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Feto-Maternal Outcome of Teenage Pregnancy in Port Harcourt, Southern Nigeria.

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ABSTRACT

The term "teenager" is often used synonymously with "adolescent". In this sense, teenage pregnancy means pregnancy in a woman aged 10–19 years. Teenage pregnancy constitutes a major social, medical and economic problem in developed and developing countries alike. The aim of this study was to determine the maternal and fetal outcomes of teenage pregnancies at University of Port Harcourt Teaching Hospital (UPTH), Port Harcourt, Nigeria. This was a retrospective study of 145 cases of booked and unbooked teenage pregnancies managed from 1st January 2008 to 31st December 2015. Malaria with 32% prevalence rate was the commonest antenatal complication. A high caesarean section rate of 30.4% was recorded as the operative intervention in alleviating fetopelvic disproportion. The commonest postpartum complication in teenage mothers (booked and unbooked) was primary postpartum haemorrhage with 9%. The most common fetal complications were birth asphyxia and low birth weight with 9% and 6.9% respectively. Maternal case fatality rate was 5.1 per 1,000 deliveries. Fetal case fatality rate was 25.6 per 1,000 deliveries. Teenage pregnancy was lower amongst booked women. Comprehensive and emergency obstetrics care, coupled with empowerment of the girl child are key to tackling this problem.

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INTRODUCTION

The term "teenager" is often used synonymously with "adolescent". In this sense, "adolescent pregnancy" means pregnancy in a woman aged 10–19 years. Teenage pregnancy is defined as pregnancy after menarche to age of nineteen[1-4]. This period corresponds to a time when there is a gradual transition from childhood to adulthood with potential conflict between biological and social factors[1].

Teenage pregnancies constitute major social, medical and economic problems in developed and developing countries alike and are becoming more prevalent in recent times[5]. Between fourteen and fifteen million adolescent girls give birth each year, accounting for more than 10% of births worldwide and a resulting 13% of global maternal deaths[6]. The occurrence of teenage pregnancies is high in developing countries, as 14% of adolescents in developing countries are married by age of fourteen and as much as 30% by age of eighteen years[7].

The inevitable result of increased sexual activity without contraception among teenagers is unplanned pregnancy. Pregnancy at a very young age is a high risk that can lead to a vicious cycle of medical, physical, and social problems from which the girl and her fetus can hardly escape[1,8-10]. Pregnancy in this age group is therefore generally regarded as high risk pregnancy[11]. Pregnancy in teenagers is often complicated by hyperemesis gravidarum, unsafe abortions, sexually transmitted infections, miscarriage, malaria, anaemia, preeclampsia, eclampsia, and prematurity[3,11,12]. Labour and delivery may also be complicated by obstructed labour due to fetopelvic disproportion, ruptured uterus, stillbirth, obstetric fistulae, prolonged labour, instrumental delivery, caesarean section, and death[1]. Fetal complications such as intrauterine growth restriction, low birth weight, neonatal morbidities and perinatal mortality also abound[3,13].

Antenatal care provides an opportunity for pregnancy complications to be diagnosed early and appropriate interventions instituted. In developed countries of America and Europe and some parts of the Middle East where pregnant teenagers receive adequate antenatal care, pregnancy and delivery complications are minimal[12]. In view of the effects of antenatal care, better education and general advancements of our society on teenage pregnancy and its outcomes, more recent information was required on the subject. The study aimed to determine the maternal and fetal outcomes of teenage pregnancies in women delivered at University of Port Harcourt Teaching Hospital (UPTH), Port Harcourt, Nigeria.

MATERIALS AND METHOD

This was a retrospective study of 145 cases of teenage pregnancy who received antenatal care (booked) and those who did not receive have antenatal care (unbooked); managed at University of Port-Harcourt Teaching Hospital (UPTH), between 1st January 2008 and 31st December

2015. Data was obtained from the antenatal clinic, labour ward, postnatal ward, unbooked lying-in ward, obstetric theatre and neonatology registers. The case files of women with teenage pregnancy during the period of the study were retrieved from the medical records department for analysis. Data extracted included demographic parameters of the patients, antenatal, intrapartum and postpartum complications, mode of delivery and gestational age at delivery, as well as maternal and fetal outcomes. The data was analysed using Statistical Package for Social Sciences (SPSS) version 23 statistical software.

RESULTS AND DISCUSSION

There were a total of 16,072 deliveries during the study period. Of these, 195 were teenage births (booked and unbooked). The case files available for retrieval from medical records department were145, giving a retrieval rate of 74.36%.

