

Outcome of Deliveries Among Adolescent Girls at The SOS Kara Mother And Child Hospital : Clinical Aspects, Epidemiology And Prognosis

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Abstract

Background: Pregnancies and childbirths previously widely accepted among teen girls are universally frowned upon these days owing to the health hazards they pose to young mothers and their newly-borns. The World Health Organization estimates that a teenage mother has a 50% chance of dying during childbirth. The purpose of this study is to analyse the epidemiological and clinical aspects and to carry out a diagnosis and prognosis of teenage births at the Mother and Child SOS Hospital.

Method: The study was carried out over a five-year period extending from January 2018 to December 2021 covering descriptive and retrospective aspects of teenage girls aged from 10 to 19 years at the child and mother SOS hospital

Results: The prevalence of pregnancies among the patients under review was 5.18%. The average age of the teens involved was 17 years with 67% aged between 18/19 years. 47% of the group was made up of school girls with a level of education not exceeding secondary school for 40% of them. 52% of the patients attended at least four prenatal examinations and 98% of the patients did not develop any pathology during their pregnancies. 90% of them had natural births and the rest delivered their child through C-sections. 26% of the mothers endured acute fetal distress and 19% suffered from narrow pelvis. The main maternal complication was post-partum tear of the perineum among 26% of the mothers. 15% of the babies had very low birth weight. The Apgar score was below 7 for 4% of the newborns at the first and fifth minute. Three babies were still born and the rate of perinatal mortality was 1.09%.

Conclusion: There is clear evidence of existing of risks relating to precocious pregnancies and child births among teens but they seem to occur as much as a result of unfavorable socioeconomic and sanitary determinants as from factors of biological immaturity. The prevention of these obstetrical risks point to the need to pay more attention to the pregnant teen through the provision of adequate and specifically targeted prenatal, perinatal and postnatal care.

Keywords: Child birth, Teenagers, Mother and Child SOS Hospital, Kara

Introduction

The adolescent period is defined as the transitional period before

adulthood and occurring between the ages of 10 to 19 years old [1].

Most adolescents start sexual intercourse early, which leads to un-

wanted pregnancy and other sexual and reproductive health (SRH) problems [2, 3]. Approximately 16 million adolescents aged 15–19 years old give birth each year in developing regions and are account for 11% of births worldwide [4, 5]. The highest prevalence of adolescent pregnancy is found in the sub-Saharan African region, with birth rates of 101 births per 1000 females aged 15–19 years in 2018, higher than the global adolescent birth rate of 44 per 1000 [6]. They are predisposed to obstetric complications such as obstructed labour, genital tract fistulae, postpartum haemorrhage, pre-eclampsia and anaemia more commonly observed in developing countries where rates of adolescent pregnancy are far higher. Adolescent's newborns are risk for preterm birth, low Apgar score, low birth weight (LBW) and early neonatal deaths [7-12]. Although those studies reporting several adverse outcome, some studies have not found an association for some adverse birth outcomes [13, 14].

Such as sub-Saharan Africa countries, Togo is also characterized by a high proportion of adolescents engaged in reproductive life with a high adolescent pregnancy rates 17%, including 7.3% of girl mothers under 18 [15, 16]. Studies in the south of the country have reported complications of pregnancy and childbirth in adolescents [15, 17]. In the northern part of the country, no study has yet been done to assess the prognosis of adolescent childbirth. We therefore proposed to carry out this study, whose aim is to study the epidemiological, clinical, and prognostic aspects of adolescent childbirth at the maternity ward of the SOS Village Kara Mother and Child Hospital.

