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Original Research Article

A study on clinico social impact of teenage pregnancy in a tertiary care hospital

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ABSTRACT

Background: In India, teenage pregnancy is an important public-health problem, although the national policy of the Government of India advocates the minimum legal age of marriage for girls to be 18 years. Data of the National Family Health Survey (NFHS)-3 revealed that 16% of women, aged 15-19 years, have already started childbearing. Teenage pregnancies represent a high-risk group in reproductive terms because of the double burden of reproduction and growth. Complications of pregnancy and childbirth are the leading cause of mortality among girls aged 15-19 years in developing countries. Aim and objective of the study was to study the prevalence of teenage pregnancies and to study the clinico social impact of teenage pregnancies.

Methods: The observational cross-sectional study was conducted in Government General Hospital, Guntur in the department of Obstetrics and Gynaecology over three Months from August to October 2018. All pregnant women coming to either OPD or directly to the labour room were included in the study group. History was taken and examination was done.

Results: Among the 709 deliveries in the institute, 138 are teenage pregnancies contributing to 19.4%. Prevalence of anaemia in teenage mothers is as high as 63.7%, pregnancy induced hypertension contributing to 26.8% and abortions 9.4%. The neonatal outcome is poor in teenage mothers, low birth weight 20.2% contributing to the main morbidity.

Conclusions: Teenage pregnancy is associated with an increased incidence of preeclampsia, eclampsia, preterm delivery, increased incidence of instrumental deliveries and lower segment caesarean sections due to cephalopelvic disproportion, neonatal complications, increased neonatal morbidity and mortality mainly due to low birth weight was noted in babies delivered to teenage mothers.

Keywords: Abortion, Low birth weight, Maternal morbidity, Marriage, Teenage pregnancy, Vaginal delivery

INTRODUCTION

In India, teenage pregnancy is an important public-health problem, although the national policy of the Government of India advocates the minimum legal age of marriage for girls to be 18 years. Data of the National Family Health Survey (NFHS) - 3 revealed that 16% of women, aged 15-19 years, have already started childbearing. This proportion is the highest in the state of Jharkhand (28%)

followed by West Bengal (25%) and Bihar (25%) all located in Eastern India. A substantial proportion of young married girls was already malnourished. Nearly 47% of adolescent women have body mass index of less than 18.5, 11.4% are stunted and half of them have anaemia.¹

Teenage pregnancies represent a high-risk group in reproductive terms because of the double burden of

reproduction and growth. Complications of pregnancy and childbirth are the leading cause of mortality among girls aged 15-19 years in developing countries.²

Studies on complications in teenage pregnancy have yielded conflicting results, and opinions of different authors vary in this regard. Some have opined that age by itself is not a risk factor and poor outcomes are associated more with socioeconomic factors rather than with biological factors.³ Other researchers have failed to find any evidence for major impairments of pregnancy outcome among teenage mothers with provision of high-quality maternal care with complete coverage.⁴

The combination of poor nutrition and early child bearing expose young women to serious health-risks during pregnancy and childbirth, including damage to the reproductive tract, pregnancy - related complications, such as anaemia, pregnancy - induced hypertension, preterm labour, cephalopelvic disproportion, maternal mortality, perinatal and neonatal mortality, and low birthweight.^{5,6} Not only clinically, but there is a negative impact on the social life of the mother and the baby after childbirth in teenagers.

Poverty, illiteracy and low economic status, in turn, may lead to early marriages wherein such families already suffer from malnutrition which may lead to low birth weight, prematurity and other problems. This deteriorates the condition of the mother and the baby in future also. Apart from poverty, illiteracy, other social factors, improper family planning practices may increase the chances of pregnancy in teenage.

Low - birth weight baby has been found to be an important outcome of teenage pregnancy.⁷ In this view, the study was conducted to understand the factors responsible for the increased prevalence of adolescent pregnancies in a community. Aim and objective was to study the prevalence of teenage pregnancies, and to analyze the clinic social impact of teenage pregnancies.

METHODS

The observational cross sectional study was conducted in Government General Hospital, Guntur in department of OBG over a period of three Months from August to October 2018 and data will be analysed. All pregnant women coming to either OPD or directly to labour theatre were included in study group. Socio-demographic history was taken and examination is done. Investigations collected i.e. haemoglobin, blood group, RH typing, serology, urine routine, RBS. Data collected regarding the mode of delivery, whether vaginal delivery or caesarean delivery, full-term vaginal delivery or preterm delivery, if LSCS then indication for LSCS, the fetal outcome in terms of prematurity, RDS, low birth weight, stillbirth, anomalous fetus, NICU admission. Data was analysed.

