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Teenage pregnancies in a Nigerian tertiary hospital

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Abstract

Background: Teenage pregnancies are high risk pregnancies with increased risk of negative outcome in the babies, mothers or both.

Objectives: To identify and document the patterns of morbidity and mortality in teenage deliveries

Method: Consecutive babies admitted over a twenty four month period at the Ladoke Akintola University of Technology Teaching hospital, Ogbomoso, Nigeria were studied prospectively by use of a proforma. Information sought in the proforma include age, sex, birth weight, weight at admission, indication for admission of the newborn and outcome of admission. Information obtained on the parents include age, occupation and knowledge of contraception. Details were then inputted into the SPSS version 20. Results were thereafter analysed.

Results: Twenty nine babies were seen over the study period with their ages at admission ranging from 1 to 32 days. The babies were made up of 11 (37.9%) boys, 17 (58.6%) girls and 1 (3.4%) baby with ambiguous external genitalia who was referred to another medical centre before genetic sex could be determined. Weight at admission ranged from 1.5 to 3.7 kg. Eleven (37.9%) babies were of low birth weight while 18 (62.1%) had normal birth weights. Delivery was by Caesarean section in 7 (31.8%) and spontaneous vaginal delivery (SVD) in 22 (75.9%). The common indications for admission in the babies were birth asphyxia, prematurity, neonatal sepsis and neonatal jaundice. Most of the babies were discharged in a satisfactory condition after treatment for a mean duration of 11.8 ± 7.3 days. Seizures, hypertonia, bizarre posture and poor sucking reflex/feeding were the neurological sequelae recorded amongst some of the discharged children with kernicterus or perinatal asphyxia. Two deaths were recorded amongst the babies studied. One of the mothers also died 11 hours after delivery. Most of the babies were born out of wedlock to parents whose knowledge of contraception was poor. Seven (24.1%) of the mothers received no antenatal care. Most of the mothers and babies needed further support by their parents or grandparents post-delivery as some of their partners could not support the mothers and the babies.

Conclusion: Teenage pregnancy is a significant risk factor for morbidity and mortality in the newborn. Concerted efforts should be made to prevent teenage pregnancies by female child formal and sex education. The sex education should include contraception. Both mothers and babies need additional support for good outcome ante-natally, at delivery and post-delivery.

Keywords: teenage, pregnancies, babies

Introduction

Teenage pregnancies are common health concerns globally [1-3]. Pregnancies to girls aged between 13 to 19 years are classified as teenage pregnancies [3]. Deliveries of such pregnancies have been noted to be associated with increased maternal complications such as pre-eclampsia, premature rupture of membranes, obstructed labour, and postpartum haemorrhage [3]. Common perinatal complications include prematurity, fetal distress, fetal death, low birth weight and small for gestational age infants [3].

The complications enumerated above are some of the reasons why teenage pregnancies are classified as high risk. Many of the conceptions are unprepared for. Even after the parents become aware of the pregnancy, they may still fail to make concrete plans towards the delivery and postnatal care. Current information on the problems, prevalence, pattern of occurrence and morbidity associated with the condition is desirable. In addition, the knowledge of factors which may prevent teenage pregnancies is important as this can help to arrest or slow down the rising trend of teenage pregnancies in developing countries.

Methods

Consecutive babies and teenage mothers admitted between 1st January, 2015 and 31st December, 2016 at the Neonatal unit of Ladoke Akintola University of Technology (LAUTECH) Teaching Hospital, Ogbomoso, Nigeria were studied.

Ethical approval was obtained from the ethical committee of LAUTECH Teaching Hospital, Ogbomoso to carry out this study.

Necessary information on the babies and parents were obtained by use of a proforma. The details elicited include age of the baby at admission, birth weight, sex, indication for admission. Other details obtained include ages, educational status and occupation of the parents. Details of the antenatal care of the mother and knowledge of the parents on contraception were also requested. Regarding the knowledge of the parents on contraception, the knowledge was regarded

as poor if the father or mother lacked knowledge of any contraceptive method apart from abstinence, as fair if the father or mother had knowledge of at least one contraceptive method apart from abstinence; and as good if the father or mother knew most or all the present day scientific contraceptive methods. Also elicited were the care received by mother and baby post-delivery and the individuals responsible for the care.

Information obtained was entered into the SPSS 20 Statistical software system. Ranges and means of the age, birth weight and duration of admission of the babies were obtained. The frequencies and percentages of frequencies were also obtained and analysed. Results were stated as prose or as tables and other inferences or deductions made.