Material and Methods

This was retrospective and descriptive study, conducted in Child and mother hospital SOS Kara from January 2018 to December 2021. Participants. The sampling method was exhaustive. The el-

igibility criteria for participants were: All parturients aged 10 to 19 years who gave birth at 28 weeks of amenorrhea or more were included in the study. The exclusion criteria were adolescents who had admitted for abortion (gestational age < 28 weeks) or adolescents who had given birth outside hospital and were admitted secondarily. We had identified all records of adolescent girls who met the inclusion criteria. A total of 276 files were collected. A questionnaire was used to collect data from obstetric records, delivery and neonatal registers. Variables of study were sociodemographic data, ante natal care, data about labour and maternal outcomes (perineal tear, episiotomy, caesarean section, assisted vaginal delivery post-partum complications), perinatal outcomes (prematurity, term labour, post-term labour, birth weight, newborn weight, APGAR score table, foetal issue). Data collection. Data on prepartum, intrapartum and postpartum characteristics of participants, were collected from obstetric maternal register and newborn's records. The data were analysed and processed using Epi info 7.2, Word 2013 and Excel 2013. The confidentiality of the information contained and collected in the surveyed files was guaranteed by respecting the anonymity of the patients.

Results

Frequency

During the study period, 276 adolescent girls gave birth out of 5328 deliveries, a frequency of 5.18%.

Sociodemographic Data

The average age of the adolescent girls was 17.7 years with extremes of 14 and 19 years. The adolescents had a variety of occupations. High school graduates accounted for 39.86% of the cases, 47.46% of which were secondary school graduates. Primiparous women represented 92.40% of the cases. Table I shows the distribution of adolescents according to socio-demographic data

Table I : Distribution of adolescents according to socio-demographic data

	Number	Percentage (%)
Age(year)		
14	2	0,72
15	11	3,99
16	18	6,52
17	60	21,74
18	105	38,04
19	80	28,99
Total	276	100
Occupation		
Students	117	42,40
Unemployed	75	27,17
Hairdressing/ tailor Apprenticeship	43	15,58
A seller	40	14,49

Government employees	01	0,36
Totale	276	100
Educational level		
No formal education	57	20,65
Primary	81	29,35
High school	131	47,46
Tertiary	7	2,54
Total	276	100
Gravida		
Gravida 1	239	86,60
Gravida 2-3	37	13,49
Total	276	100
Parity		
Para 1	255	92,40
Para 2-3	21	7,60
Total	276	100
Marital statut		
Single	230	83,33
Housewide	46	16,67

Antenatal Care And Data About Labour

Pregnancy was generally well monitored, with 30.80% and 40.95% of adolescents having attended three prenatal consultations (ANC) and more than four ANC, respectively. In 97.83% of cases, no pathology was reported during the pregnancy. Data about labour were notified in the following table

Table 2 : distribution of adolescents according to labour data

	Number	Percentage (%)
Types of hospital admission		
Self referred	272	98,55
Referral	04	1,45
Total	276	100
Stage of labour		
Latent phase	205	74,28
Active phase	71	25,72
Total	276	100
Amniotic sac statut		
Intact	225	81,52
Ruptured	51	18,48
Total	276	100
Fetal presentation		
Cephalic	271	98,19
Breech	05	1,81
Total	276	100
Fetal heartbeat		
Present	273	98,91

Absent	03	1,09
Total	276	100

Maternal And Perinatl Outcome

Delivery was performed at full-term in 84.78%. Pre-term delivery was notified in 6.16%. The vaginal birth was the main mode of delivery in 90.22% of cases, including 9.46% of vacuum extraction. Caesarean section was performed in 9.78% of cases. The indications for caesarean section were mostly fetal asphyxia (25.93%) and pelvic immaturity (18.52%). After vaginal delivery, the perineum was intact in 63.56%, spontaneous tearing was noted in 22.67% despite an episiotomy being performed in 13.77% of cases. Maternal postpartum complications were i postpartum haemorrhage (1.45%) and endometritis (0.36%). No maternal deaths were recorded.

Regarding the neonatal prognosis, 96.38% of the newborns had an Apgar score of more than 7 at the fifth minute. The mean weight was 2870 grams with extremes of 850gr and 4280gr. Three stillbirth were recorded in our study (1.09%)

Discussion

Limitation of the study

This study has several limitations. The study was conducted in a hospital located near two large referral hospitals that receive more complicated cases. This may therefore influence the result. Another limitation of the study is that it was carried out in a single hospital in the north of the country and cannot be used to generalise to the rest of the country. Nevertheless, the result seemed satisfactory and gave us an idea of the prognosis of adolescent birth in northern Togo. The conclusions of this study will be used to develop a strategy for the management of adolescent pregnancy and childbirth.

