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ORIGINAL ARTICLE

The Outcomes on Mother and Child in Teenage Pregnancies

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ABSTRACT

Objective: The goal of this research is to identify the risks to mother and child health when pregnant teenagers are adolescent.
Methods: 94 patients participated in this study. Patients were aged 14–40 years. Patients' demographics were recorded following written consent. The frequency of pre-eclampsia, gestational diabetes, and postpartum hemorrhage was determined. Both groups were compared for adverse outcomes (cesarean section, instrumental delivery, induction and prolongation of labor, hypertension). NICU admission, low birth weight, low Apgar score, and mortality were observed.
Results: In fetal outcomes, we found higher frequency of perinatal mortality, low birth weight and NICU admission in teen age pregnancy as compared to other group with p value <0.005. In maternal outcomes, frequency of anemia, pre-eclamspa, a post-partum hemorrhage and gestational diabetes were higher among cases of teenage pregnancy.
Conclusion: This study found that low birth weight, delayed intrauterine development, and premature neonatal critical care admission are rising. Teen pregnancy increases the risk of anemia, UTI, high blood pressure, and surgery.
Keywords: Post-Partum haemorrhage, Maternal outcome, Pre-eclampsia, Fetal outcome.

INTRODUCTION

The incidence of adolescent pregnancy is growing in developed countries, and the neonatal and mother outcomes are getting more unfavorable[1] Pregnancies among adolescents are caused by a number of different circumstances, and these variables can vary from one community to another. Despite the fact that it is frowned upon in many civilizations all over the world, teen pregnancy is a typical occurrence in unmarried adolescents in developing countries[2] The outcomes of pregnancy are far more detrimental for Pakistani young girls than they are for mothers of a more advanced age, as stated by a number of reports. When compared to moms who were not adolescents, the prevalence of anemia was shown to be three times higher among teenage mothers[3] In addition, young mothers had a body mass index (BMI) that was significantly lower before they were pregnant, were twice as likely to provide birth through the use of an instrument, and were three times more likely to suffer chorioamnionitis[4] A number of factors, including biological immaturity, unwanted pregnancy, inadequate prenatal care, inadequate maternal nutritional status, and stress, have been shown to have an impact on the results of neonatal and obstetric care. Adolescent pregnancy has been a source of worry. As a result of cultural, financial, social, and geographic factors, there is a correlation between adolescent pregnancy and inferior results for the pregnancy. There is a correlation between teenage pregnancies and a number of undesirable outcomes, including abortion, severe anemia, premature birth, pre-eclampsia, surgical and mechanical births, and cephalo-pelvic imbalance[5,6]

Adolescent pregnancy is associated with a number of risk factors, including but not limited to the following: early marriage, substance abuse, sexual violence, lack of availability of contraceptives, relatives with a history of adolescent birth, early sexual activity, lack of health services, limited maternal education, poverty, lack of parental support, child of a broken family, religious beliefs, lack of financial autonomy, social media, and pornography[7,8].

Pregnant girls have a higher risk of developing preeclampsia, preterm premature rupture of the membrane (PPROM), anemia, sexually transmitted diseases, operative vaginal deliveries (forceps/vacuum), postpartum depression, and maternal deaths (Figure 1)[9]. It is also more likely that they will experience an increased incidence of pregnancy-induced hypertension. Adolescent females who become pregnant face a number of challenges, including but not limited to the following: feelings of guilt, financial restraints, the inability to complete their education, and social shame[10]. Among adolescent pregnant women, it is anticipated that they may experience adverse newborn outcomes, which include low birth weight (LBW), preterm, stillbirths, early neonatal demise, tiny for gestational age, Apgar score at five minutes of less than seven, and a variety of congenital defects[10].

