

# Perinatal Outcome in Teenage Pregnancy (16-19 Years)

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**Abstract:** Introduction: Adolescent pregnancy is widely recognized as one of the most complex and serious social, economic and health related problems throughout the world. Adolescent pregnancy is a high risk pregnancy and the perinatal outcome is less satisfactory than of a pregnancy in general population. Aims and Objective: This study aimed to find the perinatal outcome in teenage pregnancy (16-19 years). Material and Method: Cases of teenage pregnancies (16-19 years) admitted in labour room of New Civil Hospital, Surat during the study period of April 2014 to March 2015. Data was collected through interviews and by observations using the predesigned proforma. The first contact with the subject for data collection began immediately after delivery of baby. Result: In this study 69 % of subjects were associated with complication. The major perinatal complications were NICU admission 57%, Prematurity 45%, Low birth weight 25%, IUGR and Still births 18%. Conclusion: From present study we found that there are perinatal complications like NICU admissions, prematurity, low birth weight, IUGR; still births were higher in teenage pregnancy as compared to general population. For pregnant adolescent attending the antenatal clinic, extra care should be taken to ensure that the minimum number of antenatal visits is made. Appropriate and adequate counseling on different antenatal services are to be offered to them.

**Keywords:** Adolescent, Teenage pregnancy, observational study, perinatal outcomes.

## 1. Introduction

Adolescent pregnancy is widely recognized as one of the most complex and serious social, economic and health related problems throughout the world. Adolescent pregnancy is a high risk pregnancy. Outcome is less satisfactory than of a pregnancy in general population.

A wide range of issue and concerns faced by adolescent of India include nutritional deficiencies, reproductive health problems, STIs, and mental and physical stress related problems. Stress often causes dependence on tobacco and other habit forming drugs.

Health risks to the Baby:

- i. Adolescent mother are less likely to gain adequate weight during pregnancy, leading to low birth weight babies which is associated with infant and childhood disorders and high rate of infant mortality.
- ii. The organs of low birth weight babies are not well developed so chances of bleeding in the brain, respiratory distress syndrome and intestinal problems are very high.
- iii. Nutrition in adolescent mother is very low which may also cause health problem in the baby.

Children born to adolescent mother:

- i. Children of these mothers do not get proper nutrition, health care, and cognitive and social stimulation. As a result they may have an underdeveloped intellect and attain lower academic achievement.
- ii. Children of adolescent mothers are at greater risk of abuse and neglect.
- iii. Boys of these mothers are 13% more likely to be incarcerated.

- iv. Girls are 22% more likely to become adolescent mothers.

## 2. Aims and Objectives

To evaluate the fetal outcomes in teenage pregnancy (16-19 years)

### Subjects and Methods

The study was undertaken in the department of Obstetrics and Gynecology at New Civil Hospital, Surat.

### Source of data:

Cases of teenage pregnancies (16-19 years) admitted in labour room of New Civil Hospital, Surat during the study period of April 2014 to March 2015.

### Methods of collection of data:

Patients with teenage (16-19 years) pregnancy of 24 to 40 weeks admitted to labour room of New Civil Hospital, Surat. Data was collected through interviews and by observations using the predesigned proforma. The first contact with the subject for data collection began immediately after delivery of baby.

### Inclusion criteria:

1. All pregnant women of 16 to 19 years of age admitted to labour room of NCHS.
2. Without medical disorder.
3. Pregnancy of more than 24 weeks.

### Exclusion criteria:

1. Twin gestation.
2. Age less than 16 years and more than 19 years.

3. Associated medical disorders like cardiovascular disorder, hypertensive disorder, endocrinological disorder or respiratory disorder.
4. Pregnancy of less than 24 weeks.

### 3. Observation and Discussion

#### Distribution of subjects according to maternal age:

Age	No. of Subjects (n-100)	Percentage %
16 years	4	04.0%
17 years	5	05.0%
18 years	39	39.0%
19 years	52	52.0%

- The above table shows that 91% of subjects had completed 18 years.
- 5% of subjects had completed 17 years and 4% of subjects had completed 16 years of age.
- Mean age of my study was 18.4 ±1.06years.

**Table 11:** Distribution of adverse neonatal outcome:

Neonatal Complication	No. of Subjects (n-100)	General Population (n-7697)	P-Value
NICU admission	57(57%)	479(6.5%)	<0.05
Prematurity	45(45%)	441(5.7%)	<0.05
LBW	25(25%)	580(7.8%)	<0.05
IUFD	18(18%)	358(4.6%)	<0.05
IUGR	09(09%)	193(1.2%)	<0.05
Early neonatal death	07(07%)	105(1.9%)	<0.05

The above table shows that neonatal complication like NICU admission, LBW, prematurity, IUGR, early neonatal death were significantly higher in my subjects than general population.

**Table-11b:** Comparison of neonatal outcome of our study with another study

#### Neonatal complication:

Neonatal outcomes	Our study	R N Chaudhari et al (2007)	A K Sharma et al (2003)	IMR Goodnewardene et al (2005)
Low birth weight	25%	38.9%	57.1%	24.8%
IUFD	18%	05.9%	15.6%	09.2%
Early neonatal death	09%	05.8%	01.7%	06.3%

The above table shows that foetal complication like low birth weight and early neonatal death were comparable with other study while rate of IUFD was higher.

