

TITLE PAGE

Title: Does Women's age Matter in the Utilization of Health Care Services during Pregnancy?

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Extended Abstract

Does Women's age Matter in the Utilization of Health Care Services during Pregnancy?

By

Lucky Singh and Prashant Kumar Singh

Rational of the study:

As is well known, the transition to marriage occurs early in India, both for young men and women. The recent NFHS (IIPS and Macro International, 2007a) report shows that 47% of young women aged 20-24 had married before the legal age at marriage (before the age of 18 years). The marriage occurs early in most of the developing countries as well as in India. The marriage related planning occurs even earlier, often as girl reaches menarche and, in many cases, even before she reaches menarche. The early marriage is cumulated with early Pregnancy and childbearing for the adolescence women in India. The studies have shown that early childbearing is leading causes of mortality among women aged 15–19 years. Early registering of pregnancy, antenatal care and safe delivery could improve maternal outcomes.

Literature Review

The literature have documented that early childbearing is associated with adverse sexual and reproductive health outcomes. Globally, it is estimated that girls aged 15-19 years are twice more likely to die from childbirth than women in their twenties. The girls even younger than age 15 years have five times higher risk of death (UNICEF, 2001). Findings from community-based studies in India also show that adolescent girls are significantly more likely to experience maternal mortality than the older women. Community based study in rural Maharashtra found that adolescent girls were 1.6 times more likely than those women aged 20-29 years to experience maternal mortality (Ganatra, Coyaji and Rao, 1998).

Studies in India have shown that married adolescent women despite being at risk of experiencing adverse sexual and reproductive health outcomes, are likely, or even less likely to seek appropriate pregnancy related care than older the women (Reynolds, Wong and Tucker, 2006; Santhya and Jejeebhoy,2003). Even so, little is known about whether adolescent and adult mothers who experience pregnancy related complications differ in seeking timely and appropriate treatment.

Objective: The paper seeks to explore the utilization of health care services during pregnancy of teenage women compared with older women.

Situation of Adolescence in Maharashtra:

Young women aged 10-24 years constituted a total of 29.4 million, and accounted for 30% of the state's women population in 2001. The adolescent, aged 15-24 years accounted for about 19% of the state's population (Registrar General and Census Commissioner, 2001b).

The woman marries at very young age in Maharashtra. National Family Health Survey 2005 data reveals that 40% of women aged 18-29 were married by age 18. Further one in seven women in the age group of 15-19 years have begun childbearing (IIPS and Macro International, 2007b). Evidence also suggest that the knowledge of reproductive health matters are limited for Adolescent woman (IIPS and Macro International, 2007a).

Data Source and Methodology

2.1 Data source

This study uses the third Indian National Family Health Survey (NFHS-3), collected during 2005-06 to examine the differentials in the antenatal care for married adolescent women and older women. NFHS is a nationally representative household surveys that collect data on a wide range of indicators in the areas of population, health and nutrition. The question on utilization of Antenatal care was asked for the last child five years preceding the survey. The full ANC has been defined as the mothers who had minimum of three antenatal visits, had at least two tetanus toxoid injections or one TT injection during the pregnancy and at least one in the three years prior to the pregnancy and received iron and folic acid tablets for 90 days or more.

Descriptive statistics of social and demographic characteristics of women aged 15-49 years with a birth in the previous five years are obtained. Bi-variate analysis is carried out to see the relationship between women's age and the utilization of reproductive health care services. To examine the association between women's between woman's age and utilization of reproductive health care services Chi square test has been used. The survey-based logistic regression models were used to calculate odds ratios controlling for the various independent variables.

Results:

The results shows (Table 1) that the utilization of full antenatal care among women of 20-24 and 25+ age groups is 27% and 30% respectively, whereas it is only 17% among 15-19 age groups of women in Maharashtra. A much smaller proportion- one out of five – had received full antenatal care among women in 15-19 age, than the women of 25+.

The impact of age replicated more leading factor in utilization of full antenatal care, education and place of residence. The result shows that 20% of women in 15-19 years having secondary education received full antenatal care. The full ANC was received by 28% and 39% of women in the age group 20-24 and 25+ respectively having secondary education. The differentials in utilization of full antenatal care between women in three age group is less in urban areas compared to rural areas. Full ANC was sought by 14% of rural women in age 15-19 years compared to 28% and 23% women of 20-24 and 25+ years. age groups. However, in urban areas women of 25+ and 20-24 age groups 36% and 26% received full antenatal care respectively, whereas the full antenatal care received by 15-19 age groups women is 20%.

