

SOCIODEMOGRAPHIC PROFILE AND OBSTETRIC OUTCOMES OF PREGNANT ADOLESCENTS IN THE WESTERN AMAZON OF BRAZIL/ACRE: ANALYSIS FROM THE PERSPECTIVE OF PUBLIC POLICIES

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ABSTRACT

Objective: To evaluate the sociodemographic profile and obstetric outcomes (maternal and fetal) of pregnant adolescents in a public maternity hospital in the interior of Acre. Method: A descriptive study was carried out with the application of a questionnaire to all women (under the age of 20 years) who had the resolution of pregnancy (childbirth, abortion) at the Juruá Women's and Children's Hospital from November 2023 to March 2024. Results: 195 adolescents were interviewed, of which 57 (29.1%) are 19 years old, 164 (83.7%) declare themselves brown, 140 (71.4%) live in rural areas, 136 (71.4%) live in a consensual union, 119 (60.7%) have a family income of less than 1 minimum wage, 159 (81.1%) were in their first pregnancy, 76 (38.8%) had more than seven prenatal consultations, but a significant number stated that they had not had any consultations (17/8.7%), 194 (99%) had a singleton pregnancy, 126 (64.3%) had a pregnancy lasting 37 to 40 weeks. Conclusion: in view of the above, it can be seen that it is necessary to create public policies with health education in order to seek new strategies to prevent pregnancy in adolescence and improve prenatal care for pregnant adolescents.

Keywords: Pregnancy in adolescence, Maternal and child health, Public Health, Sexual and reproductive health.

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INTRODUCTION

The World Health Organization (WHO) defines adolescence as the period of life that begins at the age of 10 and ends at the age of 19, i.e. the second decade of life. The Statute of the Child and Adolescent (ECA), in its law No. 8,069 of 1990, considers an adolescent to be a person between 12 and 18 years of age, characterized by a transition period between childhood and adulthood. The Ministry of Health (MS, 1996) and UNICEF (2011) understand adolescence as the period between 10 and 19 years of age. In the UNICEF report Adolescence is defined as a transition phase between childhood and adulthood, it still classifies adolescence into two stages: early adolescence (10 to 14 years old and late adolescence (15 to 19 years old). (UNICEF, 2011).

This phase is characterized by intense human growth and development in which marked anatomical, physiological, mental and social transformations occur in the person. During this process, the individual is immersed in a universe of bodily, sexual, social, and cultural discoveries, seeking ways to achieve their autonomy and independence in adult life (WHO, 2021).

However, there is disagreement regarding the age of beginning and end of this period, and the most used internationally is the one recommended by the WHO, although there are propositions that extend the end of adolescence to 24 years. The Ministry of Health, on the other hand, uses the 10-19 age group, even though it differs from what is recommended by the child and adolescent statute, which defines the range from 12 to 18 years of age (SAWYER, et al., 2018; BRAZIL, 1990).

This phase is marked by changes and discoveries of the body and mind, where adolescents begin to assume their sexuality, begin to know and experience and experience sex, which are influenced by various factors such as the physical, psychological, cognitive and social transformations brought about by growth and development and the beginning of reproductive capacity (BRASIL, 2018).

The early initiation of sexual activities, together with the lack of information about the appropriate use of contraceptives and the deficiency of adolescent care programs are some of the factors that may be responsible for the increase in pregnancy, abortions and sexually transmitted diseases in adolescence. In addition, the increasingly early onset of puberty, which is well anticipated over the years, is an important contributing factor to the precocity of pregnancies (MONTEIRO, et al., 2018; ROSANELI, COSTA, SUTILE, 2020).



A pregnancy in this age group totally changes the trajectory of the lives of these girls, who suddenly have to deal with motherhood, without having physical, emotional and often financial preparation. And linked to this, it is possible to observe family disorganization, school dropout, social and labor market withdrawal, emotional upheaval, often perpetuating an intergenerational cycle of poverty, as marginalized girls are the most disproportionately affected by early pregnancy. In addition, it can pose risks to the mother and her fetus (ROSANELI, COSTA, SUSUB, 2020; MELO, SOARES, SILVA, 2022).

The most recurrent obstetric complications in this age group are urinary tract infection, vaginal bleeding, increased blood pressure levels, spontaneous abortion, gestational diabetes, premature births, intrapartum fetal suffering, cesarean deliveries with suture impairment, breastfeeding difficulties. And in relation to the baby's health, low birth weight, perinatal death, epilepsy, mental problems, difficulty in motor and intellectual development, blindness, deafness, in addition to death in childhood (COSTA, et al., 2020; BORGES, 2021).

