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ORIGINAL ARTICLE

Teenage pregnancy in Espírito Santo: planning maternal and child health care

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Abstract

The present study corresponds to a descriptive, cross-sectional, retrospective epidemiological research, with a quantitative approach. The general objective is to describe the clinical epidemiological profile of teenage pregnancy in the state of Espírito Santo in the years 2010 to 2019. The research was carried out using data obtained from the DATASUS platform, through the SINASC program. This study is relevant in making it possible to better understand the population served and identify more precisely the gaps in public policies that can be improved or created. It was found that in 2015, 56,941 live births were registered in the general population, the highest rate recorded between the years 2010-2019. Of these, 16.7% (9,543) were born to mothers aged between 10 and 19 years. Corroborating the analysis, the highest pregnancy rate in the adolescent population was recorded in 2013, when 18% (9,764) of pregnancies in the state of Espírito Santo were among adolescents. It was also evident that 8.4% (7,485) of babies were born weighing 2,499g or less and that 0.6% of newborns were diagnosed with some congenital anomaly. It can therefore be concluded that high rates of teenage pregnancy denote flawed strategies, impacting the growth of healthier generations in the present and future in all aspects, including economic, making it essential to know the data collected for planning maternal and child care.

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INTRODUCTION

Media and science highlight sex as essential in human life, not only for reproduction, but also as a source of pleasure. Thus, the individual in the biopsychosocial development phase faces a major dilemma: they are inserted in a society with dialogue restricted by rigid and extremist positions.

This dialogue is necessary as it provokes reflection, forming awareness and opinion, since the teenager, at the same time as he feels his sexuality flowing, can feel guilt, shame or start to exercise it in an irresponsible way due to its trivialization.

Nunes[1] highlights that sexual initiation characterizes a rite of passage for individuals and societies, so that culture traces rewarding paths for different social groups: adolescents construct new social roles through socialization with their partners and therefore play, through sexuality, a way of sociability and construction of identity.

It is important to highlight that the Ministry of Health (MS) follows the World Health Organization (WHO) convention that defines adolescence as the period of life between 10 and 19 years[2]. Among public health issues in this age group, pregnancy stands out in most countries, especially in developing countries.

According to the Brazilian Society of Pediatrics[3], pregnancy in this age group can transform this vital moment into many crises and risks for the adolescent, the newborn (NB), the family and society, increasing the costs associated with the event for the health system, and increasing mortality rates, in addition to impacting the future of several generations.

According to the National School Health Survey (PENSE)[4], teenage pregnancy is the result of a lack of prevention or inadequate prevention at this age, with 7.9% of girls aged 13-17 who have already had sexual intercourse become pregnant at some point in their lives, of these, 8.4% were from public schools and 2.8% from private schools.

The state of Espírito Santo has an estimated population of 3.885 million inhabitants. Of this population, 1,783,734 (50.75% of the state's total) are women[5], with 8.7% of girls between 13 and 17 years old who have had sexual intercourse and become pregnant[6].

There are several factors that are associated with cases of teenage pregnancy. However, socioeconomic conditions, family relationships, contexts of violence, among others, are aspects that increase social vulnerability and exposure to risky sexual behaviors.

Characterizing the epidemiological profile of postpartum women and newborns is crucial. This profile forms the basis for planning actions in health, infrastructure and education. Thus, it becomes possible to make measures more efficient and effective for this population group.

To monitor and analyze this data, in 1990 the Ministry of Health implemented the Live Birth Information System (SINASC) throughout the national territory. After more than three decades, its expansion is already consolidated, so that the data is processed and analyzed by the states and sent to the Ministry of Health (MS) to be incorporated into the national bank[7].

These data come from the Declaration of Live Birth (DNV), which was standardized through Ordinance SVS no. 116, of February 11, 2009[8], which establishes that it is a standard document and mandatory for use throughout the national territory. The information evaluated includes data on the woman in labor, pregnancy, prenatal care, childbirth, the newborn, congenital diseases and others. Silva et. al[7] also highlight that SINASC is one of the SUS (Brazilian Public Healthcare System) strategies for the decentralization of actions, favoring care planning and management of healthcare services according to local needs.

