

Maternal Outcome among Women Presented with Teenage Pregnancy attended at a Tertiary Care Hospital in Dhaka City

Sherajum Munira¹, Naheed Fatema², Jannatul Ferdous Runa³, Nasim Iftekhar Mahmood⁴

¹Sherajum Munira, Medical Officer, Department of Obstetrics & Gynecology, Kurmitola General Hospital, Dhaka, Bangladesh; ²Naheed Fatema, Assistant Professor, Department of Obstetrics & Gynecology, Bangladesh Medical College Hospital, Dhaka, Bangladesh;

³Jannatul Ferdous Runa, Medical Officer, Department of Obstetrics & Gynecology, District Hospital, Lakshmipur, Bangladesh;

⁴Nasim Iftekhar Mahmood, Junior Consultant (Anesthesia), District Sadar Hospital, Lakshmipur, Bangladesh

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Abstract

Background: Teenagers face greater risk of pregnancy than the woman in their adulthood. **Objective:** The purpose of the present study was to see the maternal outcomes of women presented with teenage pregnancy. **Methodology:** This cross-sectional study was performed in the Department of Obstetrics and Gynecology at Kurmitola General Hospital, Dhaka, Bangladesh for a period of six months from March 2019 to September 2019. The teenage mothers with the age group of 13 to 19 completed years at delivery who were admitted to the Department of Obstetrics and Gynecology were included in this study. On admission, diagnosis was established by history, presenting complaints, physical examination, per-abdominal examination and per-vaginal examination. Complications during pregnancy and labour, mode of delivery, post-partum complications and perinatal outcome were noted. **Results:** A total number of 100 teenage mothers were recruited for this study. During this study period, 74.0% mothers were aged 18 to 19 years. About 52.0% cases of teenage mothers were suffered from various complications during pregnancy and labor and among them, anemia was in 21.15% cases; UTI was in 3.84% cases; PE was in 17.31% cases; eclampsia was in 3.84% cases; PROM was in 15.38% cases; CPD was in 5.76% cases; prolonged labor was in 93.34% cases; obstructed labor 6.66% cases and preterm labor 15.4% cases. Their modes of delivery were vaginal delivery 63%, caesarean delivery 39%. Among them, indications of caesarean delivery were PROM with Fd 30.77% Gross IUGR with FD 12.82% cases prolonged labor 10.26%, obstructed labor 2.56%, CPD 7.69%, eclampsia 5.13% cases. 57% of teenage mothers suffered from postpartum complications. Among them, PPH was 28.07% cases, inadequate lactation 10.53% cases, Post spinal headache 10.53% cases and wound infection 10.53% cases. **Conclusion:** In conclusion the most common maternal complication are anemia, UTI, PE, eclampsia, PROM, CPD, prolonged labor, obstructed labor and preterm labor. [Journal of National Institute of Neurosciences Bangladesh, July 2022;8(2):185-188]

Keywords: Teenage pregnancy; maternal outcome; eclampsia; PROM; CPD; prolonged labor

Correspondence: Dr. Sherajum Munira, Medical Officer, Department of Obstetrics & Gynecology, Kurmitola General Hospital, Dhaka, Bangladesh; **Email:** s_munira@ymail.com; **Cell No.:** +8801710163666; **ORCID ID:** 0000-0001-8491-5774

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Introduction

Teenage pregnancy occurs in an adolescent¹. Complication from pregnancy and childbirth are the leading cause of death in young women aged 15 to 19

years in developing countries². An estimated 70,000 adolescent mothers die each year in the developing countries because they have children before they are physically ready for parenthood³. It is well known that

pregnancy in adolescent has an increased risk of adverse reproductive outcome.

Teenage mothers are associated with high rate of maternal complications particularly in developing countries with limited obstetric facilities⁴. These mothers are at increased risk of premature birth, LBW, prenatal and infant mortality rate, they also have increased risk of maternal anemia, urinary tract infection (UTI), PIH, pre-eclamptic toxemia, eclampsia and premature onset of labour⁵. Moreover, all age group of adolescents had higher risk of eclampsia, post-partum haemorrhage, puerperal endometritis, operative vaginal delivery, episiotomy, low birth weight, preterm delivery and small for gestational age infants⁶. Adolescent mothers are unable to take proper care of themselves and their children⁷. The prenatal care should provide education and support for young women in an active and developmentally appropriate environment. The purpose of the present study was to see the maternal outcomes of women presented with teenager pregnancy.