In some cases, pregnancy can occur due to the adolescent's desire for motherhood, and often comes as a bias to reorganize her future plans. And in these cases, it is necessary to guarantee them their sexual and reproductive rights, through information on methods and means for the regulation of fertility, as well as prenatal, childbirth and postpartum care (CHEHADE, MENDES, DARZÉ, 2022). In a study carried out in the municipality of Maceió through interviews with pregnant women in 2020, it showed that statistically the age of those who expressed the desire for pregnancy is higher, thus showing that younger women have less planning of their reproductive health (CARVALHO, et al., 2021).

However, the lack of planning, especially among adolescents, ends up leading to changes in their lives, as well as having an impact on the State, hence the importance of understanding the sociocultural context and the multiple causes that involve adolescent pregnancy, working with preventive actions, through a welcoming and targeted education, especially due to the less favorable perinatal outcomes and greater impacts on the lives of these adolescents, who need specialized care during pregnancy, childbirth, and puerperium (CHEHADE, MENDES, DARZÉ, 2022).



METHOD

This is a cross-sectional, descriptive study with a quantitative approach, carried out at the Juruá Women's and Children's Hospital in the city of Cruzeiro do Sul, a Brazilian municipality located in the interior of the state of Acre. A total of 195 adolescents aged 14 to 19 years were interviewed from November 2023 to March 2024 to conduct the interviews.

All pregnant adolescents who had the resolution of pregnancy (childbirth, abortion) at the Juruá Women's and Children's Hospital in Cruzeiro do Sul (Acre), who were 14 years old and under 20 years of age and accompanied by their respective legal guardians, when under 18 years of age, were included to sign the TALE. And all pregnant women who did not wish to participate in the study, those who had the resolution of the pregnancy in another location, indigenous women and pregnant women under 14 years of age were excluded from the study, as it was considered rape of a vulnerable person and who was 20 years of age or older. Adolescents whose companion or legal guardian does not allow them to participate in the study and indigenous pregnant women were also excluded, since they have an ethnic-cultural characteristic.

A structured questionnaire was used, developed by the researchers, based on specific literature, covering questions pertinent to the sociodemographic and obstetric profile of adolescent puerperal women. The participants received a complete explanation (considering that those under 16 years of age need to be guided with representation from their legal representative - father, mother or both, and those under 18 and over 16 need the joint assistance - joint signature - of the legal representative) about the nature of the research, its objectives, methods, expected benefits, potential risks and the inconvenience that it could entail. Those who agreed to participate in the study received and signed the Informed Consent Form (ICF) or Consent Form for adolescents under 18 years of age (TALE).

For evaluation, the results obtained in the questionnaires were transported to a database in an electronic spreadsheet in the Microsoft Excel program, which will be exported to the SPSS software, version 20.0. Absolute frequencies will be calculated. The results were presented using tables and figures, prepared according to the tabular presentation standards of the Brazilian Institute of Geography and Statistics.

The present study was presented to the ethics committee because it is a study involving human beings. An opinion from the Research Ethics Committee (CEP) of the School of Sciences of Santa Casa de Misericórdia de Vitória (EMESCAM) was requested



for consideration. This study was approved by the Institutional Ethics Committee under opinion number 6.479.001, CAAE 73842623.8.0000.5065.

RESULTS

195 adolescents who gave birth at the Hospital da Mulher e da Criança do Vale do Juruá were interviewed and the results were divided into two age groups, 14-16 years old and 17-19 years old.

It was observed that 130 (66.3%) of the interviewees were between 16 and 19 years old, but they could not fail to notice that the adolescents who had previous pregnancies in both groups had adolescents who had their first pregnancy at 13 years of age.

Regarding sociodemographic characteristics, when the other two age groups, 14-16 years and 17-19 years, were evaluated, most adolescents declared themselves brown, 83.1% in the 14-16 age group and 84.6% in the 17-19 age group. The percentage of self-declared white adolescents increases slightly with age, being 12.3% in the 17-19 age group. The number of self-declared black adolescents is small in all groups. Cruzeiro do Sul/AC concentrates the majority of adolescents in all age groups, especially in the group of 14 to 16 years (52.3%) and 17 to 19 years (44.6%). Other cities, such as Mâncio Lima-Ac and Rodrigues Alves-Ac, have a significant representation, especially among older adolescents. A large majority live in rural areas, 72.3% in the 14-16 age group and 71.5% in the 17-19 age group. The percentage of adolescents living in urban areas is lower, 27.7% and 28.5%, respectively. There is a high prevalence of adolescents living in consensual unions (61.5%-73.8%). The number of officially married adolescents is low, a significant proportion of the 17-19 age group is single (25.4%).

