

**A CROSS SECTIONAL STUDY ON ADOLESCENT PREGNANCY AND ITS OUTCOME
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ABSTRACT

Background: Adolescent is the phase of life between childhood and adulthood, from ages 10 to 19. Adolescent pregnancy can be defined as pregnancy occurring in a teenage girl under 19 years age. Teenage pregnancy is one of the major public health issues in world. Every year, an estimated 21 million girls aged 15-19 years in developing regions become pregnant and approximately 12 million of them give birth. This shows that the impact of pregnancy in adolescents results in poor outcome. Hence the present study was selected to know the outcome of adolescent pregnancy and compare with normal pregnancy. **Objectives:** 1.To study factors related to teenage pregnancy and its outcomes. 2.To study maternal and foetal outcomes of adolescent pregnancy and compare with normal pregnancy. **Methodology:** It is a cross sectional hospital based observational study conducted in the month of May to June 2022. The study subjects include postnatal mothers in the postnatal wards of government general hospital, Guntur. The data was collected by using pre-designed, pre -tested & semi-structured questionnaire by face-to-face interview in postnatal wards after obtaining informed consent from the study participants. The data was analysed by using SPSS software. **Results:** 78% of adolescents belong to rural background and 50% adolescents belong to lower middle socio-economic status. In this study 72% of adolescents were mildly anaemic. The proportion of pre-term labour in adolescents is 28.75% whereas the proportion of low birth weight is 29%. **Conclusion:** In present study low birth weight, postnatal complications and preterm labour are more among adolescents compared to normal women. Most of adolescents belong to low socio-economic status compared to normal women.

KEYWORDS: Adolescent pregnancy, post-natal complications, socio-economic status, preterm labour etc....**INTRODUCTION**

According to WHO, adolescents are the individuals in the age group of 10-19 years.^[1] It is an important stage of human development and important time for laying the foundations of good health.

Adolescence represents a key stage in the development and a critical opportunity for ensuring a successful transition to adulthood.^[2] Pregnancy during adolescence period is very dangerous leading to complications. During adolescence age physical and mental development is incomplete and it causes more stress to the mother. In developed countries most of the adolescents are unmarried. Whereas in developing countries like India this problem still exists. As per NFHS-5 data the prevalence of adolescence pregnancy in Andhra Pradesh is 13% and stands in 3rd place in India.

Adolescent pregnancy is seen as a social issue due to inadequate sex education and contraception and due to customs and traditions supporting adolescent marriages.

Adolescent pregnancy is associated with maternal outcomes like Postpartum haemorrhage (PPH), anaemia, Pregnancy induced hypertension (PIH), Puerperal sepsis, Premature rupture of membranes (PROM) and Preterm labour.

Teenage pregnancy also associated with adverse foetal outcomes like preterm births, low birth weight babies, still births etc....

Hence in this background, the present study was conducted in a tertiary care hospital Guntur, with the aim to study the socio-demographic characteristics and to know the maternal and foetal outcomes of adolescent pregnancy and compare with mothers in the age group of 20-30 years.

OBJECTIVES

1. To study factors related to teenage pregnancy and its outcomes.
2. To study maternal and foetal outcomes of adolescent pregnancy and compare with normal pregnancy.

METHODOLOGY

- **STUDY DESIGN:** cross sectional hospital based comparative study.
- **STUDY SETTING:** The study was conducted in Government General Hospital, Guntur.
- **STUDY PERIOD:** Conducted in the month of May to June 2022.
- **STUDY POPULATION:** Both the study groups were selected from the Post natal wards in the obstetrics and gynaecology department of government general hospital, Guntur.
- **SAMPLE SIZE:** A Convenient sample of 80 adolescents and 120 normal pregnancies were taken. (Total 200)
- **INCLUSION CRITERIA:** Mothers who were willing to participate in study, Adolescent mothers less than or equal to 19 years & women of 20-30yrs age.
- **EXCLUSION CRITERIA:** Exclusion criteria for teenage pregnancy are the pregnant women between 18-19 years with preexisting chronic medical conditions such as heart disease, bronchial asthma,

hypertension, diabetes mellitus and hypothyroidism and those who are not willing to participate in the study are excluded. Exclusion criteria for adult pregnancy the pregnant women between 20-30 years with pre-existing chronic medical conditions such as heart disease, bronchial asthma, hypertension, diabetes mellitus and hypothyroidism and those who are not willing to participate in the study are excluded.