Therefore, this study aims to analyze the epidemiological profile of newborns and parturient women aged 10 to 19 years in the state of Espírito Santo, in the years 2010 to 2019, based on data obtained through SINASC, with the justification of organizing the data creating a profile of teenage pregnancy so that strategic planning actions can be guided.

METHODOLOGY

This is a descriptive, cross-sectional, retrospective epidemiological study, with a quantitative approach involving live births in the state of Espírito Santo, between 2010-2019. A non-probabilistic sample was chosen due to temporal saturation and the sample is made up of all live births to mothers aged between 10-19 years, in the state of Espírito Santo, between the years 2010-2019, totaling 88,414 patients. The data were obtained from the Ministry of Health platform, DATASUS. As for the population studied, it is part of the healthcare system in the state of Espírito Santo.

All live births to mothers between 10-19 years of age were included, between 2010 and 2019, in the state of Espírito Santo and included in SINASC (Live Birth Information System), through the DATASUS platform, regardless of location of residence of the parturient woman. Notifications without description of the municipality of residence were excluded, characterized as ignored due to lack of data.

The variables analyzed were age; ethnicity/color; presence of congenital anomaly; live births; mother's years of education; marital status; duration of pregnancy; type of pregnancy; Robson group; adequacy of prenatal care; education; child's birth weight; vulnerable municipality.

Since the study comes from the Ministry of Health database and there will be no personal identification of the participants, meaning there will be no intervention due to

the study or harm to the patient, a waiver of the free and informed consent form was requested.

RESULTS

According to data obtained from SINASC, through the DATASUS platform, the following sample characteristics can be observed:

Table 1. Profile of the mother and child born between 2010 and 2019 in Espírito Santo

Variable		N (%)
Year with the highest general birth rate	2015	56,941
Year with the highest birth rate among mothers with ages between 10 and 19 years of age	2013	9,764
Mother's age range	15-19 years	95.4% (84,393)
Ethnicity / skin color	Brown	74.2% (65,619)
Marital status	Bachelor	66% (58,420)
Schooling	8-11 years of schooling	58.7% (51,964)
Live births from mothers 10-19		62.6% (87,657)
Congenital anomaly	Yes	0.6% (541)
Gestation duration	37-41 weeks	85.5% (75,585)
Type of pregnancy	Single	98.8% (87,513)
Robson's group	1 - nulliparous with a single fetus and with delivery at more than 37 weeks of gestation, and with spontaneous labor	25.5% (22,639)
Adequacies to prenatal	More than adequate	48.9% (23,969)
Birth weight	3,000 g – 3,999g	57% (60,031)

It is worth noting that in 1996, SINASC included the baby's "color/race" data in the LVD and in 2011 there was another change, starting to record the mother's "color/race". In 2012 there was a recommendation that color/race be collected from both the mother and the newborn. Through Ordinance No. 344 of February 1, 2017, it was established that the person responsible for the baby must declare the skin color/race[9]. Regarding the skin color/ethnicity of the studied population, in all years (2010-2019), the majority (74%; 65,619) were declared mixed race.

It is necessary to point out that the variable "Quantitative adequacy of prenatal care" means adequate prenatal care beginning in the first trimester of pregnancy and a minimum of six prenatal consultations.

DISCUSSION

SINASC data are indicators of the care effectiveness during pregnancy and childbirth, providing information about the needs of the population and enabling planning in this field.

Although SINASC systematizes all this information through a network created for its operation, the present study shows the need to raise awareness among professionals who work in data collection, even in healthcare institutions, to collect more information and thus provide a real overview of the profile of pregnant women and newborns in the region.

It is noted that some important variables had a relevant percentage of incomplete information, such as Adequacy of prenatal care, which presented 42.1% (37,256) of unknown information, as well as the Robson Groups variable, with 42.1% (37,256) of pregnant women did not have the necessary data provided for categorization.

Silva, Silva and Carniel[9] studied the patterns of pregnant women in Belo Horizonte/MG in 2016 and identified that Robson's groups with the highest percentage were Group 5 (21.7%), then Group 3 (20.9%) and Group 2 (19.4%). This is different from what was found in Espírito Santo, where 25.6% (22,639) of mothers were classified in Group 1, as well as 11.8% (10,433) of mothers were classified in Group 2 and 5.6% (4,970) in Group 3.