Schooling is a worrying factor, with 67.7% of adolescents in the 14-16 age group and 30.8% in the 17-19 age group having completed only elementary school up to the 9th grade. There was a small presence of adolescents who managed to reach secondary school (9.3% in the 14–16 age group and 8.5% in the 17–19 age group). Parents' education is low, with 33.8% of parents in the 14-16 age group and 31.5% in the 17-19 age group having no schooling. Most parents have only up to the 5th year of elementary school, suggesting a low educational level in the family environment. The mothers' schooling is also low, with 26.1% in the 14-16 age group and 43.1% in the 17-19 age group, having not completed any year of schooling. Few mothers have completed high school, which reflects the educational and socioeconomic vulnerability of families. The majority of adolescent girls



identify as Catholic or Evangelical, with 50.8% of teenage girls aged 14-16 and 49.3% of teenage girls between 17-19 years identifying as Catholic. Evangelicals constitute 40.0% and 44.6% in the groups aged 14-16 and 17-19 years, respectively. Most adolescents live with family members, either with or without a partner. Notably, 46.1% of the 17-19 year old group live with a partner, suggesting a transition to a family structure.

The majority of the adolescent family lives on an income of less than one minimum wage, 600 reais from the Bolsa Familia, especially in the 14-16 age group (76.9%) and the 17-19 age group (52.4%). Few families have an income higher than three minimum wages, which reinforces the socioeconomic vulnerability of these adolescents. (Table 01).

Table 01 - Characterization of adolescents according to sociodemographic characteristics

| Variable | 14-16 years n (%) | 17-19 years n (%) |
|-------------------------|---------------------------------------|----------------------|
| Self-declared color | (78) | (73) |
| White | 08 (12,3) | 16 (12,3) |
| Brown | 54 (83,1) | 110 (84,6) |
| Black | 3 (4,6) | 04 (3,1) |
| City of residence | (1,1) | |
| Cruzeiro do Sul-Ac | 34 (52,3) | 58 (44,6) |
| Feijó-AC | 01 (1,6) | 01 (0,7) |
| Mâncio Lima-Ac | 09 (13,8) | 09 (6,9) |
| Port Walter-AC | | 07 (5,4) |
| Rodrigues Alves-Ac | 07 (10,7) | 18 (13,8) |
| Tarauacá-AC | 01 (1,6) | 04 (3,1) |
| Marechal Thaumaturgo-Ac | 09 (13,8) | 15 (11,6) |
| Guajará -AM | 04 (6,2) | 17 (13,2) |
| Ipixuna-AM | · (e,=/ | 01 (0,7) |
| Living area | | 0 : (0,1) |
| Rural | 47 (72,3) | 93 (71,5) |
| Urban | 18(27,7) | 37 (28,5) |
| Marital status | 10(=:,:) | (===,=) |
| Consensual union | 40 (61,5) | 96 (73,8) |
| Married woman | 23 (35,4) | 01 (0,8) |
| Single | 02 (3,1) | 33 (25,4) |
| Schooling | - (-, / | |
| No | 2 (3,1) | 01 (0,8) |
| Grades 1-5 | 4 (6,1) | 05 (3,8) |
| Grades 6-9 | 44 (67,7) | 40 (30,8) |
| Middle school | 15 (23,1) | 83 (63,8) |
| Superior | 2 (3,1) | 01 (0,8) |
| Father's education | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | |
| No | 22 (33,8) | 41 (31,5) |
| Grades 1-5 | 16 (24,6) | 42 (32,3) |
| Grades 6-9 | 07 (10,7) | 22 (16,9) |
| Middle school | 06 (9,3) | 11 (8,5) |
| Superior | | 03 (2,3) |
| Don't know | 14 (21,6) | 11 (8,5) |
| Mother's education | \ /-/ | \-1-/ |
| No | 17 (26,1) | 24 (18,5) |
| Grades 1-5 | 18 (27,7) | 56 (43,1) |



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| Grades 6-9 | 14 (21,6) | 15 (11,5) |
|---|-----------|-----------|
| Middle school | 10 (15,4) | 25 (19,2) |
| Superior | 1 (1,5) | 03 (2,3) |
| Don't know | 17 (26,1) | 06 (5,4) |
| Religion | | |
| No | 06 (9,2) | 06 (4,6) |
| Catholic | 33 (50,8) | 64 (49,3) |
| Evangelical | 26 (40,0) | 58 (44,6) |
| Others (daime tea) | | 02 (1,5) |
| Occupation | | |
| No | 14 (21,6) | 73 (56,2) |
| Student | 50 (76,9) | 54 (41,5) |
| Paid activity | 01 (1,5) | 03 (2,3) |
| Who does he currently live with | | |
| With partner | 17 (26,1) | 60 (46,1) |
| With partner and family | 23 (35,4) | 34 (26,2) |
| With family members and without their partner | 25 (38,5) | 34 (26,2) |
| Alone | | 02 (1,5) |
| Household income | | |
| Less than 1 minimum wage | 50 (76,9) | 68 (52,4) |
| From 1 to 2 minimum wages | 12 (18,5) | 51 (39,2) |
| Greater than 3 minimum wages | 3 (4,6) | 11 (8,4) |

Source: Survey Data (2023)

