ISSN 0001-6012 eISSN 2215-5856
Rev. Acta Médica Costarricense
Edited by: Colegio de Médicos y Cirujanos de Costa Rica
2024 / January-March; 66 (1): 1-7

Original

Sociodemographic and obstetric characteristics of pregnant adolescents attending prenatal care at basic comprehensive health care teams in an urban and rural community in Costa Rica

Lilliam Marín-Arias[1] , Yamileth Gutiérrez Obregón[2]

Traducción original: Características sociodemográficas y obstétricas de adolescentes embarazadas que asisten a control prenatal en los equipos básicos de atención integral en salud en una comunidad urbana y otra rural de Costa Rica. Acta méd. costarric.; 66(1):1-8. DOI: 10.51481/amc.v66i1.1380

Authors' affiliation:
[1]Universidad de Costa Rica, Instituto de Investigaciones en Salud (INISA), Sección de Infección-Nutrición. San José, Costa Rica. lilliam.marin@ucr.ac.cr
0000-0001-9426-1225.
[2]Universidad de Costa Rica, Escuela de Enfermería. San José, Costa Rica. yamileth.gutierrez@ucr.ac.cr
0009-0004-2031-6624.

Abbreviations:
CCSS; Costa Rican Social Security.
EBAIS; Equipo Básico de Atención Integral de Salud (Comprehensive Basic Health Care Team).
INEC; Statistics and Census Institute.
WHO; World Health Organization.
PAHO; Pan American Health Organization.
UNFPA; United Nations Population Fund.

Funding: This project 742-B3-324 was financed by the Vice Rector's Office for Research of the the University of Costa Rica.

Acknowledgments and collaborators: To the Vice Rector's Office for Research of the University of Costa Rica for the Intersedes Research Stimulus Fund allocated to the research project.
To the medical directors of the Golfito and Alajuelita
Health Area for the support provided for the realization of this project.
To the adolescent mothers who participated in this study for opening the doors of their homes to us during the two years of data collection.

✉: lilliam.marin@ucr.ac.cr

Abstract

Aim: To describe the sociodemographic and obstetric characteristics of a group of pregnant adolescents who attend prenatal care in the Comprehensive Basic Health Care Team (EBAIS – Equipos Básicos de Atención Integral en Salud) in an urban and rural community of Costa Rica.

Methods: A qualitative cross-sectional descriptive study was carried out in rural (Golfito) and urban (Alajuelita) communities in Costa Rica. The study population consisted of all pregnant adolescents who met the following inclusion criteria: being under 20 years of age, attending prenatal care at the EBAIS of the study communities, and signing the assent or informed consent. To collect the information, each pregnant adolescent was visited at their residence, an interview was carried out, and the data collection instrument developed for this purpose was completed. The information was entered into a database created using the Excel 2007 program of Microsoft Office, which was used to generate descriptive statistics.

Results: A total of 56 pregnant adolescents participated (14 in rural areas and 42 in urban areas), with an average age of 17 ± 1.5 years, most of them are Costa Rican, single, have not completed their secondary studies, and are engaged in domestic activities. 26.8% of adolescents had previous pregnancies, on average they started prenatal care at 10.9 ± 5.6 weeks of pregnancy and the majority (73.2%) started the check-up during the first trimester of pregnancy.

Conclusions: The results of this study offer an approximation of the sociodemographic and obstetric aspects of pregnant adolescents who attend prenatal care in rural and urban communities in Costa Rica, this shows that most of them began their prenatal control in the first trimester of pregnancy, a fact that allowed them to receive health care aimed at health promotion and disease prevention.

Keywords: Adolescence, pregnancy, prenatal care, sociodemographic characteristics.

