INTRODUCTION

The term "teenager" refers to the period of time between the ages of 11 and 19 during which a carefree child develops into a responsible adult. Teen pregnancy rates have been rising recently as a result of early puberty, girls' sexual behavior, and a relative lack of knowledge about contraceptive options.\(^1\) Teenagers make up 32% of other country 160 million population, according to BMH & MMS 2010, and the birth rate is 126/1000 live births. In some other, marriage occurs frequently between the ages of 15 and 19; 69% of women marry before age 20. Additionally, according to Barkat A, an immature birth canal results in a labor that is obstructed or prolonged.\(^2\) Before she is an adult, a girl gives birth to a child, and the mother and fetus fight for food.

Every year, between 15 and 19-year-old women give birth to about 14 million children. Nearly 2.5 million births of girls under the age of 16 took place in low- and middle-income countries. Both in developed and underdeveloped nations, the number is rising. Socioeconomic issues and low educational attainment are most likely contributing factors.\(^3\) Teenagers are more likely to experience perinatal...
complications and increased surgical interference if they are uninformed, illiterate, and have poor socioeconomic conditions. In the current study, evaluation of some socio-demographic factors was conducted, including socioeconomic status, education attainment, religious and cultural backgrounds, occupation, and place of residence. Analyzed were clinical conditions and the use of healthcare services like antenatal care and contraception.

In India and the West, various factors can result in teen pregnancy, but these factors differ. Early marriages and childbearing in India are the main causes of teenage pregnancy. Whatever the reason, teenage pregnancies have an impact on the young woman and her future offspring. Girl children's education is impacted by teenage pregnancy. She would have more opportunities to develop her skills with better education and a delayed start to family life. Children are less likely to be educated by mothers who have less education. Frequently, teenage wives of older men become pregnant. This significant age difference between the girl's spouse and herself facilitates power differentials. Pregnancy complications like anemia and preterm labor are more common among adolescent mothers. Poor socioeconomic conditions, a lack of education, and insufficient prenatal care have an impact on the outcome as well.

MATERIALS AND METHODS

A cross-sectional observational study at a hospital was carried out in Department of Obstetrics and Gynecology, Government Medical College Nalgonda, Telangana, India, from December 2021 to November 2022. The purpose of this study was to compare teen pregnancy with adult pregnancy in terms of sociodemographic factors and complications related to teen pregnancies. In this study, 300 consecutively admitted pregnant women to the labor ward were examined. 150 of them were teenagers (ages 13 to 19), and 150 were adults (20 to 29).

Inclusion Criteria
- 13 to 19 years old is considered to be a teenager.
- Adults range in age from 20 to 29.
- Primigravida were the only pregnant teenagers included in the study and control groups because they made up the majority of the population. This is done primarily to remove parity's impact on maternal complications and newborn birth weight.
- Only primi-gravidae carrying singletons who are otherwise healthy.

Exclusion Criteria
- Teenage multi-mother.
- Twin pregnancy.
- Cardiovascular disorders, among other related medical conditions.
- Disordered hypertension.
- Respiratory conditions.
- Endocrinological conditions.
- Investigations and the past suggestive of medical disorders.

RESULTS

[Table 1] shows that the comparison group had a mean age of 23.87 years and the study group had an age range of 16 to 19 years, with a P value of 0.001 indicating a highly significant difference.

[Table 2] displays the sociodemographic context of teen pregnancies. 74% of teen mothers were Hindu, and the majority of them (59.3%) were from rural areas, 10% were from slums, and the remaining 30.7% were from urban areas, with no difference from the adult group. Ninety-two.7% of teenage mothers were housewives, and 51.3% of their husbands were in the military. The remaining mothers worked as drivers, day laborers, and business owners while living abroad.