Regarding the gynecological-obstetric history of the adolescent puerperal women, it was observed that most had menarche between 11 and 12 years of age, in the groups of 14-16 years (46.2%) and 17-19 years (37.7%). The earliest onset of menarche between 9-10 years of age is less common. Most adolescents had their first sexual intercourse between 13-14 years of age, in the 14-16 years (60.0%) and 17-19 years (42.4%) age groups, and sexarche aged 15 years or older (56.1%) in the 17-19 age group. When asked if they sought any type of guidance before starting their sexual life, in both groups (81.5%-80.8%), they did not seek any guidance, most did not use any contraceptive (70.8%-59.2%) and those who did opted only for condoms (57.9%-37.7%). The most common reason for not using contraceptives was "I don't think about it" (73.9%-74.0%), represents a lack of planning or awareness of the risk. However, there is also a significant number, with more than 20% of them in the two groups who stated that they wanted to become pregnant, most were in their first pregnancy (92.3%-75.4%), and (7.7% and 24.6%) had already had two previous pregnancies and in the group of adolescents aged 17-19 years (31.8%) had had at least one abortion. Regarding the current pregnancy, most adolescents stated that the pregnancy was not planned in both groups (77% in the 14-16 age group and 70% in the 17-19 age group). Among those who planned, the most common reason was to believe that "it



was the right time", which is noteworthy that of the 14-16 year old group, 15 (100%) of them had this statement and 34 (87.2%) of the 17-19 year old group (Table 02).

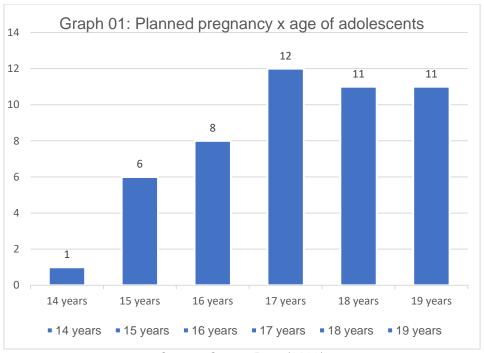
Table 2 – Obstetric history of adolescent puerperal women

| Variable | 14-16 years n (%) | 17-19 years n (%) |
|---|-------------------|-------------------|
| Age of menarche | , , | , , |
| 09-10 years | 09 (13,8) | 08 (6,1) |
| 11-12 years | 30 (46,2) | 49 (37,7) |
| 13-14 years | 23 (35,4) | 54 (41,6) |
| 15 or more | 03 (4,6) | 19 (14,6) |
| Age of 1st sexual intercourse | | |
| 09-10 years | | |
| 11-12 years | 12 (18,4) | 2 (1,5) |
| 13-14 years | 39 (60,0) | 55 (42,4) |
| 15 or more | 14 (21,6) | 73 (56,1) |
| Sought guidance before the beginning of sexual life | | |
| No | 53 (81,5) | 105 (80,8) |
| Colleagues | 05 (7,8) | 10 (7,7) |
| Relatives | 03 (4,6) | 05 (3,8) |
| Parents | 04 (6,1) | 10 (7,7) |
| Use of Contraceptives | | |
| Yes | 19 (29,2) | 53 (40,8) |
| No | 46 (70,8) | 77 (59,2) |
| Which method is used | | |
| Condom | 11 (57,9) | 20 (37,7) |
| Oral Contraceptive | 05 (26,3) | 17 (32,1) |
| Injectable contraception | 03 (15,8) | 16 (30,2) |
| If he didn't use it, why? | | · |
| I wanted to get pregnant | 12 (26,1) | 20 (26,0) |
| Didn't think about it | 34 (73,9) | 57 (74,0) |
| First pregnancy | | |
| Yes | 60 (92,3) | 98 (75,4) |
| No | 05 (7,7) | 32 (24,6) |
| How many previous pregnancies | | |
| 2 pregnancies | 05 (100,0) | 30 (93,7) |
| 3 pregnancies | | 2 (6,3) |
| Outcome of previous pregnancies | | |
| Parturition | 04 (80,0) | 45 (68,2) |
| Abortion | 01 (20,00) | 21 (31,8) |
| What is the age of the first pregnancy | | |
| 13 years | 01 (20,0) | 01 (3,1) |
| 14 years | 01 (20,0) | 09 (29,1) |
| 15 years | 02 (40,0) | 10 (31,3) |
| 16 years | | 10 (31,3) |
| 17 years | | 01 (3,1) |
| 18 years old | | 01 (3,1) |
| No Response | 01 (20,0) | |
| The current pregnancy was planned | | |
| Yes | 15 (23,0) | 39 (30,0) |
| No | 50 (77,0) | 91 (70,0) |
| If planned, what is the reason | | |
| It was the right time | 15 (100,0) | 34 (87,2) |
| Partner insistence | | 05 (12,8) |



Other

Source: Survey Data (2023)



Source: Survey Data (2023)