Methodology

Study Settings and Population: This cross-sectional study was performed in the Department of Obstetrics and Gynecology at Kurmitola General Hospital, Dhaka, Bangladesh for a period of six months from March 2019 to September 2019. The teenage mothers with the age group of 13 to 19 completed years at delivery who were admitted to the Department of Obstetrics and Gynecology were included in this study by non-random convenience sampling who fulfill the selection criteria. Teenage pregnancy with the age group of 13 to 19 years with cephalo-pelvic disproportion, postdated pregnancy, premature rupture of membrane (PROM), intrauterine growth retardation (IUGR), preterm labor, preeclampsia, eclampsia, GDM, APH, Fetal anomaly, malpresentation and multiple pregnancy were included in this study. Teenage Pregnancy with previous scar in uterus, mother with major illness existing from pre-pregnant state like heart or kidney disease, bronchial asthma, DM, HTN, thyroid disorder, connective tissue disorder were excluded from this study. This study was approved by the institutional review board (IRB) of this hospital.

Study Procedure: Enrollment of patients was done by consecutive sampling of all teenage mothers who fulfilled the selection criteria and gave consent to participate in this study. On admission, diagnosis was established by history, presenting complaints, physical examination, per-abdominal examination and

per-vaginal examination. A predesigned data collection sheet was used and relevant personal history, past history, family history, socio-economic history, obstetrics history, menstrual history and contraceptive history were recorded. Complications during pregnancy and labour, mode of delivery, post-partum complications and perinatal outcome were noted.

Statistical analysis: Statistical analysis of the results was obtained by using windows based computer software devised with Statistical Packages for Social Sciences (SPSS-15) (SPSS Inc. Chicago, IL and USA). The continuous data were expressed as mean \pm SD. The categorical data were expressed as frequency and percentage.

Results

This study was conducted to find out fetomaternal outcome of teenage pregnancy among the patients admitted in KGH. Total one hundred patients were included in this study. The highest proportion of the patients are in the age group of ears 18 to 19 Years which was 74 out of 100 number of patients. The percentage was 74% cases (Table 1).

Table 1: Distribution of Teenage Patients by Age (n=100)

Age Group	Frequency	Percent
Less Than 17 Years	10	10.0
Less Than 18 Years	16	16.0
18 to 19 Years	74	74.0
Total	100	100.0

About 76.0% cases of teenage mothers got themselves admitted in the hospital at gestational age between 37 to 42 weeks (Table 2).

Table 2: Teenager Mothers according to Gestational Age during Admission (n=100)

Gestational age during admission	Frequency	Percent
Less than 28 weeks	2	2.0
28 to 37 weeks	16	16.0
37 to 42 weeks	76	76.0
More Than 42 weeks	6	6.0
Total	100	100.0

About 52.0% cases of teenage mothers suffered from complications. Among them anemia was found in 21.15% cases; PIH was in 17.30% cases; eclampsia was in 3.84% cases; PROM was in 15.38% cases (Table 3).

Table 3: Distribution of Teenager Mothers according to Complication during Pregnancy (n=52)

Complications	Frequency	Percent
Anemia	11	21.15
UTI	2	3.84
GDM	2	3.84
PIH	9	17.30
Eclampsia	2	3.84
Preterm labor	8	15.38
Mal presentation	3	5.76
CPD	2	5.76
PROM	8	15.38
IUGR	2	3.84
IUD	2	3.84
Total	52	100.0

UTI=urinary tract infection; GDM=gestational diabetes mellitus; PROM=premature rupture of membrane; IUD=intrauterine death; CPD=.....; PIH=.....; IUGR=intrauterine growth retardation

About 15.0% cases of teenage mothers suffered from complication during labor. Among them, 93.34% cases were in prolonged labor and the rest 6.66% cases were reported the obstructed labor (Table 4).