Table 1: Age distribution

<table>
<thead>
<tr>
<th>Groups</th>
<th>Age (yrs)</th>
<th>Mean ±SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study group</td>
<td>16-19</td>
<td>18.61±0.72</td>
</tr>
<tr>
<td>Comparison group</td>
<td>20-29</td>
<td>23.87±2.8</td>
</tr>
</tbody>
</table>

Table 2: Socio-demographic variable distribution across the study groups (n = 300)

<table>
<thead>
<tr>
<th>Other Social variable</th>
<th>Study Group A</th>
<th>Study Group B</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Mothers occupation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>House Wife</td>
<td>139</td>
<td>92.7</td>
<td>139</td>
</tr>
<tr>
<td>Service</td>
<td>11</td>
<td>7.3</td>
<td>11</td>
</tr>
<tr>
<td>Husband occupation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service</td>
<td>77</td>
<td>51.3</td>
<td>73</td>
</tr>
<tr>
<td>Business</td>
<td>28</td>
<td>18.7</td>
<td>23</td>
</tr>
<tr>
<td>Living abroad</td>
<td>24</td>
<td>16.0</td>
<td>40</td>
</tr>
<tr>
<td>Driver</td>
<td>13</td>
<td>8.7</td>
<td>9</td>
</tr>
<tr>
<td>Laborer</td>
<td>8</td>
<td>5.3</td>
<td>5</td>
</tr>
<tr>
<td>Mothers Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>14</td>
<td>9.3</td>
<td>6</td>
</tr>
<tr>
<td>Primary Education</td>
<td>97</td>
<td>64.7</td>
<td>75</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>35</td>
<td>23.3</td>
<td>47</td>
</tr>
<tr>
<td>Higher Secondary</td>
<td>04</td>
<td>2.7</td>
<td>02</td>
</tr>
<tr>
<td>Husband Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>15</td>
<td>10.0</td>
<td>6</td>
</tr>
<tr>
<td>Primary Education</td>
<td>59</td>
<td>39.4</td>
<td>48</td>
</tr>
</tbody>
</table>
According to Table 3, group A received antenatal checks less frequently than group B (10% vs. 26.7%, P=0.001), which was highly significant. Teenage mothers are significantly less likely than adult mothers to use contraception (21.3% vs. 72%, P=0.001), and planned pregnancies were insignificant in both groups (18.7% vs. 24.7%, P=0.207). Primi para and para 2 were present in group A (97%) and group B (84%) respectively. (47.3% vs. 30.7%, P=0.003) It was discovered that the majority of teen mothers were significantly anemic.

Table 3: Distribution of ANC use, planned pregnancies, and contraceptive use

<table>
<thead>
<tr>
<th>Pregnancy related variable</th>
<th>Study Group A n</th>
<th>%</th>
<th>Study Group B n</th>
<th>%</th>
<th>Total n</th>
<th>%</th>
<th>SIG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antenatal Check up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular</td>
<td>15</td>
<td>10</td>
<td>108</td>
<td>72</td>
<td>123</td>
<td>64</td>
<td>SIG</td>
</tr>
<tr>
<td>Infrequent</td>
<td>108</td>
<td>72</td>
<td>27</td>
<td>18</td>
<td>37</td>
<td>21</td>
<td>P=0.036</td>
</tr>
<tr>
<td>Status of pregnancy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planned</td>
<td>28</td>
<td>18.7</td>
<td>37</td>
<td>24.7</td>
<td>65</td>
<td>21.7</td>
<td>P=0.207</td>
</tr>
<tr>
<td>Unplanned</td>
<td>122</td>
<td>81.3</td>
<td>113</td>
<td>75.3</td>
<td>235</td>
<td>78.3</td>
<td>NS</td>
</tr>
<tr>
<td>Contraceptive history</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Used</td>
<td>32</td>
<td>23.1</td>
<td>42</td>
<td>28</td>
<td>74</td>
<td>31.3</td>
<td>P=0.213</td>
</tr>
<tr>
<td>Not Used</td>
<td>118</td>
<td>76.9</td>
<td>108</td>
<td>72</td>
<td>226</td>
<td>68.7</td>
<td>NS</td>
</tr>
<tr>
<td>Parity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Para-1</td>
<td>146</td>
<td>97.3</td>
<td>126</td>
<td>84</td>
<td>272</td>
<td>90.7</td>
<td>P&lt;0.001</td>
</tr>
<tr>
<td>Para-2</td>
<td>4</td>
<td>2.7</td>
<td>24</td>
<td>16</td>
<td>40</td>
<td>9.3</td>
<td>HS</td>
</tr>
<tr>
<td>Anemia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Present</td>
<td>71</td>
<td>47.3</td>
<td>46</td>
<td>30.7</td>
<td>117</td>
<td>39</td>
<td>P&lt;0.003</td>
</tr>
<tr>
<td>Absent</td>
<td>79</td>
<td>52.7</td>
<td>104</td>
<td>69.3</td>
<td>183</td>
<td>61</td>
<td>HS</td>
</tr>
</tbody>
</table>

