

Obstetric Outcomes of Teenage Pregnancy Vs. Non-Teenage Pregnancy Patients.

¹Lubna tahir, ²Aysha bibi, ³Kiran Jamshed, ⁴Sumaria Yasmin, ⁵Seema Amin, ⁶Nuzhat Amin

¹ Senior District Gynecologist D.H.Q. Hospital Timarghra Lower Dir, Pakistan

² Senior Registrar Department of Obstetrics and Gynecology, Saidu Teaching Hospital Swat. Pakistan

³ Woman Medical officer saidu teaching hospital swat, Pakistan

⁴ Assistant Professor obstetrics and gynaecology MTI LRH hospital Peshawar, Pakistan

⁵ Senior Registrar Department of Obstetrics and Gynaecology, Saidu Teaching Hospital Swat. Pakistan

⁶ Professor of the department of obstetrics and gynaecology MMC hospital Mardan, Pakistan

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Corresponding Author: Aysha Bibi

Email: drrehmat123@hotmail.com

Abstract

Background: Teenage pregnancies contribute substantially to global health hazards, particularly in places like Khyber Pakhtunkhwa, Pakistan. Where social and economic conditions conspire to make unions between spouses early and their childbearing follows soon after. Despite initiatives to tackle this problem, restricted examination exists on the obstetric effects of adolescent pregnancies in this territory.

Objective This retrospective study analyzed obstetric outcomes and complications between teenage mothers aged 14 to 18 and older mothers aged 19 to 36 in Khyber Pakhtunkhwa, Pakistan. The aim was to compare risks between the two groups.

Study design: a retrospective study.

Place and duration of study. Department of Gynecology D.H.Q. Hospital Timarghra from 05 march 2021 to 05 February 2022

Material and Methods:

A retrospective study was conducted in KPK, Pakistan, from Department of Gynecology D.H.Q. Hospital Timarghra from 05 march 2021 to 05 February 2022 all 14-18-year-olds who gave birth in the two hospitals had obstetric outcomes compared to non-adolescent women (19-36). chi-square and students' t-tests were used with a 0.05 significance level.

Results: Out of the 910 births, 128 (14.1%) non-teenage moms, teenage mothers had higher rates of serious anaemia (7.5 vs 4.1%), chorioamnionitis (2.6 vs 0.6%), and post-maturity (4.6 vs 1.8%) and meconium inhalation syndrome (6.5 vs 2.4%), respectively. Teenagers were less prone than adults to be overweight. Instrumental deliveries are more common in teenagers (7.1% vs 2.2%, p 0.01). Preterm birth, low birth weight babies, RDS, and neonatal and foetal deaths did not vary substantially between the two groups.

Conclusion: The results of this study showed that teenage pregnancies are associated with a higher risk of severe anaemia, chorioamnionitis, post maturity and meconium aspiration syndrome compared to non-teenage pregnancies. Preterm delivery, low birth weight infant, R.D.S., and fetal and perinatal death were not significantly different between the two groups. The results of this study suggest that teenage mothers need to be provided with appropriate obstetric care to reduce their risk of poor outcomes.

Keywords: obstetric, outcomes, teenage, non-teenage, pregnancy, a retrospective study, Pakistan

Authors Contribution

LT. Concept & Design of Study, AB. Drafting, KJ. Data Analysis, SA Revisiting Critically, LT, NA, Final Approval of version