Table 4: Distribution of Teenager Mothers according to Complication during Labor

Complications	Frequency	Percent
Prolonged	14	93.34
Obstructed labor	1	6.66
Total	15	100.0

About 57% cases of teenage mothers suffered from post-partum complications. Among them 28.07% cases had PPH; 10.53% cases had inadequate lactation; 10.53% cases had sepsis and 10.53% cases had wound infection (Table 5).

Table 5: Distribution of Teenager Mothers according to Post-Partum Complication (n=57)

Post-Partum Complications	Frequency	Percent
PPH	16	28.07
Inadequate lactation	6	10.53
Puerperal sepsis	6	10.53
PPE	4	1.75
Wound infection	6	10.53
Post-partum spinal	6	10.53
Puerperal	2	3.51
UTI	4	7.02
Others	10	17.54
Total	57	100.0

Discussion

Early marriage and early childbirth has more detrimental effect on the health of girls⁸. The present study was done among one hundred teenage patients admitted in Obstetrics and Gynecology department in Kurmitola General Hospital, Dhaka, Bangladesh which was a 500 bedded tertiary level hospital. Thus, the present study reflects well about the adverse outcome of teenage pregnancies who attended in this referral hospital. For age distribution of teenage mothers, three comparison groups had been identified. The maximum teenage pregnancy occurred in the age distribution between 18 to 19 years (74.0%) which is similar to the study of Roy et al⁹ in which 57% of pregnancy occurred in this age group.

Since the study was conducted among hospital teenage mothers, the cause of admission was to be emphasized. Only 36.0% patients were admitted for full term pregnancy with labor pain, the rest 64% were admitted for pregnancy related complications signifying increased frequency of complications among teenage mothers. These included prolonged labor (93.34%), obstructed labor (6.66%), eclampsia (3.84%), preterm labor (15.38%) and pre-eclampsia (17.30%). Kimura et al¹⁰ have also showed that teenage pregnancy have more risk of pre-eclampsia (4.3%), eclampsia (4.9%), preterm labour (26.1%). Incidences of PIH, Severe PE, eclampsia and PTL in teenage mothers were found to be significantly higher. This is in accordance with earlier studies¹¹⁻¹³.

In this study, post-partum complications following delivery were more common in teenage group. In this study, incidence of Anemia and Urinary tract infection was more common among teenage mother which is similar to the study by Pal et al¹⁴ and Jolly et al¹⁵. Poor nutritional status and immaturity of immune system have been suggested a probable cause. The rate of caesarean section is high among teenage pregnancies. Frequency of operative vaginal delivery and induced vaginal delivery are also high. This could be linked either to incomplete physical development and or to the local obstetrical practices and choices. In this study 39.0% teenage mothers had LUCS, 63.0% cases had vaginal delivery. The indications of LUCS in this study were Severe PE 18.19%, prolonged labor 10.26%, CPD 7.69% cases, eclampsia 5.13% cases, PROM 30.77% cases. This result coincides with the study of Bacci et al¹⁶. In another study¹⁷ the rate of LUCS was 30.9% cases among teenage group and indication for LSCS were fetal bradycardia, pre-eclampsia, premature rupture of membrane and malpresentation.

Still, young teenagers are the only group of women who even in a developing country may perceive pregnancy as a negative event. This may be an important factor in strengthening the efficacy of the programs of health education, reproductive education and family planning whose priority clearly emerges not only in relation to perinatal outcome but also reduce maternal morbidity significantly.

Limitations of the study: Most of the people are not aware of available health facilities. They only attend the hospital when complications arise. So, from this small percentage of population who attended the hospital, exact situation of teenage pregnancy of our country could not be ascertained. Hospital stay is only for a short period due to various reasons including shortage of beds. So, the entire maternal, perinatal and postnatal complication could not be estimated. Some of the patients were in the hospital for the first time and without any antenatal checkup. In such cases no investigation was available.

Conclusion

In conclusion the most common maternal complications are anemia, UTI, PE, eclampsia, PROM, CPD, prolonged labor, obstructed labor and preterm labor. In addition there are many post-partum complications which are post-partum haemorrhage, inadequate lactation, sepsis and wound infection. More emphasis should be given on further reduction of teenage pregnancy either by awareness, education, delaying the age of marriage or by increasing the use of any contraceptive method. In case when there is a pregnancy occur during teenage, there should take special care & regular antenatal checkup should ensure so that the major complications can be adequately dealt with.

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