[Table 4] lists the complications that occurred during labor. Obstructed labor affected teenage women more than group B (14.2% vs. 10.6%), as did fetal distress (24.2% vs. 17.1%). Contrarily, hemorrhage and prolonged labor occur more frequently in the adult group (5.2% vs. 14.9% and (45.5% vs. 55.3%). Only teen mothers (6.5%) experienced genital tract injuries. More eclampsia (3.9% vs. 2.0%) was found in group A.

Table 4: The study group’s distribution of complications during labor (n = 124)

<table>
<thead>
<tr>
<th>Complications during labour</th>
<th>Study Group A n</th>
<th>%</th>
<th>Study Group B n</th>
<th>%</th>
<th>Total n</th>
<th>%</th>
<th>SIG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prolonged labour</td>
<td>35</td>
<td>26.4</td>
<td>26</td>
<td>15.4</td>
<td>61</td>
<td>14.9</td>
<td>SIG</td>
</tr>
<tr>
<td>Obstructed labour</td>
<td>11</td>
<td>10.6</td>
<td>10</td>
<td>7.3</td>
<td>21</td>
<td>8.9</td>
<td>SIG</td>
</tr>
<tr>
<td>Fetal distress</td>
<td>19</td>
<td>15.6</td>
<td>4</td>
<td>2.6</td>
<td>23</td>
<td>5.3</td>
<td>SIG</td>
</tr>
<tr>
<td>Hemorrhage</td>
<td>4</td>
<td>3.2</td>
<td>7</td>
<td>4.2</td>
<td>11</td>
<td>2.6</td>
<td>SIG</td>
</tr>
<tr>
<td>Genital tract injury</td>
<td>5</td>
<td>4.0</td>
<td>0</td>
<td>0.0</td>
<td>5</td>
<td>0.0</td>
<td>SIG</td>
</tr>
<tr>
<td>Eclampsia</td>
<td>3</td>
<td>2.5</td>
<td>1</td>
<td>0.7</td>
<td>4</td>
<td>0.7</td>
<td>SIG</td>
</tr>
</tbody>
</table>

The results for both groups are shown in Table 5. Compared to the adult group (94%), babies born to teenagers (88.6%) were still alive. It was statistically significant that teenage girls had higher rates of stillbirth and neonatal death (4% vs. 1.3%) and (7.3% vs. 4.6%, P=0.049). Furthermore, there was more birth asphyxia in group A (20% vs. 14.1%, P=0.024). This observation revealed that group A had a higher incidence of low birth weight (12.4% vs. 5.4%, P=0.03).

Table 5: Distribution of the study group’s fetal outcomes (With significance determined by the X2 test)