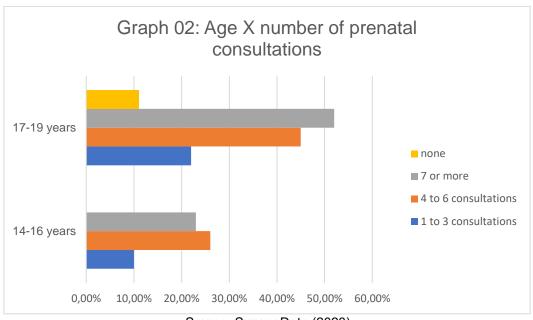
Regarding the current pregnancy, 61.2% of the adolescents had less than 07 prenatal consultations, the 14-16 year old group had four to six consultations (40.0%) and the 17-19 year old group had already had seven or more consultations (Graph 02). The absolute majority of pregnancies were single in all age groups (100% in the 10-13 and 17-19 age groups; 96.9% in the 14-16 age group). Only in the 14-16 age group was there a record of double pregnancy. Most of the pregnancies resulted in full-term deliveries lasting (37 to 40 weeks) in all groups (66.1% for 14-16 years and 63.0% for 17-19 years). Cases of preterm infants are noted, especially in the 14-16 age group where 10.9% of pregnancies ended before 37 weeks.

Regarding the outcome of delivery, there is a predominance of vaginal deliveries, especially in the 14-16 age group (60%). The number of cesarean sections is highest in the 17-19 age group (48.5%) with various medical indications, including oligohydramnios, cephalopelvic disproportion, and post-datism. When the complications during pregnancy were generally the adolescents who lived in the rural area had a higher number of complications when compared to those who lived in the urban area (Graph 03), that is, 75.6% of the complications and being the main ones among the groups of 14-16 years stated urinary tract infection (UTI) (43.1%), the group of 17-19 years the majority stated that



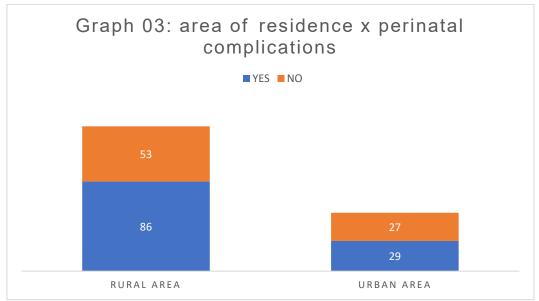
they had no complications (42.3%), however, a significant number also reported UTI (40.8%) (Graph 04). Regarding the outcome, more than half (55.0%) who had a cesarean section or abortion had less than seven prenatal consultations and the older the older they were, but had a cesarean section (Graph 05).

The majority of newborns were alive at birth in all groups (87.7% in the 14-16 age group; and 89.2% in the 17-19 age group). The cause of death was mostly considered a miscarriage (75.0%-100%), there were 2 stillbirths (25%) in the 14-16 age group. Regarding Apgar scores at birth, most were between 8-10 (83.0%-86.9%) (Graph 06). Females predominated in the 14-16 age group (49.2%) and males in the 17-19 age group (46.1%). Most newborns had adequate weight (2500 to 3999 grams) in all groups (73.8%; 74.0%) (Table 03). There were cases of low birth weight infants mainly in the 14–16 age group (13.9%) and in the 17–19 age group (11.5%).

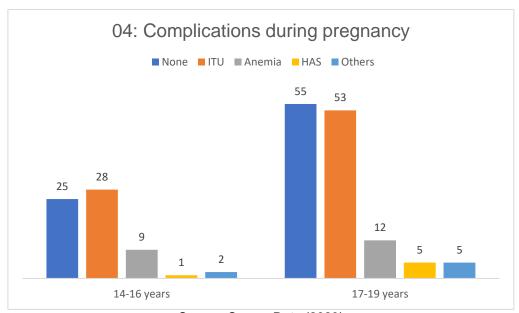


Source: Survey Data (2023)





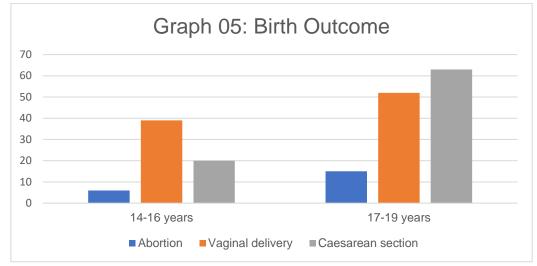
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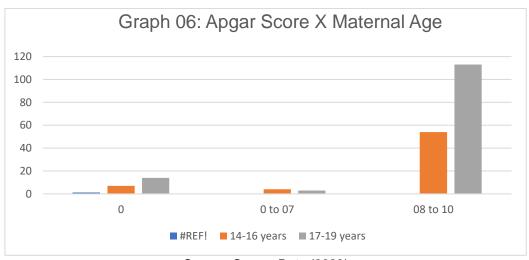
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Source: Survey Data (2023)