The mass media exposure increases the level of full antenatal care among women in all the age groups. The women receiving antenatal care was higher for women in older age (20-24 and 25 and above) group and was lowest for teenage mothers (20%). The effect of family structure of the household is clearly evident in the utilization of full antenatal care among women of 15-19 age groups. Women in 15-19 age group living in joined family, full antenatal care was 16% compared to women of 20-25 (30%) and 25+ (32%) age groups. The differential was also found in antenatal care by wealth quintile. The antenatal care was received by three out of five women belonging to richest wealth quintile in the age group of 15-19 years. However almost four out of five women received full antenatal care among 20-24 and 25+ age groups who belongs to higher quintile.

The differentials in the utilization of full antenatal care were also evident by caste and religion of the women. Women in 15-19 age group of general caste, utilization of full antenatal care was 14% compared to women in 20-24 (30%) age groups. Hindu women age groups 15-19, 16% received full antenatal care compared to women 20-24 (29%) and 25+ (30%) age groups.

The number of antenatal care visits and the timing of the first visit are important for the health of the mother and the outcome of the pregnancy. Studies have shown that antenatal care initiated as late as the third trimester, has substantial effect in reduction in prenatal mortality (Ramachandran, 1992). The present study explores the differential in the level of early antenatal care visit between the teenage mothers with adult women in Maharashtra. The differentials are not large between the women of three age groups. The women seeking early antenatal care was 59% for women in the age group 15-19 years compared to 63% among 67% for women in the age group 20-24 and 25+ years respectively. However, the differences are found by various socioeconomic and demographic characteristics. The higher educated women belongs to 20-25 and 25+ age groups, 15% and 20% had early antenatal care visits than the educated women in 15-19 age groups. Women who are in the age group 15-19 and having low and medium autonomy, 50% had early antenatal visit, whereas 64% women 20-24 age groups had early antenatal visit. The early antenatal visit increases with exposure to the mass media. The early antenatal care receive was 39% for women with no exposure and 69% for women with exposure in 15-19 age group. The differences even found between the age groups, 15-19 and 20-24 age groups.

Family structure of the household also affects early antenatal visits among women of 15-19 age groups. Women live in joint family, 56% had early antenatal care visits in the age group 15-19 years compared to 65% in 20-24 age groups. The differences are less between age the groups among women living in nuclear family. Women whose place of residence is rural, 12% and 8% of women age 20-24 and 25+ had antenatal care visits compared to women of 15-19 age groups. The differentials in early antenatal care are also found for caste and religion. The differences in early antenatal care visits are more evident in generals, other backward castes and among Hindu.

Table 2 presents the results of the logistic regression showing the effect of various socioeconomic and demographic variables on the likelihood of using the full antenatal care. The logistic regression analysis shows that age of the women, education of women and partner, and wealth index, are statistically significant in explaining the utilization of full antenatal care in Maharashtra.

The likelihood of full antenatal care is higher in the age groups 20-24 and 25+ than in the 15-19 years age groups of the women. Further, the odds of receiving full antenatal care among women of above 25 years is almost twice higher than the adolescent (women in the age groups 15-19 years). The study by Bhatia & Cleland (1995) on the determinants of antenatal care in India had also showed that seeking antenatal care was higher among older women than younger women. The odds of utilizing full antenatal care is two times more among educated women compared to uneducated women. Similarly, likelihood of seeking full

antenatal care is higher among those women whose partner is educated is more compared to uneducated or below primary educated.

Discussion and Conclusion:

The antenatal care is an umbrella term used to describe the procedures and care that are provided to pregnant women. The primary aim of antenatal care is to provide a safe and healthy outcome with regard to both mother and child at the end of pregnancy. However, the present finding shows that the utilization of full antenatal care is twice lower among 15-19 age group of the women compared to adult women in Maharashtra. It reflects that adolescents are at higher risk of maternal complications compared to older women in the state. The medical literature shows a large number of maternal deaths could be prevented by timely medical intervention. Good antenatal care goes a long way in reducing fatalities from complications occurring during pregnancy (Maine *et al.*, 1994). The differences by women's age in early antenatal care visits are not much evident. Also, few studies concluded that the number of antenatal care visits may not reflect the true picture (Bulatao *et al.*, 2002).

Findings reiterate the need for programmatic attention to improve the utilization of antenatal care among adolescent women in the state. The programmatic efforts to support young people, in particular, newly-weds, to postpone their first pregnancy, to create awareness among women/couple of the adverse effects of early pregnancy and to make it acceptable for young couples to adopt contraception prior to first birth. Findings underscore that few adolescents' women seek full antenatal care; the schemes such as the Janani Suraksha Yojana could have a positive effect on promoting utilization of maternal health care. The National Rural Health Mission currently under way would also need to focus on increasing the demand for as well as improving the availability of maternal health services, and must specially target adolescent mothers, particularly younger adolescent mothers.

