

# Maternal and Fetal Outcome in Teenage Pregnancy

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## ABSTRACT

**Aim:** To determine the outcome of pregnancy in women in the age range of 13-19 years.

**Methods:** This descriptive study was carried out in the Department of Obstetrics and Gynaecology, Nishtar Hospital, Multan from September 2012 to May 2013. A total of 207 pregnant women of age range 13-19 years, both primigravidae and multigravidae, with pregnancy of less than 40 weeks duration were included in the study.

**Results:** The prevalence rate of teenage pregnancy was 11%. Of the 207 pregnant women studied, 5.8% belonged to younger subgroup (age-13-19 years) and 94.2% belonged to mature subgroup (age 16-19 years), 67.5% were residents of urban areas and 42.5% were from rural areas. All the adolescents except one were married. 23.2% had miscarriages, 15.9% had preterm labour. 18.4% suffered from pre-eclampsia and anaemia was found in 67.1% of teenagers.

**Conclusion:** Teenage pregnancy is associated with significant maternal and fetal complications.

**Keywords:** Teenage pregnancy, Pregnancy outcome, Complications.

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## INTRODUCTION

The transition from childhood to adulthood may be referred to as adolescence or teenage, which has been defined by World Health Organization as the period between 13-19 years<sup>1</sup>.

This is the period when structural, functional and psychological development occur in a child to prepare her for assuming the responsibility of motherhood. Adolescence (Latine: adolescence = to grow) is the period of life during which the carefree child becomes the responsible adult. Teenage is characterized by rapid somatic changes of sexual maturation and also by an important process of psychic maturation i.e. person is changing rapidly, biologically as well as mentally. It is a time of rapid development change and emotional upheaval as teenagers strive to assert their autonomy.

Teenage pregnancy is a fairly common occurrence due to many factors such as early marriages, girls reaching puberty at younger age and high specific fertility rate in the adolescent age group. Teenage pregnancy rates vary between countries because of differences in levels of sexual activity, marriage among teenagers, general sex education provided and access to affordable contraceptive options<sup>2</sup>. Worldwide, teenage pregnancy rates range from 143 per 1000 in some sub-Saharan African countries to 2.9 per 1000 in South Korea<sup>3</sup>. USA has the highest incidence in the developed world and UK has the highest incidence in Europe<sup>4</sup>, the incidence ranges from 0.9% to 21%.

Relatively, the situation in South Asian countries is severe as there are higher proportions of teenage pregnancies in this region due to common practice of early marriage and social expectation to have a child soon after marriage<sup>5</sup>. Evidence further indicates that nearly 60% of all girls are married by the age of 18 years and one fourth are married by age of 15 years in South Asia<sup>6</sup>, whereas within South Asia, the recorded teenage pregnancy rate is highest in Bangladesh (35%), followed by Nepal (21%) and India (21%)<sup>7</sup>.

Pregnancy related deaths are the leading cause of mortality for teenagers (married and unmarried) worldwide. Data show that globally 529,000 women die in every year due to pregnancy and child birth related complications<sup>8</sup>, whereas the risk of death due to pregnancy related causes is double among women aged 15-19 years compared to women in their twenties<sup>9</sup>.

The unique needs presented by adolescents during pregnancy and postpartum have prompted the development of models of prenatal and postpartum care specific to adolescents<sup>10</sup>. However, the main focus with respect to adolescent pregnancy has been its prevention, with less attention paid to addressing the needs of the adolescent once pregnant or after birth. Understanding the needs and experiences of pregnant and postpartum adolescents would contribute to health care professionals, ability to provide effective care for this group<sup>11</sup>. Clinicians across disciplines and practice settings are likely to encounter adolescents who are at risk of pregnancy. Health care providers are faced with many challenges when working with adolescents. Vague symptoms, unreliable menstrual history, and

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adolescent reluctance to disclose sexual activity present challenges to early diagnosis<sup>12</sup>.