Source: Survey Data (2023)

Table 03 – Perinatal outcome of adolescent postpartum women

| Variable | 14-16 years n (%) | 17-19 years n (%) |
|--------------------------------------|-------------------|-------------------|
| Type of pregnancy | | |
| Only | 63 (96,9) | 130 (100,0) |
| Couple | 02 (3,1) | |
| Length of pregnancy | | |
| Less than 21 weeks | 06 (9,2) | 15 (11,5) |
| 22 to 27 weeks | 01 (1,6) | 01 (0,8) |
| 28 to 32 weeks | 01 (1,6) | 02 (1,6) |
| 33 to 36 weeks | 05 (7,7) | 09 (6,9) |
| 37 to 40 weeks | 43 (66,1) | 82 (63,0) |
| 41 or more | 09 (13,8) | 21 (16,2) |
| Outcome of delivery | | |
| Abortion | 06 (9,2) | 15 (11,5) |
| Vaginal | 39 (60,0) | 52 (40,0) |
| Cesarean | 20 (30,8) | 63 (48,5) |
| If cesarean section, what indication | | |
| Fetal distress | 06 (30,0) | 13 (20,6) |
| Oligoamnios | 04 (20,0) | 16 (25,4) |



| Post-datismo | 01 (5,0) | 09 (14,3) |
|-------------------------------|------------|------------|
| Cephalo-pelvic disproportion | 07 (35,0) | 13 (20,6) |
| Placental abruption | 02 (10,0) | 02 (3,2) |
| Previous cesarean section | 0,0 | 03 (4,8) |
| Other | 0,0 | 07 (11,1) |
| Condition of the conceptus | | , , |
| Alive | 57 (87,7) | 116 (89,2) |
| Stillborn | 08 (12,3) | 14 (10,8) |
| Cause of stillbirth | | |
| Conditions originating in the | 02 (25 0) | |
| neonatal period | 02 (25,0) | |
| Abortion | 06 (75,00) | 14 (100,0) |
| Sex of the conceptus | | |
| Male | 27 (41,5) | 60 (46,1) |
| Female | 32 (49,2) | 56 (43,1) |
| Not applicable | 6 (9,3) | 14 (10,8) |
| Weight of the conceptus | | |
| Less than 500 g | 8 (12,3) | 15 (11,5) |
| From 1000 g to 1499 g | | 1 (0,7) |
| From 1500 g to 2499 g | 9 (13,9) | 15 (11,5) |
| From 2500 to 3999 g | 48 (73,8) | 96 (74,0) |
| More than 4000 g | | 3 (2,3) |

Source: Survey Data (2023)

DISCUSSION

According to Moura et al. (2021) the global rate of adolescent mothers is 46 births per thousand adolescents and young women, in Latin America it is 65.5 births per thousand and in Brazil this rate becomes higher, being 68.4 births per thousand adolescents, being the highest rate in Latin America, in which 434 thousand children are born in Brazil to adolescent women in the age group of 15 to 19 years.

There were adolescents aged 14-15 who were already in their second pregnancy, leading to believe that they had their first pregnancy at the age of 13 or younger. In Brazil, according to the Brazilian Penal Code in Art. 218 – Having carnal conjugation or practicing a libidinous act with minors under 14 years of age is considered a crime with a penalty of imprisonment of eight to 15 years (BRASIL, 2009). So what is justified is that there are still so many teenagers having sex earlier and getting pregnant.

Similarly, Araujo et al. (2022) consider early sexual initiation, lack of knowledge about contraceptive methods, and economic conditions as preponderant factors among pregnant adolescents. In Visão, de Abreu and his collaborators (2020) identified that there is a cultural idealization of motherhood as if it were a rite of passage to adult life among adolescents, especially within needy family contexts, where there may not be a maternal figure present.



In this same line of thought, Pereira (2022) emphasizes that teenage pregnancy is a multidetermined phenomenon, which can be aggravated by extreme poverty, with the interaction of socioeconomic and environmental factors. Miranda (2023) states that as much as statistics show that there has been a decline in the frequency of pregnancy among adolescents in Brazil, its occurrence is still high and unplanned, on the other hand there was an increase of 11.5% in the fertility rate among girls under 14 years of age in the less developed regions of Brazil, thus showing that there is an invisibility of the rape of vulnerable in the country, in addition to the association with socioeconomic factors.

Cabral et al (2020) state that the increasingly early incidence of pregnancy and motherhood in adolescence causes an earlier maturation process, becoming a psychosocial, economic and also public health problem, as there is a reduction in quality of life, resulting in an overload of motherhood and loss of study time, which makes many of them give up on future professionalization, which can also lead many of them to have a lower high esteem, lower purchasing power, body changes in such a short time.