Frequency

The frequency of childbirth among adolescents in our study was 5.18%. Our finding are consistent with previous studies conducted in Congo by Lem E et al., in Togo by Adama-hondegla et al. who reported respectively, 4% and 3.66%. But less than the study of Vasconcelos A et al. (20,1%) in Sao Tome and Principe [17-19]. This difference in frequency in the studies could be due to the diversity of socio-cultural and religious factors in the countries and regions surveyed. For example, in some cultural contexts, the ability to procreate is not linked to age but to the onset of menstruation and the physical development of the girl, which leads to early marriage. According to the WHO, socio-cultural and economic constraints mean that 19% of girls become pregnant before the age of 18 and 95% of the children of adolescent mothers are born in developing countries [20, 21]. Nowadays, the development of social networks and internet is increasingly involving teenagers in sexual life while ignoring contraceptive methods [22].

Aspects Socio-Demographiques

The mean age of 17.7 years with a minimum age 14 years old in our finding was consistent to previous studies in Togo (17 years), Sao Tome and Principe (17,42 years, youngest aged 14 years),

Democratic Republic of Congo (17,6 years) and Cameroon (17.78 years, youngest aged 13 years) [17, 19, 23, 24]. There are a number of factors that may explain this situation. Firstly, sexual urges in teenage years and the negative influence of social networks and the internet. Talking openly about sexuality within the family remains a taboo subject in our cultures. And so the lack of communication exposes teenagers to risky sexuality, which can lead to early pregnancies.

It is therefore necessary to raise awareness among young people about unsafe sex, the promotion of contraception and the appropriate use of social networks. The study showed that the majority of them were students (42.40%), similar to the findings in Togo (52,1%), and Cameroon (52.6) [15, 24].

This prevalence of pregnancy in the school environment is due to bad company and to followership in schools that influence sexuality. Also, the under-use of contraceptive methods despite the numerous awareness-raising sessions that are organised in schools and on the media by non-governmental organisations (shame, geographical accessibility, financial means). According to gravida and parity, most of them were primigravida (86.60%) and primipara (92.40%), which are also rappedorted in similar studies in Togo by Adama-hondegla A. and al (80.9% primigravida and 90.2% primipara) and Aboubakari A. and al (97.26% primipara), in Cameroon by Florent Ymele Fouelifack F. and al (.76.5% Primigravida, 90.0% primipara), in Nigeria by Ezegwui and al (78.3% primipara) [15, 17, 24, 25].

Antenatal Care

Almost half of adolescents (40.95%) had attended at least four prenatal visits, similar to that found in the south of the country (52.2%) or in Niger, where an average of four were performed [17, 26]. However, elsewhere in Sao Tome and Principe, there are reports 85.4% of more than four prenatal visits without difference from older group [19]. According to WHO, pregnant adolescents in coming low countries often arrive late at antenal care or do not even come for it because they are unaware of importance of antenatal care, lack family or social support, or cannot afford the services, sometimes because of unkind remarks by health workers [27]. Antenatal care provides an opportunity for pregnant women to benefit from preventive measures to reduce the various complications of pregnancy and childbirth.

Maternal And Perinatal Outcome

Almost all adolescents (97.83%) had not had any pathology during their pregnancy. Only 1.45% of them had experienced pre-eclampsia. Several previous African studies have reported an increased susceptibility to pathological pregnancy such as pre-eclampsia and eclampsia (3.6% to 20%), hypertension, anaemia (46.3%) or malaria (4.9%) in adolescents [17, 23, 28-31]. This susceptibility to pregnancy-related complications is thought to be linked to biolog-

ical, endocrine and immunological immaturity in adolescence, and the lack of prenatal care. Hence the importance of raising awareness of contraceptive use in this age group. Also, a better outcome of pregnancies depends on the provision of good quality prenatal care.