**Table 12:** Distribution of neonatal outcome according to maternal age:

Age	Live Birth	Still Birth	Total
16years	03	01	04
17years	04	01	05
18years	33	06	39
19years	42	10	52
<b>Total</b>	<b>82</b>	<b>18</b>	<b>100</b>

**Degree of freedom-3, p value-<0.0001**

The above table shows stillbirth rate was significantly higher in teenage deliveries, statistically it was significant (p value <0.0001).

**Table-12b:** Comparison of neonatal outcome between my study and general population

	Live Birth	Still Birth
My study (n-100)	82(82%)	18(18%)
General population (n-7697)	7339(95.4%)	358(4.6%)

The above table shows 82% of subjects were live born and 18% of subjects were still born in our study compared to general population where 95.4% of subjects live born and 4.6% where still born, statistically significant (p-value-<0.05)

**Table 13:** Distribution of subjects according to Birth weight and APGAR:

	No. of Subjects
Birth weight <2kg	39
>2kg	61
APGAR At 1min <5	12
>5	76
At 5min <5	09
>5	79

The above table shows that 39% of subjects had LBW which was because of pre maturity or IUGR

12 % of subjects had APGAR <5 at 1 minutes and out of this 12% subjects 9 % had remains APGAR <5 at 5 minutes those who required NICU care.

### 4. Discussion

The incidence of teenage pregnancy shows marked variation in developed and developing countries<sup>11</sup>. As per DLHS<sup>12</sup> 3(District level Household and Facility Survey), in India, over all incidence of adolescent pregnancy is 5.6% (rural 6.4% and urban 3.5%), there is wide range of variation among states. Gujarat has 3.4% of adolescent pregnancy. There are some extrinsic factors such as inadequate prenatal care, illiteracy, and poor socioeconomic conditions that affect the outcome of pregnancy in teenage girls<sup>7-9</sup>. Several perinatal complications like Still birth, NICU admissions, Prematurity, Low birth weight, Intra uterine fetal death, Intra uterine growth retardation, Early neonatal death, etc.

In our study 52% of subjects were 19 years of age and 48 % of subjects were 18 to 16 years of age. 96% of subjects were primi gravida and 4 % of subjects were second gravida.

Early marriages in our society are associated with low level of schooling and education as well as early pregnancies. Attainment of higher education is associated with better awareness and wisdom, and consequently an urge for professional pursuit and desire for economic independence. This in turn leads to late marriage and late conception preventing unintended adolescent pregnancies.

In our study 52% of subjects were emergency admission who had not taken single ANC visit, 23% subjects were registered subjects and 25% were referred from rural area.

Our study showed that neonatal complications like NICU admission, LBW, prematurity, IUGR, early neonatal death were significantly higher in our subjects than general population. While the fetal complications like low birth weight and early neonatal death were comparable to studies of R N Chaudhari et al (2007), A K Sharma et al (2003), IMR Goodnewardene et al (2005), the rate of IUFD was higher.

Also stillbirth rate is significantly higher in teenage deliveries which were statistically significant (p value <0.0001) and this is comparable from the following:

82% of subjects were live born and 18% of subjects were still born in our study compared to general population where 95.4% of subjects live born and 4.6% were still born, statistically significant (p-value < 0.05).

## 5. Conclusion

From present study we found that there are maternal complications like anaemia, eclampsia, pre-eclampsia were higher in teenage pregnancy as compared to general population. Also we found that neonatal complications like low birth weight, prematurity, IUGR were higher as compared to general population.

The adverse outcome of teenage pregnancy could be attributed not only to lower maternal age but also to their relatively disadvantaged socioeconomic background. Efforts need to be directed towards strict enforcement of laws prohibiting teenage marriage in India. Access to quality health services that are gender - sensitive and adolescent – friendly should be ensured.

## References

- [1] Khanna AT. Adolescent Health: issues and concerns in India. Health Millions. 1995;21(3):29-30.
- [2] Bhatia BD, Chandra R. Adolescent mother. Ind J Matern Child Health. 1993; 4(3):67-70.
- [3] Statistics on Teen Pregnancy. National Campaign To Prevent Teen Pregnancy.
- [4] The National Campaign to Prevent Teen Pregnancy. Not just another single issue: Teen pregnancy

prevention's linked to other critical social issues PDF (147KB). 2002. Retrieved May 27, 2006.

- [5] Furstenberg FF, Levine JA, Brooks-Gunn J. The children of teenage mothers: Patterns of early childbearing in two generations. Fam Plann Perspect. 1990; 22(2):54-61. Doi:10.2307/2135509. JSTOR 2135509. PMID 2347409.
- [6] Swann C, Bowe K, McCormick G, Kosmin M. Teenage Pregnancy and parenthood: A review of reviews. London: HAD. 2003.
- [7] Bhaduria S. Teenage pregnancy: A retrospective study. J Obstet Gynecol India. 1991;41:454-6.
- [8] Kale KM. Socio-medical correlates of teenage pregnancy. J Obstet Gynecol India. 1996;46:180-4.
- [9] Pal A, Gupta KB, Randhawa I. Adolescent pregnancy: A high-risk group. J Ind Med Assoc. 1997;95:127-8.
- [10] Aznar R, Bennet AE. Pregnancy in the adolescent girl. Am Obstet Gynaec. 1961;81:934.
- [11] [http://www.unfa.org/public/home/factsheets/young\\_people#getfacts](http://www.unfa.org/public/home/factsheets/young_people#getfacts) as accessed on 24 September 2012.
- [12] <http://www.rchiips.org/PRCH-3.html> as accessed on 24 September 2012