Finding indicated that utilization of full antenatal care for young women is affected by women's educational status, partner's educational level and family structure. It is important to actively seek the participation of husbands and other influential adults in the family, who have a major say in decision related to pregnancy care, in ensuring the utilization of full antenatal care among younger women.

In conclusion, findings have highlighted that the majority of adolescent mother has limited utilization of full antenatal care in the state. Adolescent's age and physical unpreparedness for pregnancy tends to increase the pregnancy-related complications. However, multi-programmed actions are needed to promote timely and appropriate pregnancy-related care among all woman, these programs need to specially target young women, influential adults in their families and health care providers.

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Table-1 Socio-demographic Differential in Utilization of Full Antenatal Care :married adolescent compared with older women with their last child within five years before the survey, NFHS-3 (2005-06)

Background Characteristics	Women's age			Background Characteristics	Women's age		
	15-19	20-24	25+		15-19	20-24	25+
<i>Parity</i>				<i>Visited by the health provider</i>			
1-2	17.6	29.1	39.1	No	16.2	24.8	29.3
3-4	*	20.5	23.6	Yes	17.1	31.2	31.5
4+	NA	*	9.9	<i>Family structure</i>			
<i>Education of woman</i>				Nuclear	19.6	22.8	26.8
Illiterate & literate but below primary	9.2	12.9	9.4	Joint	16.0	29.9	31.9
Primary but below middle	15.9	20.6	32.5	<i>Wealth Quintile</i>			
Middle but below high school	20.2	27.9	38.7	<i>Poorest</i>	(5.0)	13.4	10.9
High school and above	25.3	40.6	43.2	Poorer	8.0	15.3	14.6
<i>Partner's education</i>				Middle	19.6	21.0	21.7
Illiterate & literate but below primary	5.4	9.0	3.7	Richer	18.3	29.2	29.2
Primary but below middle	11.7	18.0	25.7	Richest	27.2	39.0	42.4
Middle but below high school	14.3	28.1	36.0	<i>Place of residence</i>			
High school and above	24.6	35.2	40.9	Rural	14.2	27.5	22.5
<i>Autonomy</i>				Urban	20.3	26.1	35.5
Low and medium	14.7	29.0	27.8	<i>Caste</i>			
High	20.7	23.3	31.8	General	14.1	29.0	29.8
<i>Mass media</i>				SC	12.6	18.7	35.1
No exposure	4.7	12.5	6.2	ST	(13.2)	13.8	14.6
Any exposure	20.0	29.6	35.5	OBC	23.4	33.5	34.3
<i>Child loss</i>				<i>Religion</i>			
No loss	17.1	28.2	31.3	Hindu	15.7	28.1	30.8
At least one	(9.1)	14.9	21.7	Muslim	19.4	24.8	21.5
<i>Pregnancy complication</i>				Others	(19.0)	18.7	37.0
No	14.1	25.0	26.9	<i>Total</i>	16.5	26.9	29.8
Yes	20.3	29.8	33.9				

Note: () Based on 25-49 unweighted cases. * Percentage not shown, based on fewer than 25 unweighted cases. NA: Not applicable. OBC: Other backward caste. SC: Scheduled caste. ST: Scheduled tribe.

Table 2: Logistic regression (Odds ratio) on Utilisation of Antenatal care for women, Maharashtra, India NFHS-3

Background characteristics	Exp (β)	Background characteristics	Exp (β)
Age of the women		Pregnancy complication	
15-19®		No®	
20-24	1.443**	Yes	1.044
25+	1.828***	Visited by the health provider	
Parity		No®	
1-2®		Yes	1.177
3-4	0.866	Family structure	
4+	0.737	Nuclear®	
Education of woman		Joint	0.904
Illiterate & literate but below primary®		Wealth Quintile	
Primary but below middle	1.427	Poorest®	
Middle but below high school	1.565**	Poorer	0.850
High school and above	2.129***	Middle	1.097
Partner's education		Richer	1.178
Illiterate & literate but below primary®		Richest	1.852*
Primary but below middle	1.680*	Place of residence	
Middle but below high school	2.289***	Rural®	
High school and above	2.649***	Urban	0.627**
Autonomy		Caste	
Low and medium®		General®	
High	1.064	SC	0.987
Mass media		ST	1.086
No exposure®		OBC	1.052
Any exposure	1.476	Religion	
Child loss		Hindu®	
No loss®		Muslim	0.903
At least one	0.927	Others	1.073

Note: *** p<0.01; **p<0.05; *p<0.10.

® represents the Reference category;

OBC: Other backward caste. SC: Scheduled caste. ST: Scheduled tribe.