The divergence occurred in relation to group 5 and group 1. While in Espírito Santo, Group 1 corresponds to the majority of mothers, in Belo Horizonte the same group was made up of 15.1% of pregnant women, being smaller than Group 2 (19 .4%).

A possible justification for this disagreement is that there is no standard protocol for the clinical assessment of pregnant women. Therefore, the thresholds for diagnosing dilatation arrest, fetal descent, limit for performing a cesarean section after induction of labor or indication of an elective cesarean section may vary between institutions[10].

According to SVS[11], in 2019 there were 7,253 live births to teenage mothers in Espírito Santo, a similar figure to the number born in 2018 (7,759) and 2017 (8,165). In 2016, 8,555 babies were born to teenage mothers, in 2015, 9,470 newborns were recorded and in 2014, 9,956 were recorded. There was also no significant variation observed between births between 2013 (9,748), 2012 (9,362), 2011 (9,085) and 2010 (9,061).

In a study carried out in the state of Piauí[12], the authors found an average of 97.9% of pregnancies with single fetuses between 2005 and 2015. In Espírito Santo, 98.7% (87,265) of pregnancies were of single fetuses.

According to the WHO[13], the appropriate number of prenatal consultations is 6 or more. It was found that between

2010 and 2019, 68.4% (35,027) of pregnant women who had their data recorded had six prenatal consultations or more, indicating that Espírito Santo must continue with investments to raise awareness among the population about prenatal care.

Regarding newborn weight, 62.4% (55,237) of newborns weighed from 3 kg to 3,999 kg at birth and 8.4% (7,485) were babies born weighing 2,499 g or less. Uchimura; Pelissari and Uchimura[14] emphasize that the newborn's weight is an indicator of the population's health level, and is associated with the socioeconomic conditions of a country, enabling us to infer that ES has adequately offered prenatal care, but that the rate of low birth weight newborns birth still needs to decrease.

In relation to the education of pregnant women, it is noted that 37.5% (33,157) had 0 to 7 years of education. 58.7% (51,964) of mothers studied had 8 to 11 years and 1.6% (1,488) had 12 or more years of study, equivalent to higher education. Conde-Agudelo et. al.[15], highlight that higher education provides a better quality of life as it indicates higher income and consequently more care and protection for the baby.

In line with what was recorded by Santos; Silva; Costa[10], married women and those in a stable marital relationship correspond to the minority of the sample (32.5%; 28,765). These data can be explained due to the limitation regarding the age group studied.

According to the WHO, gestational age can be classified as preterm: when below 37 weeks; term: 37 and 41 weeks and 6 days of gestational age and post-term: born after 42 weeks of gestational age. This indicator is relevant because prematurity is related to neonatal mortality and burdens healthcare services due to greater complexity[16]. Between 2010 and 2019, 85.1% (75,311) of babies born at term were registered in Espírito Santo.

around 6% of live births in the world are diagnosed with some type of congenital anomaly[17]. In the state analyzed, a lower rate than the global figure was found, with 0.6% of newborns diagnosed with some congenital anomaly.

After analyzing the data, the relevance of the indicators organized by SINASC as a basis for planning maternal and child health care and interventions became evident.

FINAL REMARKS

Although progress has already been seen in public policies aimed at teenage pregnancy, the high rate of teenage pregnancy highlights flaws in current policies, impacting society and public coffers.

When analyzing prenatal consultations, prenatal care is occurring adequately. As well as births, with babies with adequate weight and those born at term.

Some indicators need improvement, such as the age range of pregnant women between 2010-2019. In this period, 16.2% (88,414) were between 10 and 19 years old. This is worrying not only because of the health risks, but also because of the social conditions that these newborns will face.

Although the data organized by SINASC is efficient, the reduction of unfilled information will strengthen the system and its ability to show the real panorama of the issue.

Therefore, carrying out this study provided a scenario of parturient women in the state of Espírito Santo, newborns and their pregnancies, which contributes to analyzing prenatal care and childbirth; and designing strategies to improve maternal-children quality of life through the adaptation of current public policies and the creation of new ones.

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