Regarding the sociodemographic characteristics, the adolescents declared themselves to be brown, living in rural areas, living in a consensual union, the education level seems to differ according to the age group where between 14-16 years old there was a predominance of education between 6th and 9th grade and 16-19 years old were in high school, while religion was also predominant Catholic in both groups. In relation to housing, the younger adolescents lived with family members and those aged 17-19 lived with their partner, however, both groups lived with a family income of less than one minimum wage.

In the study by Malaquias et al (2023) on the epidemiological characterization of the occurrence of pregnancy, childbirth and birth in adolescence in Brazil in the period from 1994 to 2019, where there was a reduction of 17.53% when comparing the two periods, and the majority of adolescents of the brown (56.5%) and single (83.4%) race. The self-color declared brown is also justified, because according to the 2022 IBGE census, the majority of the Brazilian population (45.3%) declared themselves as brown and moving to the North region this percentile increases to 67.2% (IBGE, 2022).

In the study by Miranda (2023) on the panorama of teenage pregnancy in Brazil in the period 2018-2019, it also showed that most of them were single, unlike what the current study shows. In another study that aimed to evaluate the temporal trend and factors associated with early pregnancy in the municipality of Vitória do Xingu, Pará, it was shown that 27.6% of the pregnant women in the municipality were adolescents, that 48.9% had an



average time of schooling of 8 to 11 years, 47.6% lived in a consensual union and 83.9% were brown (LIMA et al, 2024). In a cross-sectional study carried out in a peripheral neighborhood of Rio Branco–Acre in 2021, 53% were evangelical and lived with their partner and 97% did not have paid work (COSTA, et al., 2021).

In a study that seeks to analyze the incidence of teenage pregnancy at the Family Health Unit in the Cruz das Armas neighborhood in João Pessoa-PB in 2019, the author observed that most were beneficiaries of the Bolsa Família and that the family income is between R\$400.00 – R\$1,045.00. (SILVA, 2020).

Regarding the gynecological-obstetric history of the adolescent puerperal women, it was observed that most had menarche between 11-12 years of age, had their first sexual intercourse between 13-14 years of age, when asked about guidance before starting their sexual life, most stated that they did not seek any guidance and that they did not use contraceptives and that they never thought about the subject of pregnancy, However, there is also a significant number, with more than 20% of them in the two groups who stated that they wanted to become pregnant, most were in their first pregnancy, in the group of adolescents aged 17-19 years (31.8%) had had at least one abortion.

In a study carried out on the profile of sexual and reproductive practices of pregnant women aged 10 to 19 years, hospitalized in the public maternity hospital in Porto Velho-RO in 2022, adolescents had their first sexual intercourse between 15-19 years old (48%) and 86% did not use any contraceptive method and 95% had not planned their current pregnancy (ALVES et al., 2023). In the study by Sabino et al., (2018) on the previous obstetric characterization of pregnant adolescents in Teresina, Piauí in 2015, it was shown that in 51.6% the age of menarche was between 10 and 12 years old and the same percentile was 11 to 14 years old when they had their first sexual intercourse, 80.0% used some contraceptive method, 77.4% were in their first pregnancy, 93.5% had not had any type of abortion and 90.3% had not planned the pregnancy.

In this sense, Cordeiro et al. (2021) and Araujo et al (2022) reinforce the importance of purchasing power, poor sex education, and low condom use are some of the factors for the high incidence of teenage pregnancy. In addition, according to the WHO, the topic of sexuality is still considered a taboo in paternal-filial relations (WHO, 2018).

Monteiro (2019) states that adolescent pregnancy should be treated as a public health problem, as it correlates with low levels of formal education and poverty, and it was



observed that pregnancy rates in developing countries and early pregnancy remain high, unlike what occurs in most developed countries.

Pinto, Rogerio, Pereira (2023) corroborate the aforementioned authors, in addition to stating that health professionals should take into account the characteristics of each pregnant woman during prenatal, childbirth and postpartum consultations, as well as carrying out campaigns to prevent unplanned pregnancies, and that these are based on the appropriate dialogue for the public in question, especially those with greater vulnerabilities.

As well as public health, within homes there must also be dialogue between adolescents and their parents about sexuality, as it is not only about the issue of pregnancy, but also sexually transmitted infections, because it is at this stage of development that guidance and education must be given, so that they can have knowledge of their own body and safe sex, seeking prevention of health problems (FARIAS, et al., 2020; SBP, 2019).

Regarding perinatal outcomes, it was clear that adolescents aged 14-16 years had fewer prenatal consultations, but the main mode of delivery was vaginal, which differs from what occurs with adolescents aged 17-19 years who had more than 7 consultations, but the main mode of delivery was cesarean section, with the main medical indications being oligohydramnios, cephalopelvic disproportion and post-datism. The absolute majority of pregnancies were unique in all age groups. Most pregnancies result in full-term deliveries lasting 37 to 40 weeks in all groups, however there are cases of preterm birth, especially in the 14-16 age group where 10.9% of pregnancies ended before 37 weeks.