**MATERIAL AND METHODS**

This descriptive study was carried out in the Department of Obstetrics and Gynaecology, Nishtar Hospital, Multan from September 2012 to May 2013. A total of 207 pregnant women of age range 13-19 years, both primigravidae and multigravidae, with pregnancy of less than 40 weeks duration were included in the study.

**RESULTS**

Out of total pregnant women being managed in Obstetrics and Gynaecology Department, Nishtar Hospital, Multan, 11% were teenagers. Among these teenage pregnant girls, 5.8% belonged to younger subgroup, whereas 94.2% belonged to mature subgroup. Most of the patients (57.5%) resided in urban areas. 99.5% of the patients were married. Only one patient having a pregnancy in her teens was unmarried. Pre-eclampsia was diagnosed in 18.4% teenagers. Anaemia is quite prevalent in our country and 67.1% of the adolescents were anaemic.

The various complications of pregnancy varied considerably among different teenagers. 23.2% of the adolescents had a miscarriage, 12.6% had miscarriage in first trimester whereas 10.6% had a second trimester miscarriage (Table 1). The percentage of the pregnant adolescents giving birth prior to 37 completed weeks of gestation was 15.9%. Among these 10.1% had preterm delivery (between 34-37 weeks) as shown in table 2. Mode of delivery was vaginal in majority of the teenagers (Table 3).

Table 1: Frequency of miscarriages in pregnant adolescents

	Freq	%age	Valid %age	Cumulative %age
1 <sup>st</sup> trimester	159	76.8	76.8	76.8
Yes	48	23.2	23.2	100.0

Table 2: Statistics related to preterm delivery in teenage pregnancy

	Freq	%age	Valid %age	Cumulative %age
No	174	84.1	84.1	84.1
Yes	33	15.9	15.9	100.0

Table 3: Different modes of delivery in teenagers

Mode of delivery	Freq	%age	Valid %age	Cumulative %age
S. section	75	36.2	36.2	36.2
Instrumental	10	04.8	04.8	41.1
Vaginal	122	58.9	58.9	100.0

**DISCUSSION**

Teenage pregnancy is an important social and health problem, accounting for approximately 10% of all pregnancies worldwide. It is estimated that teenage pregnancy affects 15 million young women ages 15-19 years every year in the world<sup>92</sup>. Adolescent pregnancy occurs in all societies, but the level of teenage pregnancy and childbearing varies from country to country, being 11.09% in Pakistan<sup>93</sup>. Teenage pregnancy is quite prevalent in our community. According to this study, prevalence of teenage pregnancy is 11%. It is close to that estimated by Tufail<sup>14</sup>.

The prevalence rate in this study differs from the study in 1999, according to which teenage pregnancy rate was 7% in Pakistan<sup>15</sup>. The difference might be due to the difference in the area of study as the level of education, socio-economic status, prenatal care and contraceptive facilities is not constant throughout the country and varies from one area to another.

In this study, majority (94.2%) of teenage mothers belonged to mature subgroup (ages 16-19 years) and only 5.8% of women belonged to young adolescent subgroup (ages 13-15 years). This is in accordance with the study conducted by Alves in which 95.2% of adolescents were aged 16-19 years and 4.7% were aged 11-15 years<sup>16</sup>.

Teenage pregnancy shows an association with residence in more deprived areas where it is relatively more prevalent than the affluent areas<sup>57</sup>. This is contradictory to our study where 57.6% of the teenagers belonged to urban areas and 42.5% were residents of rural areas. This contradiction might be due to the fact that Nishtar Hospital is a city-sited hospital. It receives mostly the urban patients and only complicated patients from rural areas. Traditional birth attendants are mostly involved in providing per-natal care to the pregnant women in rural areas, so the teenagers from rural areas are less likely to present in tertiary care hospital, until and unless an antepartum, intrapartum or postpartum complication occurs. Almost all (99.5%) except one patient in our study were married. This is contrary to the study in which 19% of the gravid adolescents were unmarried<sup>17</sup>.

