



A Study of Teenage Pregnancies in Rural Area

KEYWORDS

teenage pregnancies, LBW, Rural area.

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ABSTRACT Background: Teenage pregnant girls are vulnerable sections of society.

Aims and objectives: To study the socio-demographic characteristics and complications of the teenage pregnancies.

Materials and methods: A cross sectional study was conducted in the service area under the PHC having an approximate population of 45000 with a duration of 6 months and a total of 412 registered pregnancies were studied.

Results : The prevalence of teenage pregnancy in the study was found to be 19.9% with majority i.e. 59.75% Hindus, 43.9% illiterates and 56.1% belonging to lower socio-economic status. 48.78% belonged to joint family. 17.07% teenage mothers did some productive work. The prevalence of anemia was found to be 52.44% and pre-eclampsia 17.07%. 34.14% delivered a LBW baby.

Conclusions: Nearly one fifth of pregnancies occur in teenage women, who have significantly higher rates of complications.

Introduction:

Pregnancy in a girl aged between 10 and 19 years is adolescent or teenage pregnancy.¹ In the developing countries like India, early marriages and early pregnancy are the accepted cultural norms of our society.² In India, 18.2% of women aged between 20 and 24 years were married by the age of 15 years and 47.4% by the age of 18 years. 16% of adolescents between 15 and 19 years have begun childbearing.³

Pregnancy in very young women is generally considered to be a very high risk event, because teenage girls are physically and psychologically immature for reproduction. In addition, there are some extrinsic factors such as inadequate prenatal care, illiteracy, and poor socio-economic conditions that affect the outcome of pregnancy in teenage girls.⁴⁻⁶ Several medical complications like preterm birth, poor maternal weight gain, pregnancy-induced hypertension, anaemia, and sexually transmitted diseases are strongly associated with teenage pregnancy.⁷ It also adversely affects the status of women. Preserving the health of women has been given high priority in the Reproductive and Child Health Program.⁸ Knowing the burden of pregnancy in teenagers will go a long way in advocacy and devising appropriate intervention measures. With this background in mind we have conducted our study in a rural area.

Aims and objectives:

1. To study the socio-demographic characteristics of the teenage pregnancies.
2. To study the complications of teenage pregnancy.

Materials and methods:

1. **Study area:** The study was conducted in the service area under the PHC in Solapur district having an approximate population of 45000.
2. **Study type:** Community based Cross sectional observational study.
3. **Study period:** 6 months i.e. from January 2012 to June 2012.
4. **Study population:** All the registered pregnancies in the PHC or the sub centres under it who had delivered a baby during the study period were included with the following criteria:
 - a. **Inclusion criteria:** All registered pregnancies delivering either a still-birth or a live born new-born in the service

area of the PHC whose birth weight had been recorded within 48 hours, were included in the study.

- b. **Exclusion criteria:** Pregnancies who got aborted and those who were not available for the interview during the study period were excluded from the study.
5. **Data collection:** Thus, a total of 412 mothers who satisfied the above criteria were interviewed. Health workers (F), Anganwadi workers and trained dais specially trained for the survey helped collecting information from mothers of the new-borns by using pre-designed and pre-tested proforma. The recorded data of the women at the PHC and sub centres was utilised for the study.
6. **Statistical analysis:** Whole data entry is done in Microsoft Excel 2010. Data was analysed using SPSS software 16 version and Open Epi Software Version 2.3. Association of the risk factors under study was assessed by applying chi-square test taking a level of significance of $P < 0.05$.

Observations and results:

The prevalence of teenage pregnancy in the study was found to be 19.9% with majority i.e. 59.75% Hindus, 43.9% illiterates and 56.1% belonging to lower socio-economic status. The education and socio-economic status was found to be significantly associated with the teenage pregnancy.

Table no.1: Distribution of pregnancies according to socio-demographic characteristics.

Socio-Demographic Characteristics.	Age at Pregnancy			Statistical test
	≤19 years (=82) No.(%)	>19 years (=330) No.(%)	Total (N=412)	
Religion				
Hindu	49(18.01)	223(81.99)	272	$\chi^2 = 1.80$ df = 2 p-value>0.05
Muslim	20(23.25)	066(76.75)	086	
Buddhist	13(24.07)	041(75.93)	054	

Education				
Illiterate	36(22.09)	127(77.91)	163	$\chi^2 = 7.45$ df = 2 p-value<0.05
Primary	28(25.92)	080(74.08)	108	
Secondary and above	18(12.77)	123(87.23)	141	
Socio-economic status*				
I + II + III classes	08(12.69)	055(87.31)	063	$\chi^2 = 7.58$ df = 2 p-value<0.05
IV-Upper Lower	28(16.27)	144(83.73)	172	
V-Lower	46(25.99)	131(74.01)	177	

***As per modified B.G. Prasad classification^{9,10}**

48.78% belonged to joint family, 39.02% to nuclear family and 12.2% to three generation family. 17.07% teenage mothers did some productive work like farming, labour etc while 82.93% were housewives.