<table>
<thead>
<tr>
<th>Fetal outcome</th>
<th>Group A n</th>
<th>Group B n</th>
<th>Total n</th>
<th>SIG</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Baby alive</td>
<td>133</td>
<td>88.6</td>
<td>141</td>
<td>94</td>
</tr>
<tr>
<td>Still born</td>
<td>6</td>
<td>4</td>
<td>02</td>
<td>1.3</td>
</tr>
<tr>
<td>Neonatal death</td>
<td>11</td>
<td>7.3</td>
<td>7</td>
<td>4.6</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100.0</td>
<td>150</td>
<td>100.0</td>
</tr>
<tr>
<td>Birth asphyxia</td>
<td>Present</td>
<td>29</td>
<td>20.0</td>
<td>14.9</td>
</tr>
<tr>
<td>(n=586)</td>
<td>Absent</td>
<td>116</td>
<td>80.0</td>
<td>85.1</td>
</tr>
<tr>
<td>Birth Weight</td>
<td>&lt; 2.5 kg</td>
<td>18</td>
<td>12.4</td>
<td>5.4</td>
</tr>
<tr>
<td>&gt; 2.5 kg</td>
<td>127</td>
<td>87.6</td>
<td>140</td>
<td>94.6</td>
</tr>
</tbody>
</table>

DISCUSSION

The current study demonstrates that teenagers’ socioeconomic situations are a major contributor to
the increased risks for poor pregnancy outcomes associated with low maternal age. Teen pregnancy appeared to be associated with low socioeconomic status, limited education, religious, and cultural factors.[8,11] Young women who experience gender bias typically have limited decision-making power because they are socially marginalized and economically underprivileged. Low levels of education appeared to be linked to a higher likelihood of teenage pregnancy and childbirth.[11] Education may have a big impact on boosting self-esteem, advancing the age of first sex, and delaying marriage.[12] According to the results of the current study, teenage mothers were more likely than adults to have finished their secondary education (23% vs. 31.3%). The best way to prepare girls for later marriage, planned and delayed pregnancies, and better motherhood is to empower them, which is made possible by mandatory sex education.[13]

According to the current study, rural areas are home to 59.3% of teenage mothers. 10% from slums and 30.7% from cities, while in the comparison group, 54% from rural areas and 7.3% from slums were almost exactly the same. Since both groups share the same residence, Abul Barkat's observation,[12] is supported. 74% of the mothers of teenage daughters in the current study were from Muslim families, 22.7% were Hindu, and 3.3% were Buddhist. Muslim women are more likely than non-Muslim women to become pregnant earlier. Because of their early birth practices, Muslims make up the majority of the population in these countries.[14] This study also revealed that 92% of mothers with teenage children were housewives with only 7.3% of them working, almost the same as the comparison group. Gaining employment can boost self-assurance and decision-making skills, allowing you to put off getting married and having kids. A significant factor is the husband's line of work. Husbands who were living abroad, illiterate, or less educated want a child sooner without taking the wife's young age into consideration. Most of the teenage husbands in the current study had completed their secondary education. Only a small percentage (3.3%) and 1.3%, respectively, had graduate degrees.

Regarding financial circumstances, 54% of adult mothers came from financially precarious backgrounds, compared to 70% of adolescents from poor families. According to Shrestha's research, teen pregnancies are significantly more common in lower social classes (52%) than in higher social classes (26%).[15] Early pregnancy risk among young people was made worse by structural and social inequality, poverty, and low educational attainment.[16] In the current study, compared to group B (81.3% vs. 75.3%), the majority of teenage pregnancies were unplanned. When compared to group B, teenage mothers used contraceptives less frequently (21.3% vs. 72%, P.001), which is statistically significant. According to a 2003 WHO discussion paper, only 18% of teenagers in Uganda and 89% of those in Kenya had ever used birth control. According to the BDHS, 15.3% of teenagers do not use any form of contraception, which is almost identical to the results of the current study.[17] The lack of education, lack of counseling on contraception, and fear of future fertility are the main reasons why teenage use of contraception is lower. Delaying marriage would give women the chance to pursue higher education, increasing their chances of becoming empowered and having a planned pregnancy.