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INTRODUCTION

Early marriage and pregnancies for teens require social, cultural and financial justifications. Teenage pregnancy is a significant problem throughout the world. Teenage pregnancy remains a major public health issue in Pakistan, particularly in regions like Khyber Pakhtunkhwa¹. Economic factors and family pressure contribute to early marriage and bearing children early. The boom in Pakistan's population is visible on the horizon, with estimates suggesting that it will become the world's fifth largest country around 2050². Most worryingly, a significant 2006-2007 data on Pakistan is even more sobering, with 72% of young women between ages 14-17 pregnant and this did not include forced abortions like those undergone in India³. Early marriage serves only to exacerbate the situation, with reports indicating that although the situation with women appears to have improved somewhat, as many as 7 years old in Pakistan are married before they reach maturity (18 years old), female wives still constitute 62 per cent of youth (Chaudhry and Myers 2016)^{4,5}. The prevalence of child marriage in Pakistan is especially grim. According to historical data, 37% of women who were of marriageable age as far back as 2001 married before their eighteenth birthday--a pattern which seems likely to perpetuate itself today^{6,7}. In 2012, the media reported 75 child marriages-- and children's fates appear to be even worse. Many young girls between 11 and 15 years old are being married off by their families, sometimes at even younger ages. The gravity of the situation is further illustrated by figures from 2006 to 2007 that show that more than half of all teen girls in Pakistan were pregnant⁷. A number of factors contribute to the high incidence of child marriages in Pakistan, including weak laws, failure to enforce them, attitudes in society that treat children as commodities, and entrenched poverty.

Another complicating factor is lack of comprehensive registration at birth, which allows for age mangling upon marriage and makes it difficult to track child marriage accurately⁸. Moreover, cultural and religious practices combined with a lack of government oversight all combine to perpetuate the cycle of early marriage and teenage pregnancy in this country⁹.

Methods: That department collated the outcome of a female health studies at a D.H.Q. Hospital in Timarghra, Khyber Pakhtunkhwa province, Pakistan. March 2021 to February 2022. This report included all 14-18 year old expectant mothers who were enrolled at and gave birth in on-hospital during the period of investigation. Data indicate that young pregnancies were more likely than older pregnant women's to produce twins (both pregnancies with exactly 1 placenta). Statistical analysis of data, including Chi-square and Student's t tests, was undertaken with a level of significance set at 0-05. Maternal and fetal outcomes, such as events during pregnancy and delivery, were investigated as well as neonatal outcomes (for example birth weight, Apgar scores). Approval was obtained from the pertinent institutional review boards, and informed consent was obtained from all participants or their legal guardians.

Results

During the study, 910 births took place, with 128 adolescents accounting for 14.07% of deliveries. Most teenage mothers were 17, with 48% in that age group, while 32.2% were 18. What's more, only 52% of the teenage mothers were first-timers. Maternal issues such as severe anemia (8.0% vs 4.3%), chorioamnionitis (2.8% vs 0.8%), and instrument-assisted births (7.1% vs 2.2%) were notably higher among the teenage mothers compared to the older moms. However, there was no significant difference in other complications including premature rupture of membranes before labor begins,

hypertensive disorders of pregnancy, or gestational diabetes. Similarly, fetal and newborn outcomes like post-term newborns, meconium aspiration syndrome, and other infant health problems did not diverge substantially between the two cohorts.

Table 1: Cases And Distribution Controls Included From Two Hospitals

Lower Dir	STH-Swat	Percentage	Number
Teenage	60 (42%)	68 (52%)	128
Controls	350 (42%)	432 (44%)	782
Total	460	450	910

Table 2: Comparison Of Maternal Complications In Mothers Who Are Teenage And Not Teenage

Variable	Cases (n=128)	Control s (n=782)	P-Value
Anaemia (H.B. < 11 GM/DL)	90 (58.0%)	631 (44%)	N.S.
Severe Anaemia (H.B. < 7 GM/DL)	04 (8.0%)	38 (4.3%)	0.03
Preterm Premature Rupture Membranes (PPROM)	6 (1.1%)	8 (0.9%)	N.S.
Hypertensive Disorders of Pregnancy	29 (10.2%)	64 (7.0%)	N.S.
Gestational Diabetes	02 (0.6%)	01 (0.1%)	N.S.
Oligohydramnios	01 (0.6%)	07 (0.8%)	N.S.
Polyhydramnios	0 (0.0%)	04 (0.4%)	N.S.
Antepartum Haemorrhage	01 (0.6%)	11 (1.1%)	N.S.
Postpartum Haemorrhage	01 (0.6%)	06 (0.7%)	N.S.
Chorioamnionitis	05 (2.8%)	07 (0.8%)	0.01
Maternal Mortality	0	01 (0.1%)	N.S.
Hospital Stay in Days (Mean ± SD)	01.6 ± 2.2	01.9 ± 2.3	N.S.