Results

Prevalence and general characteristics of the babies

The twenty nine babies accounted for 8.9% prevalence, based on the total of 291 admissions to the neonatal unit during the period of study. The ages of the babies at admission ranged from 1 to 32 days, with a mean of 5.2 ± 8.3 days. The 29 babies consisted of 11 (37.9%) boys and 17 (58.6%) girls. One (3.4%) of the babies had ambiguous genitalia among other birth defects (anorectal malformation and recto-vesical fistula). This was an outborn baby who was resuscitated and then referred to another medical centre for multidisciplinary management.

Birth Weights

The birth weights of babies ranged from 1.5 to 3.7 kg. Five (17.2%) babies had low birth weights, while 10 (34.5%) had normal birth weights. Birth weights of 14 (48.3%) babies were unknown because the record could not be retrieved from the places where the babies were born.

Gestational ages of babies

Five (17.2%) of the babies studied were premature by date with a gestational age less than 37 completed weeks at birth. Nineteen (65.5%) were term and 1 (3.4%) post term. By the modified Dubowitz (Ballard) examination the gestational ages of the babies were confirmed. The gestational age could not be ascertained in 4 (13.8%)

Mode of delivery of babies

Twenty two (75.9%) of the babies were delivered by SVD while the remaining 7 (24.1%) babies were delivered by Caesarean section. The indications for caesarean section were obstructed labour 3 (10.3%), severe PET 1 (3.4%), eclampsia 1 (3.4%), oligohydramnios 1 (3.4%) and abruption of placenta in 1 (3.4%).

Places of delivery of baby

Of the 29 babies, twelve (41.4%) were inborn while 17 (58.6%) were outborn. Twelve (41.4%) were delivered in LAUTECH Teaching hospital, 3 (10.3%) in maternity centres, 5 (17.2%) were delivered at home, 3 (10.3%) in state hospitals, 4 (13.8%) in traditional birth attendant centres, 1 (3.4%) in a private hospital and 1 (3.4%) in a church-mission house.

ANC registration and immunization with tetanus toxoid

Of the 29 mothers studied 22 (75.9%) registered for ante-natal care and 7 (24.1%) did not, while 23 (79.3%) of the mothers received tetanus toxoid during the index pregnancy 6 (20.7%) did not.

Duration of admission

The number of days spent on admission by the babies ranged from 1 to 34 days with a mean of 11.8 ± 7.3 days.

Indication for admission of babies

Birth asphyxia and sepsis were the most common indications for admitting the babies.

Table 1 shows the diagnoses.

Table 1: The diagnoses.

Diagnosis	No of Babies	% of 29
Birth asphyxia	16	55.2
Sepsis	7	24.1
Prematurity	3	10.3
Hypoglycaemia	1	3.4
Kernicterus	1	3.4
Birth defects	1	3.4
Total	29	100

Outcome

Eighteen babies were discharged from the neonatal unit, while 8 were discharged against medical advice and one baby was referred to another hospital for further management. Persistent hypertonia, seizure disorder, bizarre posture and poor sucking reflex/feeding were the neurological sequelae recorded amongst some of the discharged children with kernicterus or severe birth asphyxia. Two deaths were recorded amongst the babies studied. Both of them were outborn. One of the babies had hypoxic ischaemic encephalopathy stage 3 and died of respiratory failure 30 hours after admission. The second baby was low birth weight, small for gestational age and had been delivered in a traditional birth attendant's centre. The baby died of overwhelming sepsis and disseminated intravascular coagulopathy (DIC) 8 hours after admission.

One of the mothers also died of coagulation failure 11 hours after delivery by Caesarean section.

Ages of the fathers and mothers

Ages of the mothers ranged from 13 to 19 years, while the ages of the fathers ranged from 18 to 40 years

Table 2: Ages of Mothers and Fathers

Age	No of Mothers(% of 29)	No of Fathers(% of 29)
13	1(3.4 %)	-
15	1(3.4 %)	-
16	2(6.9 %)	-
17	5(17.2 %)	-
18	7(24.1 %)	1(3.4 %)
19	13(44.8 %)	1(3.4 %)
20	-	3(10.3 %)
21 -25	-	9(31.0 %)
26 – 30	-	10(34.5 %)
31 – 35	-	4(13.8 %)
36 – 40	-	1(3.4 %)
Total	29(100 %)	29(100 %)

Relationship between parents

None of the 29 parents was married, while 15 (51.7%) were having causal relationship and 13 (44.8%) were cohabiting. One (3.4%) of the babies was a result of rape.

Educational status and occupation of parents

Most of the parents were educated up to the primary or secondary school level. The educational attainments of the parents are shown in Tables 3.

Table 3: Educational Level of Parents

Educational attainment	Father	Mother
No formal education	1	1
Primary school completed	12	15
Secondary school completed	9	8
Secondary school student still	4	5
Polytechnic completed (OND)	2	-
Polytechnic student still	5	
Total	29	29

Occupation of the parents

Twelve of the fathers and 6 of the mothers were artisans whilst 2 fathers and 7 mothers were apprentices. Nine fathers and 5 mothers were students whilst the remaining 6 fathers and 11 mothers were unemployed.