It is estimated that nearly 90 percent of all cases of teen pregnancy occur in underdeveloped nations[5]. The global incidence of teen pregnancy varies greatly. There are a number of reasons that contribute to the high prevalence of adolescent pregnancies in India[6]. These variables include early marriage, low literacy rates, a lack of sexuality education, and limited access to contraceptive health services. Women between the ages of 15 and 19 years old have a risk of maternal death that is twice as high as that of women between the ages of 20 and 24 years old, as stated by the World Health Organization (WHO). This highlights the important need for targeted interventions to enhance maternal and fetal outcomes in this vulnerable demographic[7].Providing antenatal care is an essential component in reducing the dangers that are connected with pregnancy in adolescents. The chance of difficulties during pregnancy can be considerably reduced by initiating and maintaining regular prenatal checkups, as well as receiving appropriate nutritional guidance[8]. Nevertheless, in spite of the well-established advantages, a significant number of teenage moms do not receive proper prenatal care, which results in decreased outcomes[1,12]. To develop successful methods to improve the health and well-being of both mothers and their infants, it is vital to have a thorough understanding of the feto-maternal outcomes that occur during pregnancies that occur in adolescents.

MATERIAL AND METHODS

The study was conducted in department of Gynae and Obs, DHQ Hospital, KDA Kohat during April 2022 to May 2023. In this comparative study 94 pregnant female were included. Comprehensive demographic information of the patients was recorded after written consent was received. This experiment did not accept patients who were less than 26 weeks pregnant or who had a history of chronic illness.

In order to determine the position, orientation, and appearance of the pregnancy, the women who were recruited underwent an abdominal examination. Two dimensions extend across the belly button. An ultrasound was performed to ascertain

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the gestational age, anticipate the foetal mass, volume, and placental amniotic fluid, and to exclude the possibility of no significant foetal locations. Group I and Group II each had an equal number of patients. The first group included 47 patients aged 14–18, while the second group included the same number of patients aged 18 and higher. We counted the occurrences of preeclampsia, gestational diabetes mellitus, and postpartum hemorrhage. Cesarean sections, instrumental deliveries, induction and prolongation of labor, hypertensive disorders, and other unfavorable outcomes were compared between the two groups. Results for the baby included newborn critical care unit hospitalization, low birth weight, low Apgar score, and perinatal mortality. The complete dataset was analyzed with the help of SPSS 26.0.

RESULTS

The patients' average age was 17.25±3.57 years and 27.67±10.22 years was the average age in group II. Majority of the cases in group I had body mass index <25kg/m^2. (table1).

Table 1: Age and body mass index among pregnant females

Variables	Teenagers (47)	Normal group (47)
Average age (years)	17.25±3.57	27.67±10.22
Body Mass Index		
<25kg/m^2	31 (65.95%)	17 (36.2%)
>25kg/m^2	16 (34.05%)	30 (63.8%)

In fetal outcomes, we found higher frequency of perinatal mortality, low birth weight and NICU admission in teen age pregnancy as compared to other group with p value <0.005.(table 2)

Table-2: Comparison of fetal outcomes

Fetal Outcomes	Teenagers (47)	Normal group (47)
Perinatal mortality		
Yes	10 (21.3%)	3 (6.4%))
No	37 (78.7%)	44 (93.6%)
low birth weight		
Yes	26 (55.3%)	14 (29.8%)
No	21 (44.7%)	33 (70.2%)
NICU admission		
Yes	15 (31.9%)	8 (17.02%)
No	32 (68.1%)	39 (82.98%)

Table- 3: Comparison of maternal outcomes

Variables	Teenagers (47)	Normal group (47)
Maternal Outcomes		
Pre-eclampsia	16 (34.04%)	10 (21.3)
Gestational Diabetes	22 (46.8%)	11 (23.4%)
Post Partum Haemorrhage	12 (25.5%)	6 (12.8)
Anemia	19 (40.4%)	8 (17.02%)