The teenage pregnancies were compared with the normally aged women i.e. 20-29 years for the complications. The prevalence of anemia in the teenage pregnancies was found to be 52.44% and it was significantly associated with teenage pregnancy. 21.95% of teenage pregnancies had pre-term labour, 21.95% of teenage pregnancies underwent a caesarean section and 34.14% delivered a LBW baby and all these three complications were found to be significantly associated with teenage pregnancy.

Table no.2: Distribution of pregnancies according to the complications of pregnancy.

Complications	Age at Pregnancy			Statistical test
	≤19 years (=82) No.(%)	20-29 years (=310) No.(%)	Total (N=392)	
<u>Anaemia</u>				
Present	43(29.05)	105(70.95)	148	$\chi^2 = 9.51$ df = 1 p-value<0.01
Absent	39(15.98)	205(84.02)	244	
<u>Pre-term labour</u>				
Present	18(56.25)	014(43.75)	032	$\chi^2 = 26.29$ df = 1 p-value<0.01
Absent	64(17.77)	296(82.23)	360	
<u>Low birth weight</u>				
Present	28(35.89)	050(64.11)	078	$\chi^2 = 13.21$ df = 1 p-value<0.01
Absent	54(17.19)	260(82.81)	314	

Table no.3: Distribution of pregnancies according to type of delivery.

Type of delivery	Age at pregnancy		Total
	≤19 years	>19 years	
Vaginal	64	294	358
LSCS	18	036	54
Total	82	330	412

$\chi^2 = 7.03$, df = 1, p-value<0.01

Discussion:

Early marriage continues to be the norm in the country, although mean age at marriage has been increasing steadily from 1951 onward both for males and females. As compared to urban areas, the age at marriage is about one and half year lower in rural areas due to traditional belief and social practice of marrying young.¹¹ The similar findings were observed in our study.

In the present study, it was observed that as the educational status of the teenage pregnant mothers increased, there was an increase in the age at marriage and age at first pregnancy. This finding was in accordance with the other studies.^{11,12} .Average age at marriage for educationally disadvantaged female was 15 years, it was 22 years for women who have completed school.¹¹

The prevalence of teenage pregnancy in the study population was 19.9%, which lies within the range observed in India, which varies from 3% to 52%.^{4,13,14} Complications of pregnancy were observed to be more among adolescent mothers. The incidence of preterm delivery, low birth weight, and complications during pregnancy and labour like toxemia of pregnancy, eclampsia, and cephalopelvic disproportion were more in teenagers.^{2, 15}

Anaemia is a common complication of teenage pregnancy⁷ Chahande, et al. reported 72.6% of teenage pregnant women to be anemic.² Osbourne, et al. observed a highly significant increase in the incidence of anaemia ($P<0.001$) in pregnant teenagers, 11.1% as compared with 5.2% in the 20-24 year old age group.¹⁶ In this study, the finding was similar, though the incidence, as a whole, was higher in both the groups than that observed by Osbourne.¹⁶

Prematurity rates have been reported to be higher in teenage mothers than in the older group by many authors. Probable causes for the higher incidence of preterm labour may be anaemia, malnutrition, pregnancy induced hypertension, or lack of antenatal care.^{17,18,19} Foreign authors also observed similarly.^(16,20) In this study, the incidence of preterm delivery among the teenage mothers (51.51%) was double that in the control group (25.82%). Preterm delivery in teenagers in this study was much higher than that reported by the other Indian authors, which varied from 13.7% to 31%.^{21, 18,2,19}

In our study we got a high proportion of LBW babies among the teenage pregnancies. Some authors reported a higher incidence of low birth weight among babies born to teenage mothers.^{21, 2.}

Conclusion:

This study highlights that nearly one fifth of pregnancies occur in teenage women, who have significantly higher rates of complications. This may cause retardation of growth and development, and also deprive them of their childhood and education with resultant deterioration of the overall health of the nation. The time has come to focus on this problem. Education, nutritional support, and family planning, along with creating awareness among the community and also the school girls about the importance of delaying marriage, reproductive health, family life, and population education will definitely help in transforming today's adolescent girls into healthy and responsible women, giving birth to a healthy future generation.

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