of family planning method in India, 2007-08.

Determinant of knowledge of family planning methods

To understand the correlates of knowledge of family planning methods among unmarried youth women, a multinomial logistic regression model has been used considering that dependent variable is categorical having more than two categories. The dependent variable has been categorized into three categories, namely, not know any method, modern methods and traditional methods. Not know using methods is coded as '0', modern method is coded as '1' and traditional method is coded as '2'.

Table 3 presents the results of multinomial logistic regression in terms of adjusted percentage

Results indicate that the about 69 percent women who belonged to age group 20-24 years had significantly knowledge of using modern methods. However, 28 percent women had knowledge of traditional methods in the same age group. Those unmarried women who educated up to primary & above had 75 percent and 20 percent significant knowledge of modern methods and traditional methods respectively. Hindu women had more knowledge of modern methods compared to Muslim and others religious women. One interesting results show those unmarried women not aware of family life education having more knowledge of modern methods as compare to those not having family life education. This may be happen due to advertisement of family planning methods through Television or Radio. On the other hand awareness about traditional method was significantly low among who had no family life education. Knowledge of traditional method found to be 22 percent among schedule tribe unmarried youth which is higher as compared to schedule caste (17%) and others caste (19%). Rich unmarried women had significantly more knowledge of modern and traditional methods compared to poor women in the study area.

Discussion

A large number of girls get marriage at very young age and immediately are exposed to the risk of bearing children in India. Many marriages in India are celebrated well before the legal age has pointed out as 34 percent of the adolescent girls aged 15-19 years. In present study, most of the women were from the age group of 15-19 years i.e. youngest unmarried women. Most of these women had primary and above education. More than seventy percent unmarried women were aware about in family life education/sex education. This proportion was higher in urban area compared to rural area. A large number of women belonged to Hindu followed by Muslim and others religion. The proportion of Scheduled Caste and Scheduled Tribe were lower compared to others caste women. Knowledge of modern, traditional and any methods of contraceptive found to be higher in urban area compared to rural area. Awareness rate of contraceptive methods were found 82.8% and 100% in two other Indian studie. One more study was reported by Arowojolu AO. from Nigeria, where a survey of 2388 Nigerian undergraduate students showed the contraceptive knowledge level to be 87.5%. Rural urban absolute difference and relative difference of contraceptive knowledge of any methods found 2.4 and 1.03 [8,9].

Large number of unmarried women i.e. 90% knew female sterilization. However, 65% women were aware about male sterilization in India. Findings also reveal that urban women were more aware about male and female sterilization than rural women. In addition to this, Mansi Sukla found that 100% females were aware of Tubal Ligation while only 28% women were aware about Vasectomy at a tertiary care hospital in Mumbai. Awareness of IUD and PILL were 53 and 79 percent. Only 30 and 43 percent unmarried women were aware about Emergency Contraceptive and Injectable. It is found that all women i.e. 100% were aware of female condom. However, 70

percent women knew the male condom. On the other hand, only 17 percent and 9 percent women knew the Rhythm and Withdrawal i.e. traditional methods. Large number of unmarried women who belonged to age group 20-24 years had significantly knowledge of using modern methods. However, 28 percent women had knowledge of traditional methods in the same age group. In another study conducted in Nepal, by Tuladhar, 93.0% of the study population were aware of at least one of family planning methods. Up to primary & above educated women had three fourths (75%) and one fifth (20%) significant knowledge of modern and traditional methods respectively. Hindu women had more significant knowledge of modern methods compared to Muslim and others religious women. Those women are unaware of family life education had more knowledge of modern methods as counterpart. This may be happen due to advertisement of family planning methods through Television or Radio. On the other hand, awareness about traditional method was significantly low among them. Scheduled tribe women had more knowledge of traditional methods compared to schedule caste and others. Rich women had significantly more knowledge of modern and traditional methods compared to poor women in the study area [10].

Conclusion

Knowledge of contraceptive use is very essential especially young unmarried women in India. Health care providers have to ensure the spread of information regarding all the modes of contraception available these days. Motivation of the males towards the knowledge of both temporary and permanent male contraceptive measures is very necessary. Permanent contraception should be encouraged to know in both male and female to ensure better maternal and child health. Correct Knowledge of Contraceptive use will help to reduce unwanted pregnancies as well as abortions, maternal and neonatal morbidity and mortality.

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