- **METHOD OF DATA COLLECTION:** Data was collected by using a pre- designed, pre-tested and semi-structured questionnaire by face-to-face interview of each participant. The questionnaire recorded data on socio-demographic details, complications, maternal & foetal outcomes.
- **INFORMED CONSENT:** Informed consent was taken from all study participants prior to participation in the study. Pilot study was done to test the feasibility and validity of the questionnaire.
- **DATA ANALYSIS:** Data was entered into MS Excel sheet and analysed by using SPSS Software version 25. The results of the study were represented in appropriate tables and figures. Chi-square test was applied, statistical significance was considered when $P < 0.05$.

RESULTS

Table 1: Demographic details of study participants.

	Adolescence (80)	20-30 years (120)
Area of residence		
Rural	63 (78%)	67 (56%)
Urban	16 (20%)	53 (44%)
Tribal	1 (2%)	
Age at marriage		
<19 years	80 (100%)	53 (44%)
20-30 years	-	67 (56%)
Socio-economic status (BG Prasad)		
Upper		
Upper-middle	8(10%)	17(14%)
Middle	32(40%)	50(42%)
Lower middle	40 (50%)	48(40%)
Lower		5(4%)

In the present study 78% of adolescents belong to rural background and 50% adolescent mothers belong to lower middle socio-economic status. Whereas 56% of normal pregnant women belong to rural background and 42% of normal mothers belong to middle socio-economic status. This shows that adolescent pregnancies are more common among rural areas and seen in lower socio-economic status people. These are the two important factors which contribute to adolescent pregnancy.

OUTCOMES

Table 2: Anaemia in study groups.

Haemoglobin	Adolescents (80)	20-30 years (120)
>10gm %	3(4%)	7(6%)
8-10gm%	58(72%)	72(60%)
6.5-8gm%	19 (24%)	36 (30%)
<6.5gm%		5 (4%)

In the study 72% of adolescents were mildly anaemic whereas 60% of normal mothers were mildly anaemic.

The proportion of pre-eclampsia is high among the adolescents when compared to normal mothers but this does not show any statistical significance.

Table 3. Pre-eclampsia in study groups.

Pre-eclampsia	Adolescents (80)	20-30 years (120)
Present	7 (6%)	5 (4%)
Absent	73(94%)	115 (96%)



Fig1&2. Type of delivery in study participants.

The proportion of c-sections were higher among adolescent pregnancies (44%) when compared to normal pregnancies (40%).

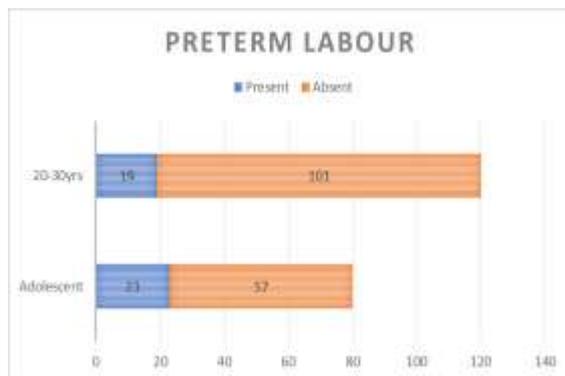


Figure 3: Pre-term Labour.

The proportion of pre-term labour in adolescent pregnancy is higher when compared to normal pregnancy and it shows statistical significance. (**chi-square value=4.827, p=0.0280**)



Figure 4: Low birth weight.

The proportion of low birth weight in adolescence pregnancy is 29% whereas in normal pregnancy the proportion of low birth weight is 15%. This shows statistical significance (**chi-square value=5.568, p=0.0183**)

DISCUSSION

The proportion of pre-term labour in this study is 28.75%, whereas in a study conducted by Tripathi M et al (3) the proportion is 20%. The proportion of low-birth weight in this study is 29% whereas in a study conducted by Varma et al (4) the proportion is 35%, study conducted by Rita et al (5) shows the proportion as 12.5%, study conducted by Nair A et al (6) the proportion is 29.49%.

LIMITATION

The major limitation of this study is sample size is less. If the sample size is more and collected data from more tertiary care hospitals then there would be more significant results.

CONCLUSION

To conclude from this study, the complications like pre-term labour and low birth weight were higher among adolescents when compared to normal pregnancies. Pre-term labour and low birth weight were the leading causes of Infant mortality rate.

RECOMMENDATIONS

Education of adolescent girls plays a key role in delaying the age of marriage and child bearing age. By educating the adolescent girls we can reduce various complications

that are associated with teenage pregnancy. Increased use of skilled antenatal checkups prevents various complications. A multidisciplinary approach involving educationists, health workers, social workers and obstetrician and gynecologists is required to improve adolescent reproductive health.

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