Analysis of complications of pregnancy in this study revealed that the incidence of pre-eclampsia was 18.4%. This incidence is quite high compared with the national and international data<sup>18,19</sup>. This high incidence in our study might be due to the fact that Nishtar Hospital being a tertiary referral center receives mostly the complicated cases.

There is an increased risk of anaemia among young pregnant teenagers. This is in accordance with most of the studies<sup>20,21</sup>. In our community there is an

increased incidence of anaemia not only in teenagers but also in adult women<sup>22</sup>. This low haemoglobin level is due to many factors including poor diet, improper sanitation, poverty and lack of education about iron supplements during pregnancy.

## CONCLUSION

Teenage pregnancy is associated with significant maternal and fetal complications.

## REFERENCES

1. Programming for adolescent health and development. WHO technical report series 1999; 886: 1-27.
2. Teenage pregnancy – Wikipedia, the free encyclopedia [Online] 2013[cited August 30, 2013].
3. Trerrers PE. Teenage pregnancy, a worldwide problem. *Ned Tijdschr Geneesk* 2003; 147: 2320-5.
4. Gupta N, Kiran U, Bhal K. Teenage pregnancies. *Euro J Obstet Gynaecol Rep Biol* 2008; 137: 165-71.
5. Stone N, Ingham R, Simkhada P. Knowledge of sexual health issues among unmarried young people in Nepal. *Asia Pac Pop J* 2003; 18: 33-54.
6. Mehra S, Agrawal d. Adolescents health determinants for pregnancy and child health outcomes among the urban poor. *Indian Paediatr* 2004; 41: 137-45.
7. Acharya DR, Bhattaria R, Poobalan A, Van TE, Chapman G. Factors associated with teenage pregnancy in south Asia. *Health Sic J* 2010; 4: 1-13.
8. WHO. Facts and figures from world health organization report 2005. Geneva: World Health Organization 2005.
9. Population reference bureau. The world's youth. Washington DC: Population Reference Bureau 2000.
10. Kalima CS. Centering pregnancy; a model for pregnant adolescents. *Midwifery Womens Health* 2003; 48: 220-5.
11. Kingston D, Heaman M, Fell D, Chalmers B. Comparison of adolescent. *Paediatr J* 2012; 129: 1228-37.
12. Aruda MM, Waddicor K, Frese L, Cole JC, Burke P. Early pregnancy in adolescents. *J Pediatr Health Care* 2010; 24; 24: 4-
13. Nili F, FEhmati MR, Sharifi SM. Maternal and neonatal outcome in teenage pregnancy. *Acta Med Iranica* 2002; 40: 55-9.
14. Tufail A, Hashmi HA. Maternal and perinatal outcomes in teenage pregnancy. *Pak J surg* 2008; 24: 130-4.
15. Pakistan Country Statistics [online] 2000 [cited Aug 30, 2013]: available from: <http://mirror.ipf.org/regiions/sar/rl/issue3/statspak.htm>.
16. Alves JG, Cineiros RM, Dutra LP, Pinto RA. Perinatqal characteristics among early (10-14 years old) and late (15-19 years old) pregnant adolescents. *BMC Res Notes* 2012; 5: 531.
17. McCulloch A. Teenage childbearing in Great Britain. *J Epidemiol Comm Health* 2001; 55: 16-23.
18. Yildirim Y, Inal M, Tinar S. Reproductive and obstetric characteristics of adolescent pregnancies in Turkish women. *J Pediatr Adolesc Gynaecol* 2005; 18: 249-53.
19. Baker AM, Haeri S. Estimating risk factors for development of pre-eclampsia in teen mothers. *Arch Gynaecol Obstet* 2012; 286: 1093-6.
20. Kumar A, Singh T, Basu S. Outcome of teenage pregnancy. *Indian J Pediatr* 2007; 74: 927-31.
21. Deshmukh PR, Garg BS, Bharambe MS. Effectiveness of weekly supplementation of iron to control anaemia. *J Health Popul Nutr* 2008; 26: 74-8.
22. Chahande MS, Jhadoo AR. Study of some epidemiological factors in teenage pregnancy. *India J comm. Med* 2002; 27: 3.