Knowledge of contraception in mother Twenty three (79.3%) mothers had poor knowledge of contraception, while 5 (17.2%) had average knowledge of contraception. The knowledge of contraception could not be assessed in the mother who died.

Types of contraceptives used by the mothers

Oral contraceptives were used by 6 (20.7%) and post-coital contraception by 1 (3.4%). Twenty two (75.9%) mothers did not use any form of contraception. The reasons for not using any contraception include ignorance of the risk of pregnancy arising from intercourse by 7 (24.1%), deliberate care free action by 6 (20.7%), 4 (13.8%) wanting to be pregnant, pre-supposition that co-habiting is marriage and therefore liberty for intercourse by 2 (6.9%), rape in one case (3.4%), male partner wanting full experience of intercourse without protection 1 (3.4%) and female partner being afraid of acquiring infection from condom 1 (3.4%).

Persons responsible for care of the mother post delivery

The parents of the mothers were responsible for their care in 13 (44.8%) cases whilst the fathers of the babies were responsible in 11 (37.9%) cases, the paternal grandmother in 2 (6.9%), maternal grandmother in 1 (3.4%) case and the step mother in 1 (3.4%) case. The remaining mother died.

Persons responsible for care and custody of the baby

The mothers were responsible for the care of the babies in 9 (31.0%) cases, the maternal grandmother in 13 (44.8%) cases, the paternal grandmother in 4 (13.8%) cases and the step mother in 1 (3.4%) case.

Future plan of parents for their partners

Of the 29 fathers studied 17 (58.6%) wanted to marry their partners, while 12 (41.4%) had no plan for their partners. On the other hand of the mothers studied, 15 (51.7%) wanted to marry their partners, while 7 (24.1%) regretted their action but would not marry their whilst another and 6 (20.7%) had no future plans as at the time of the study.

Mother's attitude and adjustment to baby while on admission.

Of the 29 mothers studied 19(65.5%) adjusted well and bonded with their babies. These were seen to be happy, breastfeeding and engaging well with their babies, However, six were depressed and looked sad and withdrawn. They communicated poorly with the staff. Interaction was also poor with their babies. They were feeding themselves and their babies poorly. Two of them were non-challant with an indifferent look and needed promptings to engage and feed their babies, while observation/assessment could not be made in the mother who had died and another mother who was not seen during the period of admission of the baby because she had been admitted into another hospital.

Discussion

The prevalence estimate of 8.9% in this study for teenage pregnancies compares favourably to other studies from developing countries with prevalences ranging between 9 and 9.3% [4, 5]. The prevalence estimate was however much more than the 1.6% recorded amongst teenage Swedish mothers, but considerably lower than the 21% prevalence estimates obtained in two Nigerian hospitals located in Ibadan.[6, 7] The application of actively developed strategies in the social care, education and health care to counteract the negative consequences noticed among Swedish adolescents between

1973 – 2010, may explain why the prevalence estimate of this public health issue in Sweden is much less than in the present study.

Teenage pregnancy is a preventable public health condition if the concerned parents engage the appropriate technology. Most of the affected mothers in this study were still students in primary and secondary schools. Most of them displayed ignorance on contraceptive practice and did not use any method. The issue of a teenage mother and her partner not having a sustainable means of living is bound to have additional negative effect on the newborn baby and mother. They may be unable to afford the cost of essential materials for the care of the teenage mother and her newborn baby. This was the case in a number of the studied subjects where care of the teenage mothers and their babies was borne by the parents of the teenage mothers.

The diagnoses in most of the admissions recorded amongst the newborns such as birth asphyxia, prematurity and sepsis are indications of some of the health needs common to babies born to teenage mothers. These causes of admission are similar to those documented in previous studies [2, 5, 8]. The likelihood of these young parents with low socioeconomic status being unable to afford the cost of necessary materials for care of the newborn and new mother has been earlier stated. This may be partly responsible for the high rates of neurological sequelae and death outcome amongst the neonates. Considering that most of the medical conditions seen in these neonates are preventable or treatable.

Oyedeji [9] has stated that teenage unmarried and unemployed parents such as were recorded in the present study are problem parents. They are often emotionally and intellectually immature and unable to cope successfully with the demands of parenthood. Their marriages are often unstable and their children restricted in their developmental potential [9, 10].

The fact that most of the deliveries in this series were spontaneous vertex deliveries and a minority by Caesarean section is consistent with previous studies [4-6]. The low rate of operative deliveries amongst teenage pregnancies is a welcome finding because operative deliveries cost more than normal deliveries, and this would be an additional problem for these parents for whom money is a serious constraint. Furthermore complications arising from operative injuries such as vesico-vaginl fistula (VVF) are less. The fact that most babies had a normal birth weight also indicates that foetal nutrition was good during pregnancy.