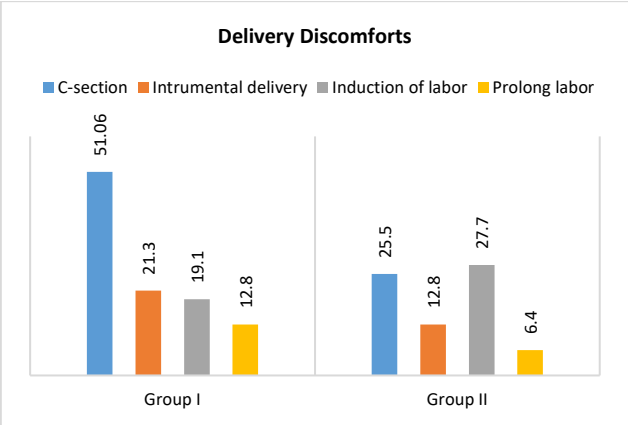

Figure-1: Comparison of discomforts among both groups

In maternal outcomes, frequency of anemia, pre-eclamspa, a post-partum hemorrhage and gestational diabetes were higher among cases of teenage pregnancy. (table 3)

As per delivery discomforts, C-section, Instrumental delivery, Induction of labor and Prolong labor was higher among teenage pregnant females.(figure 1)

DISCUSSION

The death rate among mothers and the morbidity rate among adolescents are two key public health concerns that are experienced by people all over the world. When compared to teen mothers, mature mothers were more likely to give birth naturally by vaginal delivery. On the other hand, young mothers were more likely to employ instrumental or optive cesarean section. Significant numbers of pregnant women in both groups did not obtain adequate prenatal care. This was the case for both groups. One of the likely explanations is that they are reluctant to seek medical attention, which is a phenomenon that is particularly prevalent among adolescents. Because of the refusal to have a child, there is also the possibility that reservations for adolescents will be delayed. as in[13] The findings of other research that are comparable to those of the current study provide more evidence that young mothers increase the chance of premature births. It is[14] In this region, there is a particularly high rate of adolescent pregnancy. According to the findings of this study, the average age of teen mothers was 17.25 years, with a standard deviation of 3.57 years. Due to the fact that the average age of teen mothers was 18.2 years, the findings are in agreement with those that were found by Paladugu RK et al.[15]. Abbas AM et al.[16] found that the average age of teenage mothers was 17.49 years, with a standard deviation of 0.63 years. On the other hand, the findings of Alves JG et al.10 indicate that 95.2% of the adolescents were placed somewhere between the ages of 16 and 19. For adolescents, the likelihood of becoming pregnant is higher in regions with lower levels of income than it is in regions with higher levels of wealth. This study highlights the importance of improving prenatal care in order to reduce the risk of preterm labor, which is a primary cause of neonatal morbidity and mortality. The high rate of preterm delivery in this study highlights the need for better prenatal care. When compared to the other group, we found that teen pregnancy was related with a higher frequency of perinatal mortality, low birth weight, and admission to the neonatal intensive care unit (NICU). However, the p-value for this association was less than 0.005, which indicates that it was statistically significant. There are a number of factors that contribute to the unfavorable outcomes of adolescent pregnancies[17] These factors include individual, familial, societal, cultural, and economic challenges, as well as inadequate access to healthcare, contraception, resources, and education.

An increased risk of maternal complications, such as anemia, preeclampsia, postpartum hemorrhage, and gestational diabetes, was found to be associated with pregnancies that occurred among adolescents. In particular, preeclampsia is a disorder that affects first-time mothers who are teenagers and is characterized by growing hypertension throughout pregnancy. This condition can have a negative impact on many organs and cause complications for both the mother and the baby[18] All an incompletely developed uterus and irregular menstrual cycles during pregnancy can lead to complications with decidualization, which in turn can lead to complications with deep placentation and the modeling of spiral arteries, all of which can result in preeclampsia. Preeclampsia is a condition that can be fatal[19] Researchers Vale de Almeidaet found that the risk of spontaneous preterm birth was higher among younger adolescents as compared to older adolescents in their study of 23,894 postpartum women and their newborn infants. This was discovered by comparing the danger posed by younger adolescents to that of older adolescents[20].

CONCLUSION

This study found that low birth weight, delayed intrauterine development, and premature neonatal critical care admission are rising. Teen pregnancy increases the risk of anemia, UTI, high blood pressure, and surgery.

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