The unbooked teenage mothers accounted for 20.7% of the study population. Meanwhile 79.3% of the teenage parturients were booked, as shown in Table 1.

Table 1: Booking status of teenage mothers

Booking status	Frequency (Percent)
Booked	115(79.3)
Unbooked	30(20.7)

As seen in Table 2a, malaria was the commonest antenatal complication amongst teenage women with 32%, followed by urinary tract infections with 12.2%. Preterm deliveries were seen in 9.7% of the teenage mothers. Anaemia, pregnancy induced hypertension, Human immune-deficiency virus (HIV) and preeclampsia were the other antenatal complications recorded. However, 32.1% of the booked patients had uncomplicated antenatal periods.

Caesarean section and genital tract trauma were the most frequent intrapartum outcomes with 30.4% and 18.7% respectively. Preeclampsia (4.9%) and fetal distress (4%) were the other intrapartum complications. There was no intrapartum complication in 40.2% of the teenage parturients, as noted in Table 2b.

Table 2c shows that the common postpartum complications in teenage mothers were primary postpartum haemorrhage and postpartum hypertension with 9% and 7.6% respectively. Puerperal sepsis occurred in 3.4% of the women and there were no postpartum complications in 77.9% of the teenagers. One maternal death was recorded, translating to a case fatality rate of 6.9 per 1,000 deliveries.

A total of 23.5% of the babies required admission into the neonatology ward as seen in Figure 1. The most common postpartum fetal complications were birth asphyxia and low birth weight with 13.1% and 8.3% respectively. Macrosomic babies accounted for 2.1% of the babies. The mean birth weight was 3.24±0.21kg. Case fatality rate for the fetal deaths recorded was 35 per 1,000 deliveries (Figure 1).

Table 2. Complications in teenage mothers and their babies

Antenatal complication(booked)	**Frequency (Percent)**
Malaria	37 (32.0)
Urinary tract infection	14 (12.2)
Preterm labour	11 (9.7)
Preeclampsia	7 (6.0)
Anaemia	6 (5.3)
H.I.V	3 (2.7)
No complication	37 (32.1)

Intrapartum complication	**Frequency (Percent)**
Caesarean section	44 (30.4)
Genital tract trauma	27 (18.7)
Preeclampsia	7 (4.9)
Fetal distress	6 (4.2)

Postpartum complication	**Frequency (Percent)**
Primary postpartum haemorrhage	13 (9.0)
Postpartum hypertension	11 (7.6)
Puerperal sepsis	5 (3.4)
Birth asphyxia	19(13.1)
Low birth weight	10(8.3)