Support for the baby and mother was noted to be poor in the present study as close to half of the newborn babies care was borne by their grandparents and other persons different from the father of the newborn baby. This issue needs to be given more attention for good outcome in the most negatively affected groups of people when it comes to teenage pregnancies. Some of the mothers showed signs of depression post-delivery and this may be due to the poor support. Previous studies have also reported similar rates of depression arising from poor pre-conceptual care and support for the new mother [10].

In conclusion teenage pregnancy is still a common public health problem in Nigeria. Poor awareness of contraception was common amongst mothers, thus suggesting that increasing the awareness on contraception and making it accessible to teenagers may reduce the prevalence of this condition. Increased supportive care for both mother and baby is also important for a good outcome. The extended family system may help with this as indeed it has provided the much needed succour in the present series.

Conclusion

What else can be done to reduce frequency of teenage pregnancy or ideally to prevent it altogether? The best means of doing this according to Oyedeji [9] is through education and that both the homes and the schools should be motivated to be seriously involved if this is to succeed. Pornography and other sexually arousing materials and events have to be checked too by enforceable government law. To merely preach abstinence and treat sexual intercourse and education as taboos among young people cannot help. Young people should be provided with sound information on sex, reproduction, relatioships and responsibilities. The churches and religious bodies should help too so that the ignorant and erroneous views which young people hold on their likelihood of becoming pregnant can be dispelled.

Sex education and parent craft should be accorded specific and important places in the school curriculum. Education at home and in schools should also include the subject of contraception. In short to obtain a low prevalence like the one recorded in Sweden earlier referred to, we have to go the Swedish way of implementing actively developed social, educational and health strategies which Sweden did.

References

1. Demetra-Gabriela Scolov, Magdalena Iorga, Alexandra Garauleanu, Ciprian Ilea, Iolanda Blidaru, Lucian Boiculese, Razan –Vladimir Socolov. Pregnancy during adolescence and associated risks: An 8 year hospital based cohort study (2007-2014) in Romania, the country with the highest rate of teenage pregnancy in Europe. Biomed Research International 2007 article ID9205016, 8 pages available at https//doi.org/. 10.1155/2017/9205016.
2. Tsi Njim, Valirie Agbor. Adolescent deliveries in semi-urban Cameroon: Prevalence and adverse neonatal outcomes. BMC Research Notes. 2017; 10:227 DOI 10.1186/s13104-017-2555-3.
3. Rahma Al-Haddabi, Majeda Al-Bash, Nadia Al-Mabaihsi, Naja Al-Maqbali, Tamima Al-Dhughaishi, Adel Abu-Heija. Obstetric and perinatal outcomes of teenage pregnant women attending a tertiary teaching hospital in Oman. Oman Medical Journal. 2014; 29:393-403
4. Njim T, Choukem SP, Atashili J, Mbu R. Adolescent deliveries in secondary level care hospital of Cameroon: a retrospective analysis of the prevalence 6year and adverse outcomes. J Pediatr Adolesc Gyneacol. 2016; 29(6):632-4
5. Fouelifack FY, Tameh TY, Mbong EN, Nana PN, Fouedija JH, Fouogue JT. *et al*. Outcome of deliveries among adolescents at the Yaounde central hospital. BMC Pregnancy Childbirth. 2014; 14:102.
6. Ramus Birch Tyrberg, Marie Blomberg, Preben Kjolhede. Deliveries among teenage women-with emphasis on incidence and mode of delivery: a Swedish national survey from 1973 to 2010. BMC Pregnancy and Childbirth. 2013, 13:204 available at

http//www.biomedcentral.com/147 – 2393/13/204.
7. Okuyelu OA, Ajayi IO, Okedare AO. Teenage pregnancy and family chractheristics as seen among teenagers presenting at two hospitals in Ibadan, Nigeria. Nigerian Journal of Family Practice. 2017; 8(4):57-66.
8. Kawakita T, Wilson K, Grantz KL, Landy HJ, Huang CC, Gomez-Lobo V. Adverse maternal and neonatal outcome in adolescent pregnancy. J Pediatr Adolesc Gynecol. 2016; 29: 130 -136. doi: 10.1016/ jjpag.2015.-8.006.
9. Oyedeji GA. School age pregnancies in western Nigerian: parents and products. Annals Trop Paedr. 1984; 4:31-35.
10. Hodgkinson SC, Colatuoni E, Roberts D, Berg-Cross L, Belcher HME. Depressive aymtomps and birth outcomes among pregnant teenagers. J Pediatr Adolesc Gynecol. 2010; 23(1); 16-22 doi:10.1016/jpag.2009.04.006.