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# Obstetric Outcomes Of Teenage Pregnancy Vs. Non Teenage Pregnancy Patients. A Multi-Center Study .

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**ABSTRACT**

**Original Research Article**

**OBJECTIVE:** The Goal Of This Study Was To Examine The Obstetric Outcomes Of Teenage And Non-Teenage Pregnancies.

**MATERIAL AND METHODS:** A Multi-Center Study Was Conducted In Kpk, Pakistan, From March 2021 To 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:** Teenage Mothers Were More Likely To Have Severe Anemia (7.5 Vs. 4.1%) And Chorioamnionitis (2.6 Vs. 0.6%) Than Non-Teenage Mothers, And Their Infants Were More Likely To Have Post Maturity (4.6 Vs. 1.8%) And Meconium Aspiration Syndrome (6.5 Vs. 2.4%). Teenagers Were Less Likely To Be Overweight Than Adults. Teens Are More Likely To Have Instrumental Births (7.1% Vs. 2.2%, P 0.01). Preterm Delivery, Low Birth Weight Infant, RDS, And Fetal And Perinatal Death Were Not Significantly Different Between The Two Groups.

**CONCLUSION:** Anemia And Chorioamnionitis Are More Common In Teenage Mothers. Teenagers Are More Likely To Use An Instrument. Adolescent Moms Often Have Babies With Post-Maturity And Meconium Aspiration Syndrome.

**KEYWORDS:** Obstetric, Outcomes, Teenage, Non-Teenage, Pregnancy, A Multi-Center Study, Pakistan

## INTRODUCTION

Economic Survey of Pakistan 2019- 21 reports 184.35 million people and 2% growth. Pakistan will rank 5th in population by 2050. 39% are kids. Many females marry as young as 7 years old. In 2001, 37% of women married before 18; the same is feared today. In 2012, the media reported 75 child marriages; 43% were 11-15, and 32% were 6-10. 10-14-year-olds and 15-19-year-olds married in 2008- 2009. Minors marry without supervision. In 2006-07, over half of the teenage females in Pakistan were pregnant. Child and early marriage numbers are uncertain due to a lack of data. Since 1998, Pakistan hasn't done a marriage and age census. Pakistan's child marriages have several reasons. Weak rules, lack of enforcement, children being regarded as commodities/enslaved people, a tribal and feudal social structure, a lack of public knowledge about the bad effects of child marriages, severe poverty, internal trafficking, and a lack of government will are prominent causes. Ineffective birth registration contributes to child marriage. Never prioritizing female birth registration permits manipulating marital ages. No centralized, unbiased, or influential child rights organization monitors child marriages.

Pakistan's child brides and Non-

Muslim child marriages plague Pakistan. Religious minorities conduct and record marriages regardless of children's ages. The previous government lobbied coalition partners to pass the Hindu Marriage Bill 2011, which barred non-Muslim under-18 marriages. Kidnapping and exploitation "Parents sell or pressure children into marriage, forced labor, sexual exploitation, or domestic slavery, " except Sindh bans internal trafficking. Human trafficking is illegal under Pakistan's Sindh Child Protection Authority Act 2012. Early marriage causes Multiple factors to trigger Pakistani child marriages. Lack of public information on child marriage's negative effects, extreme poverty, and trafficking are major factors. Unreliable birth records cause child marriage. Never prioritizing birth registration for children, particularly females, allows age manipulation upon marriage. No central, impartial, or strong child rights authority oversees child weddings.

Child marriages in Pakistan: There is no legal structure for weddings or non-Muslim child marriages in Pakistan. Regardless of age, all religious minority groups conduct and register marriages according to their religion. The previous government lobbied coalition partners to pass the Hindu Marriage

Bill 2011, which barred non-Muslim under-18 marriages. Kidnapping, exploitation

Child marriages, forced labor, sexual exploitation, and domestic slavery are common. All except Sindh ban internal trafficking. This law prohibits human trafficking in Sindh. 14, 15  
Methods

The research was conducted at the hospital in Gira-lower dir and Saidu teaching hospital Swat Pakistan. Two ERBs approved the study.

13-19-year-old singletons were included. A control was a 20-35-year-old lady who delivered a singleton on the same day as the Multi-center case study. Hypertensive, diabetic, cardiac, renal, endocrine, or autoimmune women were eliminated. Anemia, hypertension, gestational diabetes, poly/oligohydramnios, antepartum/postpartum hemorrhage, ruptured uterus, and chorioamnionitis were compared. Low birth weight, congenital anomalies, meconium aspiration syndrome, RDS, neonatal hospitalization, and perinatal death. Inclusion-eligible women got counseling and approval. Measuring women showed their ethnicity, education, and prenatal care. Medical data showed maternal and fetal outcomes. A questionnaire collected mom, baby, and mom data.

