

Teenage pregnancy – A Socio-demographic study at a Rural Medical College Hospital in Southern India

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ABSTRACT

Aim: This study is aimed to analyze the socio-demographic factors of teenage pregnancy compared to adult pregnancies. **Method:** A Hospital based prospective study of all teenage pregnant females admitted to Rural Medical College Hospital in Karnataka. Data was collected by detailed history taking and following up the patient from admission till delivery by using a proforma devised for the study. For each teenage two simultaneous adults primigravidas were studied. **Result:** Most of teenage mothers (53.5%) haven't had primary education itself compared to 8.1% in adults. In the present study, majority of the population 47.5% in teenage and 72.5% in adults belonged to middle socioeconomic class (upper and lower) and 43.75% of teenage belong to low socioeconomic class compared to 15% of adults. In my study 98% of the population belonged to rural area. 61.25% of teenage mothers were booked. In present study the TT Immunization was adequate for both the groups. **Conclusion:** Teenage pregnancy is still a huge problem in India mainly related to early menarche, early age at marriage, low education, unemployment, joint family structure, lack of antenatal care. The problem of teenage pregnancy cannot be removed instead focus can be diverted towards reducing chances of early pregnancy which can be difficult for a teenage girl.

Key words: Teenage pregnancy, Socio demographic factors, Antenatal care

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INTRODUCTION

Teenage Pregnancy is a huge problem in developed as well as developing countries. Pregnancy can result in lot of hardship for the women including various health conditions, poor living habit, huge burden of child upbringing can itself cause lot of damage to the teenage mother's psychology. Pregnancy can occur around 12 or 13, and being the stage at which a female becomes potentially fertile. National Family Health Survey (NFHS)-3 revealed that 16% of women, aged 15-19 years, have already started childbearing. In rural regions, the rate is much higher that is 21.21%¹ than it is in urbanized areas. Studies done in various parts of the countries such as Bombay showed a rate of 33.17%,² Kolkata 15.7%,³ Madurai 13.1%,⁴ Hyderabad 5.1%,⁵ and Coimbatore 12.69%.⁶

In developed regions, teenage mothers tend to be unmarried, and adolescent pregnancy is seen as a social

issue whereas, in developing countries, such pregnancies mostly occur in married teenagers, and their pregnancy is most often welcomed by family and society.^{7,8}

It was reported by Smitha et al.⁹ that most teenage pregnancies occur in the lower socioeconomic group, especially the unmarried with increasing sexual freedom, teenage pregnancies are increasing in the higher socioeconomic group also, but the rate of abortion in this group is high.

Data from National longitudinal study of youth (1994) indicate that one quarter of teenage mothers have a second child within 24 months of their first birth.

Thirteen out of 14 were socially excluded, 50% had disclosed domestic violence (compared with 12% of the entire cohort of mothers who died) and 50% were poor attendees at antenatal clinic (compared with 20% of the total cohort who were poor attendees or booked late).

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The correlation between deprivation and maternal deaths was also seen in the subsequent report, 2000-2002.¹⁰

Teenage pregnancy has also been associated with an increased prevalence of domestic violence. However, a recent review of 15 studies has failed to clarify whether there is a causal link between maltreatment or violence and adolescent pregnancy or whether there is an increased risk of domestic violence to pregnant teenagers.¹¹

At present the incidence in England and Wales is in between 2-44 per 1000.¹²

Spitz et al.¹³ had noted that teenage pregnancy rate is considerably higher in USA with the incidence varying from 25-75 per 1000 for 15-17 years and 92-165 per 1000 for 18-19 years.

Regarding the problem of low education - Wellings et al.¹⁴ surveyed over 11,000 males and females aged 16-44 years across the UK. They found that 29% of sexually active young women who left school at 16 years of age without any qualifications had a child before the age of 18 years, compared with 14% of those who left at 16 with qualifications and 1% of those who left at age 17 years or over.

This study aimed to find out the incidence and to analyze the socio demographic factors of teenage pregnancy.

MATERIALS AND METHODS

A clinical prospective case control study was done from 1st November 2010 to 30th December 2012 in Department of Obstetrics and Gynecology in a Rural Medical College in Karnataka, Ethical clearance was obtained, Consent was taken from patients. All Teenage Primigravidas were taken for the study group and Adult Primigravidas were control group. For each Teenage Patients simultaneous two adults were studied and demographic variables were noted. P-value was calculated for statistical significance. In this study 80 teenage patients were taken compared to 160 adults for analysis.