A study that characterized the epidemiological profile on the occurrence of pregnancy, childbirth, and adolescent birth rates between 1994 and 2019 in Brazil showed that adolescents had more than seven prenatal consultations (47.3%), deliveries between 37 and 41 weeks (88.8%), vaginally (65.6%) (MALAQUIAS, et al., 2023). Another study carried out in Pará showed the same characteristics, where the predominant mode of delivery is vaginal (62.9%), the average length of gestation was 37 and 41 weeks (SODRE, SCHRODER, SILVEIRA, 2023).

These data corroborate the study by Comin et al. (2020) that among adolescents, 70.6% had more than 06 prenatal consultations, 98.4% had a single pregnancy, 77.8% had vaginal delivery, but 62.9% had induced labor.

When complications during pregnancy, i.e., 75.6% of the complications and being the main ones among the 14-16 age groups, stated urinary tract infection (UTI) (43.1%), the 17-



19 age group reported no complications (42.3%), but a significant number also reported UTI (40.8%).

Regarding the profile of the NB, the present study showed that most newborns were alive at birth in all groups and, when they died, the cause of death, in its majority, was considered a miscarriage. Regarding Apgar scores at birth, most were between 8-10, females predominated in the 14-16 year old group (49.2%) and males in the 17-19 year old group (46.1%), with adequate weight in all age groups.

Once pregnancy in adolescents occurs, there is the possibility of an increase in poor obstetric outcomes, such as low birth weight (MENDES et al., 2022). In this study, unlike the one cited, an average of 74.0% were born with adequate birth weight, unlike other studies of the same wedge, which relates low birth weight to the biological immaturity of the maternal body (MENDES et al., 2022; MALAQUIAS, 2023), also described in world literature, where some authors relate adolescent pregnancy to the occurrence of pregnancy of less than 37 weeks, premature newborns and low birth weight, and also affirms the presence of complications with hypertensive pregnancy syndromes (GHS), urinary tract infections (UTI), premature rupture and miscarriage, anemia, eclampsia and postpartum depression (SOARES, et al., 2024; BATISTA et al., 2021).

Comin et al. (2020) in a study carried out with adolescents in the municipality of Alvorada in Rio Grande do Sul, it was observed that 51.7% were male, that the mean birth weight was 3.14 kg and with an Apgar score of the first and fifth minutes the mean was 9.

In view of this, PAHO (2018) and its Member States deliberated on the Plan of Action for Women's, Children's, and Adolescents' Health 2018-2030, seeking to ensure healthy lives and well-being for all women, children, and adolescents in the Americas. This plan aims at integrated care based on the life cycle, with health as a fundamental human right and with equity in health, in addition to identifying gender equality, cultures of each one and the life course, as well as accountability and transparency, as transversal axes.

CONCLUSION

Most of the adolescents who became pregnant in the study region are brown and live in rural areas, predominantly in the age group of 16-19 years, with low education and from families with limited socioeconomic conditions, most of whom live with family members and without a partner. This combination of factors highlights a vulnerable population, where early pregnancy can be both a cause and a consequence of social exclusion.



Teenage pregnancy is often associated with a lack of planning, with many young women starting their sexual lives early without adequate guidance and without the use of contraceptive methods. However, with a considered number of adolescents who already had the desire to get pregnant. The lack of guidance and knowledge about contraception seems to be one of the main reasons for the high incidence of pregnancy in this age group.

The most frequent complications during adolescent pregnancy were, consecutively, urinary tract infections, anemia and hypertension/preeclampsia, in all fields of study and occurring mainly among adolescents in rural areas. Regarding the reasons that led to the hospitalization of the pregnant adolescent, the factors were multicausal, among which preeclampsia stands out.

Regarding perinatal outcomes, most adolescents result in full-term deliveries (37 to 30 weeks), but there are high rates of cesarean sections and obstetric complications. In addition, although most newborns have adequate birth weight. There are concerns about low birth weight in some cases, which may be linked to a lack of adequate prenatal care.

It is crucial to implement comprehensive sexuality education programs that reach adolescents in schools and rural communities. These programs should provide clear information about contraception, reproductive health, and family planning. Early sexuality education can help prevent unplanned pregnancies by providing adolescents with the tools they need to make informed decisions.

Public policies should focus on the socioeconomic development of rural areas, providing better education and employment opportunities for adolescents, which can help reduce the incidence of teenage pregnancy. Investing in training and entrepreneurship programs for young people can be an effective strategy to improve the life prospects of these adolescents.

Family support programs that include parenting education and community involvement can help create a more conducive environment for the education and healthy development of adolescents. Family support is essential to ensure that adolescents have the necessary support to avoid early pregnancy and its consequences.



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