Only 10% of adolescent mothers and 26.7% of adult women, according to a recent study, receive regular prenatal care. According to Nahathi W et al., adolescent mothers received less antenatal care than adults (13.4% vs. 25.9%).[18] Antenatal care in developing nations is frequently subpar, but the care provided to teen mothers (48%) is insufficient even by national standards. Due to different access to health services among teen mothers, socioeconomic deprivation continues to be of significant importance. In this study, 97.3% of the primipara were statistically significant, compared to 2.7% of the second para, and 16% of the adult group. Adolescents may have less time to become pregnant a second time due to their age limit. The majority of the mother, 47.3% vs. 30.7%, was found to be significantly anemic (P.003). The prevalence of anemia among teenage mothers is high (46%) according to a study from north India, which was similar to the findings of the current study.[19] This is because teen mothers typically consume low amounts of dietary iron.

Teenage mothers had higher rates of instrumental delivery (6% vs. 2.6%) and cesarean section (59.3% vs. 48.7%) in group A than in group B (SVD: 33.7% vs. 48.7%; SVD: 48.7%; SVD: 59.3%; SVD: 59.3%). As a result, the number of operations delivered to teen mothers was significantly (P.03) higher. In one study by Amber T et al., C S was the primary route of delivery in teenagers (43.6% vs. 10.6%, P.001) and SVD was lower (60% vs. 85%, P.001). Another study conducted at BSMMU found that 44% of mothers had CS, which was more common in adolescents.[19] According to a study conducted in Bangkok's Rajavithi Hospital, teenage girls are more likely than adults to develop CS (18.7 vs. 13.3%, P.006) and use it as a major route.[21] These studies and the current study are comparable. Obstructed labor and fetal distress were more prevalent in group A in the current study when compared to group B (14.3% vs. 10.6%) and (24.7% vs. 17%), which was consistent with a previous study that found cephalic pelvic disproportion and longer labor times in adolescent mothers.[22] Contrarily, the incidence of hemorrhage was higher in the adult group (5.2% vs. 14.9%) as well as prolonged labor (45.5% vs. 55.3%). In comparison to an adult mother, eclampsia is also more prevalent in teenagers (3.9% vs. 2.1%).

In the current study, 88% of babies were delivered alive, stillbirth rates were 53.3% vs. 33%, and deaths within 7 days of delivery were 6.7% vs.
3.9%. So the overall perinatal death rate was (12% vs. 6.6%). P0.049) significantly higher in teenagers; similar findings have been reported in some studies from Jordan and South Asia,[23,24] Group A has been linked to higher rates of fetal and neonatal mortality, according to Kumar A et al. (1.9% vs. 3%, 3.8% vs. 5%, P 0.05), respectively.[25] Birth asphyxia was significantly more common in group A (20% vs. 14.91%). P0.024 in the current research. Some studies have shown a higher prevalence of birth asphyxia and a low Apgar score. In the current study,[26] the baby in group A had a birth weight that was significantly lower than that of the adult group (2.78 vs. 2.88, P 0.01). Low birth weight is also more common in teenagers (12.4% vs. 5.4%, P<0.05). Low birth weight incidence was reported to be 30% in India and 9.9% in Pakistan by Sariar B et al.[27] This discovery agreed with a recent study. This study and others have found the same results, according to Judith B et al., who found that babies born to teenage mothers in the Philippines had lower birth weights than babies born to adult mothers (2.7 vs. 2.8, P 0.01). Perinatal mortality and morbidity are more likely in infants with low birth weight. By receiving adequate prenatal care and a nutritional supplement, the mean birth weight was increased.[28]

CONCLUSION

Teenage pregnancy is one of the major issues facing the world today, and this is especially true in developing nations like India. Many different actions are being taken globally to prevent teenage pregnancy. Educating people about the dangers of teenage pregnancy is the best strategy for solving this problem. Teenagers from socially disadvantaged backgrounds, which are characterized by deprivation, reliance on public assistance, academic underachievement, and low parental educational aspirations, are more likely to get pregnant young. Teenage pregnancy should therefore be treated as high risk, and the causes must be eliminated. To improve the adolescent's reproductive health, a multidisciplinary team effort involving educators, health and social workers, obstetricians, and gynecologists is needed.

REFERENCES

2. Bark at A. Adolescent and youth reproductive health in Bangladesh. 2003;1-10.