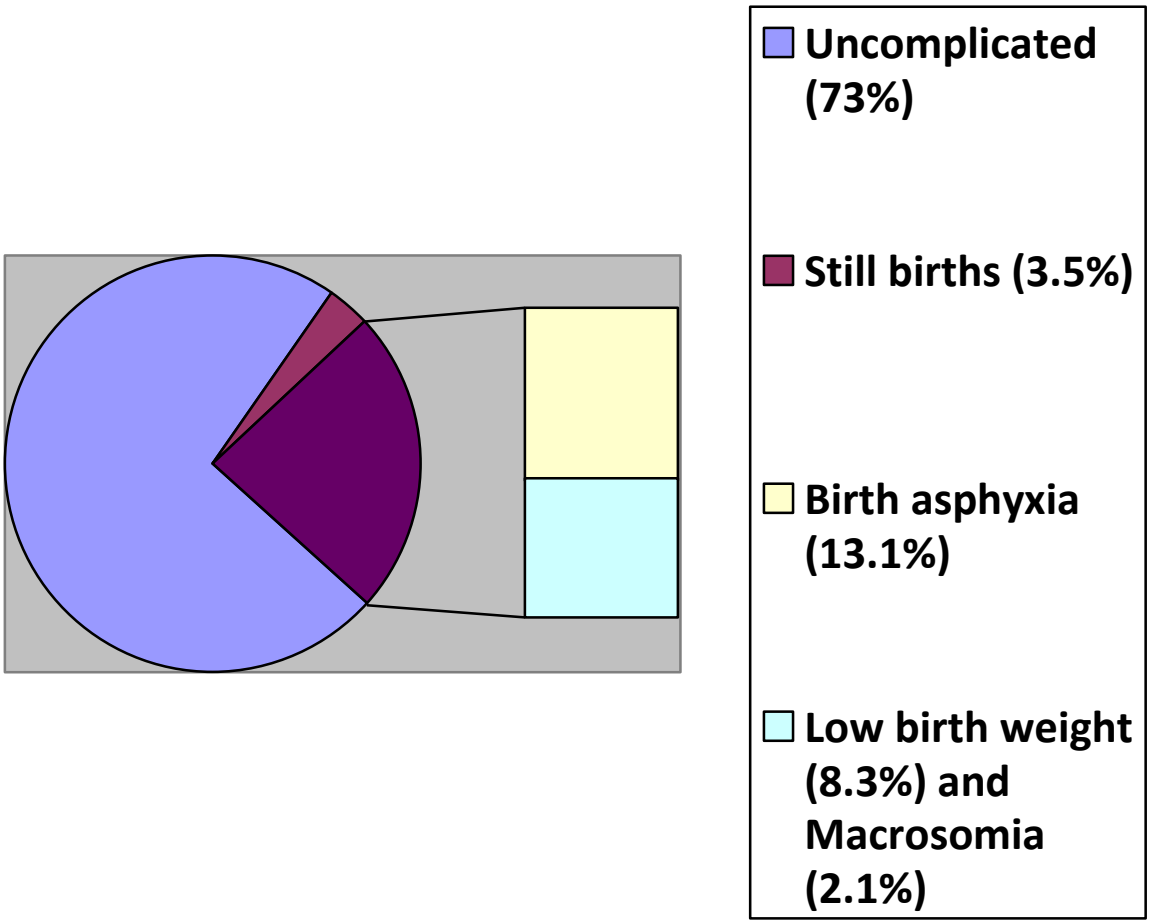

Figure 1. Fetal outcome in teenage parturients

DISCUSSION:

The study included all teenage parturients who received antenatal care (booked patients) and delivered at the facility where the study was done. Unbooked teenage mothers (emergency referrals who did not receive antenatal care) were also included, as this provided a true picture of the effects of modern care facilities on the outcome of the teenage pregnancies.

The commonest antenatal complication seen in this study was malaria. Others commonly seen in this study and studies alike were anaemia, urinary tract infections, hyperemesis gravidarum and preterm labour[4,5,8,9,11]. Despite these commonly noted antenatal complications, 28% did not develop any antenatal complications, thereby underscoring the significant role antenatal care plays in this group of patients. This was at variance with findings from a prior Port Harcourt study where a lower proportion of teenage parturients were complication-free during the antenatal period, probably due to reduced antenatal care uptake in those patients at the time of that study.

Intrapartum complications like genital tract trauma and fetopelvic disproportion resulting from tight perinea and incomplete pelvic growth respectively were also noted in this study. This brought about a high caesarean section rate of 30.4%, as this form of operative intervention was important in alleviating fetopelvic disproportion and preventing obstructed labour and its sequelae in the teenage parturients. This trend was apparent in similar studies conducted in different parts of Nigeria and other developing countries alike[11,13-17].

Sequel to genital tract trauma and operative interventions in teenage parturients, primary postpartum haemorrhage was the commonest postpartum complication in this study. Postpartum hypertension and puerperal sepsis were also noted, but to lesser extents. These were also noted in other studies[3,8,13].

Low birth weight was a major fetal complication as a result of inadequate nutrition, anaemia and the occurrence of preterm labour, with delivery of premature babies among teenage parturients in this study. Birth asphyxia was only slightly commoner than low birth weight. This was also similar to the findings in Ile-Ife[13], especially as a result of the higher proportion of unbooked teenage parturients in that study. Both complications may be attributable to prematurity following preterm labour that occurred in these patients.

Overall, 22.6% of the babies born to the teenagers in this study required admission into the neonatology ward. Maternal case fatality rate from the study was 5.1 per 1000 deliveries (0.51%) and fetal case fatality rate recorded was 35 per 1000 deliveries (3.5%). These statistics were similar to findings conducted in Benin, Ile-Ife and Bayelsa[8,13,18], but were at variance with a study in Calabar where maternal and case fatality rates were higher[9]. Generally, booked teenagers have a better perinatal outcome than their unbooked counterparts even when

subjected to the same delivery conditions[1,5,19-22]. This is because adequate antenatal care minimizes antenatal complications, with favourable influence on nutrition, labour and delivery.

CONCLUSION:

A significant proportion of teenage mothers deliver without any form of antenatal care. This often renders both the mother and fetus vulnerable to various risks and hazards. Antenatal care has been found to improve the obstetric outcome and should be encouraged in these young women in the event of pregnancy as against unsafe abortions. Available and accessible emergency obstetric care will also provide timely intervention in event of complications occurring in these young mothers.

Limitations to this study were the absence of complete antenatal records for unbooked teenage patients, the retrospective nature of the study and the non-electronic record-keeping at the hospital which resulted in a less than 100% case retrieval rate.

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