Inclusion criteria

All pregnant women visiting OBG department, Government General Hospital, Guntur.

- Age 13-20 years
- Primigravida.

Exclusion criteria

- Age more than 20 years
- women with major illnesses during a pre-pregnant state
- Any perinatal complication occurring after 48 hours of delivery
- Primigravida women were selected to eliminate the influence of parity.

RESULTS

A total number of deliveries in a study period was 709 (n). Table 1 describes: Among the 709 deliveries in the institute, 138 are teenage pregnancies contributing to 19.4% and 571 are more than 20years of age contributing to 80.6%.

Table 1: Prevalence of teenage pregnancy.

Age	No	Percentage
Teenage	138	19.4
More than 20 years	571	80.6
Total	709	100

Table 2: Mode of delivery among study population.

Mode of delivery	Teenage	%	More than 20 years	%
FTNVD	77	10.8	318	44.8
Forceps	5	0.7	21	2.96
C section	56	7.89	232	32.7
Total	138	19.4	571	80.6

Table 1 shows that prevalence of teenage pregnancy in our institution is 19.4% (77), and adult were 80.6% (571), n = 709. Among them 77 had vaginal delivery contributing to 10.8% of vaginal deliveries and 56 underwent LSCS contributing to 7.89% of caesarean deliveries for various indications without much difference compared to adult mothers. Remaining 5 (0.7%) cases delivered by forceps. Table 2 describes among 395 vaginal deliveries during study period out of this, 77 were teenage deliveries, 55.7% had full term vaginal deliveries and 40.5% had C section, 5 patients had forceps delivery. Table 3 Shows prevalence of anaemia in teenage mothers is more as high as 63.7% and PIH contributing to 26.8% and abortions 9.4% which is significantly high compared to adult mothers in other studies as mentioned in discussion part.

Table 3: Maternal complications/ outcome associated with teenage pregnancy.

Complications/ outcome	No	Percentage
Anaemia	88	63.7
PIH	37	26.8
Abortions	13	9.4

Table 4 shows the neonatal outcome is poor in teenage mothers as compared to adult mothers, low birth weight 20.2% contributing to the main morbidity, which is significant compared to mothers more than 19 years. 15.2 % being NICU admission due to Birth asphyxia, Neonatal jaundice, Congenital Anomalies and 1.4% being deaths within 48 hours of birth.

Table 4: Foetal complications/outcome associated with teenage pregnancy.

Foetal complications	No	Percentage
Low birth weight	28	20.2
Death <48 hours	2	1.4
NICU admission (due to Birth asphyxia, Neonatal jaundice, Cong. Anomalies)	21	15.2

DISCUSSION

Prevalence of teenage pregnancy in the study was 19.4%, but other studies showed the incidence from 8.3-23.4%.⁷ Although, the legal age at marriage is 18 years for females and 21 years for males in India, early marriage is common. By the age of 15 years, 26% of females are married, and by the age of 18 years, this figure rises to 54%. Most reproduction in India occurs within marriage; so, the low age at marriage automatically links to early onset of sexual activity and thereby fertility.⁸ Pregnancies occurring out-side wedlock have the risk of terminating in unsafe abortions by quacks and often do not reach the tertiary hospital. In the study, all the adult mothers were married.

Teenage pregnancies put mothers at high-risk to many health-related complications and their newborns to poor birth outcomes. Adverse outcomes of teenage pregnancy arise not only from physical and medical causes but are also associated with individual, familial and socio-cultural factors besides lack of access to healthcare, contraception, and other resources which is the prevailing situation in most developing countries. The study aimed at finding the distribution of different socio-demographic characteristics, such as education, type of family, etc., between teenage mothers and their older counterparts. A significantly higher proportion (72%) of the teenage mothers belonged to joint families compared to the older mothers (61%). This could be explained by the fact that the teenage women in a joint family remain under family pressure from their in-laws and cannot decide to bear children according to their own desire. Low levels of

literacy adversely affect reproductive and sexual health awareness and, thus, quality of life. An early start of childbearing greatly reduces the educational and employment opportunities of women and is associated with higher levels of fertility. In the study, the literacy rate was higher among the adult mothers compared to the teenage mothers, and the association between the age at conception and the literacy status was significant. In our study, we had one anomalous fetus and two still births and one macerated baby (IUGR) which are comparable to other studies.⁹