When anemia, low birth weight,

malnutrition, obesity, low birth babies, preterm babies, fetal distress, meconium aspiration, illiteracy, antenatal care, etc., were taken in the range of 8 percent to 86 percent, the anticipated odds ratio for teenagers more than 5 percent level of significance. Input by two operators into SPSS (version 2.4). SPSS generated variable frequencies. The survey compared fetus and mother results. Statistical significance was determined using Chi-square and Student's t. 0.05

**METHODS:** A multi-center study was conducted in Kpk, Pakistan, from March 2021 to 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

There were 910 deliveries at the two hospitals during the study period, with n=128 (86%) being adolescent pregnancies. The total number of completed surveys from the two hospitals was 910 Lower dir 460 and STH-Swat 450, with 128 teenage pregnancies and 782 non-teenage pregnancies used as controls. The study only included married women. The mean ages of teen and non-teen mothers were 16.30.6 and 24.43.2 years. Majority (n=60; 48%) of teenage mothers were 17 years old, followed by 18 years (n=48; 32.2%). n=20 (9.7%) were 16 years old, with none younger. Only 52% of teen mothers were first-time moms. More than 28% had a second. Two hospitals' cases and distribution controls are

**Table-1: Cases And Distribution Controls Included From Two Hospitals.**

	LOWER DIR N (%)	STH-SWAT N (%)	TOTAL N=128 (%)
TEENAGE	60 (48%)	68 (52%)	128 (100)
CONTROLS	350 (42%)	432 (44%)	782 (86%)
TOTAL	460 (42%)	450 (38%)	910 (80%)

**Table-2: Maternal Complications In Teenage And Non-Teenage Mothers Are Compared.**

VARIABLE	CASES n (%)	CONTROLS n (%)	P- VALU E
ANAEMIA (HB < 11 GM/DL)	90 (58.0)	632 (44%)	NS
SEVERE ANAEMIA (HB < 7GM/DL)	04 (8.0)	39 (4.3)	0.03
PRETERM PREMATURE RUPTURE OF MEMBRANES (PPROM)	6 (1.1)	8 (0.9)	NS
HYPERTENSIVE DISORDERS OF PREGNANCY	18 (10. 2)	64 (7.0)	NS
GESTATIONAL DIABETES	2 (0.6)	1 (0.1)	NS
OLIGOHYDRAMNIOS	1 (0.6)	7 (0.8)	NS
POLYHYDRAMNIOS	0 (0.0)	4 (0.4)	NS
ANTEPARTUM HAEMORRHAGE	1 (0.6)	10 (1.1)	NS
POSTPARTUM HAEMORRHAGE	1 (0.6)	6 (0.7)	NS
CHORIOAMNIONITIS	5 (2.8)	7 (0.8)	0.01
MATERNAL MORTALITY	0	1 (0.1)	NS
HOSPITAL STAY IN DAYS, (MEAN±SD)	1.6±2.2	1.9±2.3	NS

(NS: Non-significant)

**Table-3: Fetal and neonatal complications in teenage and non-teenage mothers are compared.**

VARIABLE	CASES n (%)	CONTROLS n (%)	P VALUE
LOW BIRTH WEIGHT (< 2500 GM)	28 (20.5)	141 (18.2)	NS
PRETERM	22 (7.7)	47 (5.9)	NS
POST-TERM	7 (4.6)	14 (1.8)	0.02
FOETAL DISTRESS	14 (9.3)	55 (7)	NS
MECONIUM ASPIRATION SYNDROME	10 (6.5)	19 (2.4)	< 0.01
RESPIRATORY DISTRESS SYNDROME	2 (1.3)	18 (2.3)	NS
ADMISSION TO NEONATAL NURSERY	11 (7.1)	57 (7.3)	NS
CONGENITAL ANOMALIES	1 (0.6)	18 (2.3)	NS
STILLBIRTH	10 (6.5)	66 (8.3)	NS
NEONATAL DEATH IN HOSPITAL	1 (0.7)	11 (1.4)	NS

About 17% were having their third or more baby. Teenage moms had a lower mean BMI than non-teenage mothers (20.2 vs. 22.6, p 0.002). While the difference was not statistically significant, teens had greater literacy and prenatal care uptake than adults.