RESULTS

Table 1: Age distribution of patients studied (teenage group)

Age in years (teenage primigravida)	Number of patients	%
≤15 years	0	0.0
16-17 years	2	2.5
18 years	28	35.0
19 years	50	62.5
Total	80	100.0

Mean±SD: 18.60±0.54; Majority of study population were 19 years (62.5%)

Table 2: Age distribution of patients studied (Adults group)

Age in years (adult primigravida)	Number of patients	%
20-21 years	68	42.5
22-24 years	68	42.5
25-27 years	20	12.5
28-29 years	4	2.5
> 30 years	0	0.0
Total	160	100.0

Mean±SD: 22.21±2.05; Majority of study group were of age 20-24 years that is 85%

Table 3: Marital status

	Teenage		Adult	
	No	%	No	%
Married	80	100	160	100
Unmarried	-	-	-	-

All of the study population were married. This highlights the incidence of teenage marriages in India

Table 4: Age at marriage: Teenage

Age	Number	%
≤15	-	-
16-17	12	15%
18	26	32.5%
19	42	52.5%

Mean age of marriage is 18 years. 47.5% of population was married by 18 years of which 15% were below 18 years

Table 5: Age at marriage: Adults

Age	Number	%
≤20	40	25%
20-21	66	41.25
22-24	46	28.75
25-27	8	5
28-29	-	-

Majority of the married were of age 20-21 years

Table 6: Interval between menarche and marriage: Teenage

Interval years	Number	%
≤1	2	2.5
2	6	7.5
3	8	10
4	26	32.5
≥5	38	47.5

52.5% of teenagers were married ≤ 4 years of menarche, low gynecological age was seen (≤ 2 years) in 10% of the population

Table 7: Interval between menarche and marriage: Adults

Interval years	Number	%
1-3	-	-
4-6	60	37.5
7-10	72	45
≥10	28	17.5

Table 8: Consanguinity

Consanguinity	Teenage primigravida		Adult primigravida	
	No	%	No	%
First degree	-	-	-	-
Second degree	7	8.75	3	1.88
Third degree	-	-	-	-
Non consanguineous	73	91.25	157	98.12

Non-consanguinity were similar in both groups

Table 9: Education distribution of patients studied

Education	Teenage primigravida		Adult primigravida	
	No	%	No	%
No schooling	43	53.5	13	8.1
Primary	10	12.5	11	6.9
Secondary	18	22.5	19	11.9
High school	9	11.3	77	48.1
PUC	0	0.0	31	19.4
Graduate	0	0.0	5	3.1
Total	80	100.0	160	100.0

PUC: Pre University Course 53.5% of Teenage primigravida group were illiterate compared to adults 20-29 years with $P < 0.001^{**}$. More number of adults were educated compared to teenage

Table 10: Religion distribution of patients studied

Religion	Teenage primigravida		Adult primigravida	
	No	%	No	%
Hindu	79	98.5	158	98.5
Muslim	1	1.5	2	1.5
Total	80	100.0	160	100.0

Religion distribution is statistically similar with $P=1.000$

Table 11: Employment status

Employment	Teenage	Percentage %	Adults	Percentage %
Unemployed	74	92.5	68	42.5
Employed	6	7.5	92	57.5
Total	80	100	160	100

Majority of Teenagers were unemployed (92.5%) compared to 42.5% of adults. Teenage pregnancy further reduces employment status and makes them economically dependent on their family

Table 12: Family distribution according to type

Type of family	Teenage	Percentage	Adults	Percentage
Joint family	59	73.75	124	77.5
Nuclear family	21	26.25	36	22.5
Total	80	100	160	100

Staying in a joint family influences the Teenager's own decision and so is elicited in majority of the cases

Table 13: Socio-economic status based on modified BG prasad classification using per capita income study group

Socio-economic status	Teenage primigravida (n=80)		Adult primigravida (n=160)	
	No	%	No	%
Upper high	2	2.5	8	5
Higher	5	6.25	12	7.5
Upper middle	10	12.5	40	25
Lower middle	28	35	76	47.5
Poor	30	37.5	20	12.5
Very poor	5	6.25	4	2.5
Total	80	100	160	100

78.75% of teenage belong to lower middle class and below

Table 14: Antenatal care distribution of patients studied

Antenatal care	Teenage primigravida (n=80)		Adult primigravida (n=160)	
	No	%	No	%
Booked	49	61.25	149	93.1
Unbooked	31	38.75	11	6.9
Total	80	100.0	160	100.0