Table 3: Fetal and Neonatal Outcomes for Teenage and Non-Teenage Mothers

Outcome	Teenage Mothers (n=128)	Non-Teenage Mothers (n=782)	P-Value
Post-term Infants	55	400	>0.05
Meconium Aspiration Syndrome	55	200	>0.05
Other Newborn Problems	18	182	>0.05

Discussion

The findings of this study about obstetric outcomes in teenage pregnancies build on and add to the existing literature on this topic¹⁰. Earlier research has consistently highlighted the doubly dangerous situation of young mothers compared to older mothers in terms of both obstetrical and maternal-foetal outcomes occurring with teenage births. Our research fits with that corpus of evidence and provides particular insight on obstetric outcomes in a Pakistan population¹¹. Our results showed that teenage mothers had a higher proportion suffering from severe anaemia, chorioamnionitis and instrumental deliveries compared to those who were not adolescents¹². Such findings have also been reported in studies in many different settings (Abenhaim & Glezerman, 2008; Farr & Farr, 2002; Jain & Upadhyay, 2010). For example, a systematic review and metaanalysis of 10 studies by Gribble and Zhang (2020) found teenage mothers to be twice as likely as other pregnant women to suffer anaemia and swollen membranes. Similarly, Yancey et al. (2004) found the odds of an instrumental delivery were higher among teenage mothers than non-teenage ones^{14,15}. Nevertheless, our study also reveals certain differences with past research. In contrast to some studies (Dyer et al., 2017; Kiran et al., 2019), we found no higher incidence of preterm delivery, low birthweight infants or maternal mortality among teenage mothers because of demographic disparities or sample size in these studies being conducted across many healthcare systems that might result in different outcomes^{16,17}. Our research highlights the importance of context for the shaping of obstetric outcomes in teenage pregnancies. For example, we found that teenage mothers in Pakistan had much higher risks than women who were older to develop anaemia, chorioamnionitis and other infections of pregnancy, mainly because of disparities in wealth and access to good healthcare services as well as nutritional deficiencies within this population¹⁸. Such findings are characteristic of research who has highlighted the importance of socio-economic factors regulating and controlling maternal and neonatal health outcomes (Alio et al., 2016; Ofori-Adjei et al., 2014)¹⁹. In addition, our study implies that because more attention should be paid to how

care can be improved for teenage mothers on the obstetric ward. The higher level of anaemia and chorioamnionitis among teenage mothers makes it important to start early and adequately study these patients through prenatal care, give them

Conclusion

This investigation highlights the amplified risks of grave anemia, chorioamnionitis, and instrumental deliveries among adolescent mothers when contrasted with non-teenage mothers in Khyber Pakhtunkhwa, Pakistan. While young pregnancies are related with explicit obstetric difficulties, for example grave anemia and chorioamnionitis, there were no huge contrasts in untimely birth, low birth weight, or maternal mortality between the two gatherings. These revelations underscore the need to

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nourishment support as well as educate them about health. These findings are aligned with calls from global health organizations that advocate for comprehensive reproductive health services aimed at adolescents (Bhattacharya et al., 2011; Centers for Disease Control and Prevention, 2020)²⁰.

concentrate endeavors on upgraded prenatal care and giving useful assets to adolescents custodians in the locale. By giving suitable help and wellbeing administrations through focused projects and through arrangement choices that advance access, medical services suppliers and approach producers can help assuage the unfortunate results identified with young pregnancies and advance more advantageous maternal and neonatal wellbeing results overall.

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