Groups' maternal problems are compared in Table-2. The majority of moms in both categories were lifeless, but severe anemia was twice as likely among pregnant teens. Chorioamnionitis is twice as common in teenagers. The two groups had similar pregnancy difficulties. Normal vaginal birth rates were similar, while cesarean section rates were lower for teens. This change was non-significant. Among teens, instrumental delivery was more common.

Table 3 illustrates fetal and neonatal outcomes for both groups. Post-term infants are more common in teenage pregnancies than non-teenage pregnancies (p0.05). Meconium aspiration syndrome was twice as common in cases vs. controls. Other newborn problems

did not show a significant difference in incidence.

## DISCUSSION

This multi-center research assessed maternal and fetal risks. This multi-center case study found maternal and fetal hazards of adolescent pregnancy. This may be Pakistan's first multi-university research. 16 Our survey revealed 4.6 percent of adolescent moms in lower dir and swat. 9 percent of adolescent pregnancy in Pakistan

According to studies, all parents in both groups were married, so pregnant teenagers had social support. Teen pregnancy is most common in Kpk (26/128, 24%) and Punjab (28%). Women from Pakistan and Sindh made up about 18% of the group. In illiteracy and prenatal care, teens fared better than adults. This contradicts data on teen moms' literacy and prenatal care. 14% of 128 pregnant teens were in their third or more pregnancy, showing contraceptive ignorance. 18

Maybe our women's nutrition. Teenage moms had greater anemia (7 g/dL). Their immaturity may be owing to fetal growth and resource competition. Studies agree.

Chorioamnionitis may affect adolescent moms. Another research agrees. Unfathomable. Anatomical variations may exacerbate chorioamnionitis.

Puberty is unfinished. The alkalinity of the prepubertal vagina may favor bacterial vaginosis, while the perimenarcheal cervix's large squamocolumnar junction and short cervix may facilitate organisms' ascent to the uterus.

All additional obstetric problems, including hypertensive disorders, gestational diabetes, preterm premature membrane rupture, poly/oligohydramnios, antepartum hemorrhage, and post-partum hemorrhage, were identical among groups. According to Pakistani research, teenage moms are more prone to pregnancy-induced hypertension and puerperal sepsis. 20

Adolescents had more instrumental births and fewer caesareans. Both groups' vaginal birth rates were comparable. Teenage moms' delivery technique is controversial. Some studies reveal that teens had higher rates of normal vaginal birth and lower cesarean section and instrumental delivery rates. Israeli research found that teens had more instrumental deliveries and fewer caesareans than adult women. Under-15s had a greater maternal mortality risk. We discovered 0 teen maternal fatalities and one adult maternal death. 21

Our study found no higher risk of unfavorable perinatal outcomes for teen mothers, save meconium aspiration syndrome and post-maturity. Study-to-study perinatal outcomes

vary. Preterm delivery, low birth weight, and fetal or perinatal mortality are linked to adolescent pregnancy. Other studies revealed no dangers. No research shows a greater rate of post-term births among teens. 22

From 2015 through 2021, many teenage age groups were included in the research, causing varying obstetric findings. Younger teens had average results, according to studies. We couldn't compare their pregnancy outcomes since they were all 16-18. 4 under-17 females and none under-16 Multiparas were also studied. Different birthing systems may help. In many prosperous nations, pregnant adolescents are unmarried, poor immigrants. Inadequate sex education, early first intercourse, low contraceptive awareness, use, poor home circumstances, and high school dropout rates cause teen pregnancy. 24 teenage pregnancy studies come from free-treatment countries.

Teenage pregnancy is widespread in Pakistan families with social support. Youth and poverty restrict their decision-making capacity. You grow up, not reproduce in your teens. Forcing a girl out of school and into marriage might be harmful. Lack of contraceptive information causes physical and mental suffering for many young women. Our study indicated no higher risk for young women due to psychological stress.

The sample size was limited, and the women were predominantly 18-19—unanalyzed teen pregnancy findings. Most tertiary hospitals utilize traditional birth attendants, which may lower teen births. These conditions may harm both mother and fetus. Undocumented teen pregnancies. Larger-scale Teen pregnancy research is essential. 25

## CONCLUSION

Teen Pregnancy Is More Likely To Develop Severe Anemia And Chorioamnionitis And Have An Instrumental Birth. Teenage Pregnancies Cause Post-Maturity And Meconium Aspiration Syndrome.

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