Vaginal delivery was performed in 90.22% of cases, including 9.64% by vacuum. Caesarean section was performed in 9.78% of cases. The caesarean section rate found in our study remains better than that reported by Aboubakari A. et al. (35.6%). There is no unanimity on the route of delivery for adolescents. Earlier studies in Cameroon reported 85.2% vaginal delivery and 14.8% cesarean delivery without significant difference between the age-group specific rates of cesarean and vaginal deliveries, and instrumental deliveries [15, 24]. In studies from Niger and the Democratic Republic of Congo, adolescents were statistically more likely to deliver by caesarean section [23, 26]. Physical immaturity of the adolescent girl, especially her pelvis, would be dystocia factor. In contrast, adolescent girls in Ethiopia were 57% less likely to have a caesarean section than adult women, 81% less likely to have a forceps delivery, and 56% less likely to have an assisted vaginal delivery [31].

Perineal tears were observed in 22.67% of cases, despite episiotomy in 13.77% of cases. The results obtained previously in Togo (9.6%-10.8%), or in the Democratic Republic of Congo (10.0%) [Luhete] were lower than ours [15, 17]. Apart from the immaturity of the perineum, the high rate of perineal tear in our study may also be due to the fact that the study was conducted in a university hospital where student midwives are trained and do not have good practice in perineal protection, and to the fact that episiotomy was rarely performed in this hospital. Thus, because of their developing and rigid perineum, they are more likely to have episiotomies than non-adolescents with practice rates ranging from 8.2% to 30.5% [23, 24, 26, 31, 32].

Post-partum haemorrhage was noted in 1.45% of cases comparable to that reported in Ethiopia (1.6%) but less than finding in Togo (6.8%) Previous studies did not report an increased risk of postpartum haemorrhage in adolescents, but rather a lower risk compared to non-adolescents [15, 31]. As almost all adolescents are primiparous, their uterus still retains all the characteristics of a good retraction after delivery, thus preventing haemorrhage [24, 31].

There were no maternal deaths in this study as elsewhere in Niger, Sao Tome and Principe [19, 26]. But in an earlier study in southern Togo, 3.4% maternal deaths were reported [17]. Apart from socio-economic constraints, these teenage deaths are also linked to the fact that they have more complications during pregnancy such as pre-eclampsia.

Delivery was performed at full-term in 84.78%. Pre-term delivery was notified in 6.16%. Regarding gestational age at delivery, findings are contradictory. Earlier studies found a high risk of prematurity in teenagers, while others reported no difference compared to adults [19, 24, 25, 33, 34].

In 96.38%, the APGAR score was greater than 7 at 5 minutes. The mean weight of the newborns was 2870 grams with 14.86% of the

newborns having low birth weight. Three perinatal deaths were recorded (1.09%). Previous studies in Togo reported an APGAR score of more than 7 at 5 minutes in 76.7% and 93% of cases, a mean weight of 2902 grams and 3056 grams, and a perinatal death rate of 9.04% [19, 20]. When comparing perinatal mortality and morbidity of newborns of adolescent mothers and adults, the findings are discordant. Thus, some authors reported a high risk of low birth weight and perinatal death in adolescent mothers [23, 35, 36]. On the other hand, others did not find an association between young maternal age and neonatal morbidity or mortality [26, 19].

The physical immaturity of the still hypoplastic uterus and the inadequate supply of the nutritional and dietary requirements necessary to satisfy two growing bodies (that of the adolescent and that of the foetus) is often blamed for premature birth and low birth weight

Conclusion

Adolescent pregnancy is an important public health problem, particularly in low incoming countries. The prevention of obstetric complications in adolescents requires more attention to the young age and inexperience of the pregnant adolescent through a combination of sex education and awareness of contraceptive methods. The midwife, as a front-line professional, must be aware of the psychosocial context and obstetric peculiarities of adolescents in order to provide adolescents with specific and adequate prenatal, perinatal and postnatal care.

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