In the present study it came across two unmarried mothers even though its common practice to undergo abortion in unmarried women. Prevalence of anaemia was 63.7% in the study, 65-76% in similar studies.¹⁰ PIH contributed to 26.8% in the study where as other studies showed a range between 28-35%. Other studies have shown to have increased incidence if preterm delivery in studies but there was no significant difference.

There is significant rise in instrumental deliveries as shown in other studies in teenage mother contributing up to 42% probably due to inadequate pelvis. There is no much difference between caesarean delivery rates in the study as the number of caesarean delivery is increasing in women above age of 19 years for many other reasons like fetal distress, elderly primigravida, GDM on insulin, severe pre-eclampsia, previous LSCS, multiple gestations with malpresentation and maternal request. But cephalopelvic disproportion is the leading indication for caesarean in teenage mothers.

The teenage mothers had a higher proportion of normal delivery compared to the older mothers. This could be due to a higher proportion of smaller babies in that age-group. About 0.7% of the teenage mothers in this study had instrumental delivery compared to 2.96% of the adult mothers. However, the association between the age of mothers and the mode of delivery was not significant. Some authors have reported a higher rate of instrumental deliveries in the case of teenage pregnancies.¹¹⁻¹³ Consequently, the number of instrumental deliveries and caesarean sections was also higher. Other authors have re-reported lower rates, and some contradicted this view.¹⁴⁻¹⁷ There is higher frequency (20.2%) of occurrence of low-birth weight babies in the teenage-group. Low birth weight is a key predictor of malnutrition and an important determinant of child mortality.¹⁸ One of the most detrimental outcomes of low birth weight is growth retardation, and if the newborn happens to be a girl, it perpetuates a vicious cycle of female malnutrition throughout adolescence and adulthood. This process gives rise to a condition of intergenerational transmission of physical (small mothers have small babies), social and economic disadvantages into the next generation.¹⁹ The present study found that the number of low-birth-weight babies was more in the case of teenage mothers (20.2%). Babies born to teenage mothers are likely to be premature, and hence, the

prevalence of low birth weight is higher in them. This observation corroborates the findings of several other authors.^{7,10,17,20-22}

The proportion of stillbirths was also higher (5.1%) among the teenage pregnancies. Of the neonatal complications, neonatal deaths and birth-asphyxia were significantly higher in the teenage-group compared to the adult primigravida women possibly due to the more number of premature births. Occurrences of other complications in the two groups were not different. However, some bias might have been introduced, as the complications delayed beyond 48 hours could not be observed since there was no scope of any follow-up.

CONCLUSION

India is growing to be a most populous country in world, and teenage pregnancy is likely to aggravate the problem. As teenage pregnancy is associated with increased incidence of preeclampsia, eclampsia, preterm delivery, increased incidence of instrumental deliveries and LSCS due to cephalopelvic disproportion, neonatal complications, increased neonatal morbidity and mortality mainly due to low birth weight was noted in babies delivered to teenage mothers.

Law against early marriage i.e. less than 18 years, need to be implemented strictly which will prevent substantiate the number of teenage pregnancies, in turn obstetric complications, maternal and neonatal morbidity and mortality. In order to reduce the teenage pregnancies, WHO Guidelines as stated below on preventing early pregnancy and poor reproductive outcomes amongst adolescents in developing countries have been recommended.

- Reduce the number of marriage before 18 years
- Prevent pregnancy before the age of 20 years
- Increased access to contraception reduces unsafe abortions among adolescents
- Increased use of skilled antenatal check-up, childbirth, post-natal care.

The present study was an attempt to throw light on the different socio-demographic characteristics relating to teenage pregnancy and their outcomes and complications. In general, it was found that teenage mothers were from a socioeconomically-disadvantaged background with lower levels of education and used lesser antenatal healthcare services. They developed more perinatal complications, such as preterm births, stillbirths, and neonatal deaths, and delivered babies with low-birth-weight. Teenage pregnancy needs to be tackled as a priority to ease the burden of socio-economic and health problems.

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