Unbooked cases are significantly more in teenage primigravida group with $P < 0.001^{**}$ compared to adults

Table 15: Immunization distribution of patients studied

Immunization	Teenage primigravida (n=80)		Adult primigravida (n=160)	
	No	%	No	%
Yes	80	100.0	159	99.3
No	0	0.0	1	0.7
Total	80	100.0	160	100.0

All most all the study population was immunized

DISCUSSION

Present study was carried out in Rural medical College and Hospital in Karnataka. This study was undertaken to understand the factors contributing for pregnancy among teenage mothers and their socio demographic factors which are responsible.

Age of the study

In this present study youngest mother was of 17 years. Most mothers belonged to 19 years (62.5%). In adult primigravida commonest age group is between 20-24 years (85%).

Marital status

The proportion of unmarried and married people as given by many authors are as follows.

Table 16: Comparison of marital status with respect to other studies

Sl.No.	Study	Unmarried	Married
1	Kavita N Singh <i>et al.</i> , 2001 ¹⁵	11.6%	88.4%
2	Sharma AK <i>et al.</i> , 2003 ¹⁶	-	100.0%
3	Ashok Kumar, 2007 ¹⁷	-	100.0%
4	Present study	-	100.0%

All of our study population was married comparable to above studies

Age at marriage

Table 17: Comparison of mean age with respect to other studies

Study	Mean age (years)
Sharma AK, 2003 ¹⁶	17
Present study	17.4

One of the most important factors are determining the age at which the first pregnancy occurs. In India, although the legal age at marriage is 18 for females and 21 for males, early marriage continues to be the norm. Centre for Development and Population Activities revealed that the average age at marriage among rural teenager was 16 as compared to urban areas i.e. 18.7 in INDIA, In Nepal it is 16 years, in our study it is 17.4 years.

Menarche – marriage interval

The interval between menarche and marriage in our study is that 52.5% of teenage primigravidae got married within 4 years of menarche compared to 37.5% for adults.

Consanguinity

Majority of both groups had non consanguinous marriage.

Illiteracy

Present study highlights, majority of patients were of low socio-economic status in both study and control group. This is mostly due to poor educational status in the teenage mothers. Most of teenage mothers (53.5%) haven't had primary education itself compared to 8.1% in adults.

Socio-economic status

In the present study, majority of the population 47.5% in teenage and 72.5% in adults belonged to middle socioeconomic class (upper and lower) and 43.75% of teenage belong to low socioeconomic class compared to 15% of adults.

Area

In my study 98% of the population belonged to rural area. A study by Kavita N Singh *et al.* (2001)¹⁵ showed that 65.3% of population was from urban and 44.7% from rural areas.

Antenatal care

Table 18: Comparison of antenatal care with respect to other studies

Authors	Booking
Sharma AK, 2003 ¹⁶	20.7%
Ashok Kumar, 2007 ¹⁷	52.7%
Present study	Teenage=61.25% Adult=93.1%

61.25% of teenage mothers were booked. All the teenage women in our study were immunized inspite of 38.75% being unbooked cases. Only one adult was not immunized and was an unbooked case. Awareness were mostly due to our government programmes hence booked cases in our study was little higher compared to other studies.

Proper antenatal care has a positive influence on the health of the mother and child. Teenagers do not take Iron-Folic acid (IFA) tablets properly and fewer are fully immunized with tetanus toxoid than mature women. But In present study the TT Immunization was adequate for both the groups.

CONCLUSION

From the present study it throws a light on various socio demographic factors relating to teenage pregnancy. Such factors if detected early can reduce significant number of complications including anemia, pre-eclampsia and preterm labour etc and also reduces higher operative interference, higher rate of LSCS followed by higher number of NICU admissions.

Since teenage pregnancy is a multifaceted problem, it demands multidimensional solutions. Pregnancy itself has a tremendous effect on teenage and her family. Here it was seen that teenage pregnancy was more common in low socio-economic status, due to lack of education, awareness of complications of teenage pregnancy. So this indicates, that awareness regarding teenage pregnancy, sex education and access to effective contraception are essential to improve social, psychological and mental status of teenage mother.

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Authors Contribution:

ID – Designed the study, collected data and correlated the results; **NJ** - Collected the cases; **DKD** – Supervised the study.

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