Received Date: December 5, 2023 **Accepted Date**: August 28, 2024

Adolescence is the period of the life cycle between 10 and 19 years of age, which is classified into three stages: early adolescence (10 to 13 years old), middle adolescence (14 to 16 years old), and late adolescence (17 years old, and can extend up to 21 years old). (UNICEF. What is adolescence? [Internet]. Uruguay: UNICEF; 2021. [accessed December 4, 2023]. Available at: https://www.unicef.org/uruguay/media/5416/file/Ficha%201%2020Caracter%C3%ADsticas%20de%20la%20adolescencia.pdf).

This stage is characterized by significant biological, psychological, and social transformations. The experiences, knowledge, and skills acquired at this stage have important implications for the individual's opportunities in adulthood (UNICEF. Programmatic Guide for Parenting During Adolescence. [Internet]. UNICEF, 2021. [accessed December 4, 2023]. Available at: https://www.unicef.org/lac/media/29781/file/La-crianza-durante-la-adolescencia.pdf).

During adolescence, sexuality also undergoes important changes and, in general, it is at this stage when the first coital sexual approaches occur. In Costa Rica, the onset of sexual life is early in both men and women and largely occurs before the age of majority. 14 percent of women and 24 percent of men aged 15 have already started their sexual life and the proportion of people who have had sexual relations increases rapidly with age (Ministry of Health, Central American Population Centre (CCP), Costa Rican Demographic Association, United Nations Population Fund (UNFPA). II National Survey of Sexual and Reproductive Health Costa Rica 2015. [Internet]. Costa Rica; 2016. [accessed December 4, 2023]. Available at https://ccp.ucr.ac.cr/documentos/portal/Informe-2daEncuesta-2015.pdf)

Active sexual life in adolescence, together with the absence of adequate sexual and reproductive education, leads to high rates of unwanted pregnancies and sexually transmitted diseases, which represents a risk for this population group, which is particularly vulnerable to various situations of abuse (Pan American Health Organization (PAHO). Sexual and reproductive health is within the reach of poor and vulnerable adolescents. [Internet]. Washington, DC: PAHO; 2013). [accessed December 4, 2023]. Available at https://www.paho.org/derechoalaSSR/wp-content/uploads/2014/12/Salud-sexual-y-reproductiva-al-alcance-de-adolescentes-pobres-y-en-situacion-de-vulnerabilidad.pdf). Although Costa Rica has managed to reduce adolescent pregnancy in the last two decades, through various prevention actions, 9.2% of births in 2022 corresponded to women under 20 years of age; this denotes a public health problem for the country (Institute of Statistics and Census (INEC). Demographic statistics. [Internet]. Costa Rica: INEC; 2023. [accessed December 4, 2023]. Available at: https://inec.cr/estadisticas-fuentes/estadisticas-demograficas).

The World Health Organization (WHO) classifies adolescent pregnancy as a high-risk pregnancy due to a higher prevalence of prematurity, low birth weight, and, therefore, higher neonatal mortality (WHO. Pregnancy in adolescence. [Internet]. Geneva: WHO;2022. [accessed December 4, 2023] Available in http://www.who.int/mediacentre/factsheets/fs364/es/

Currently, the global adolescent pregnancy rate is estimated at 46 births per 1,000 girls, a figure that leads Latin America and the Caribbean to be the region with the second highest rates in the world, estimated at 66.5 births per 1,000 girls between 15 and 19 years of age, only surpassed by those of sub-Saharan Africa (PAHO, WHO, UNFPA, UNICEF. Accelerate progress towards reducing adolescent pregnancy in Latin America and the Caribbean. Technical consultation report. [Internet]. Washington, D.C.: WHO; 2018. [accessed December 4, 2023]. Available at: https://lac.unfpa.org/sites/default/files/pub-pdf/ESP-EMBARAZO-ADOLES-14febrero%20FINAL_5.PDF

Adolescent pregnancy can also have negative social and economic impacts on young women, their families, and their communities. Early pregnancy limits the future development opportunities of these women and contributes to maintaining poverty and low schooling[1] (WHO. Pregnancy in adolescence. [Internet]. Geneva: WHO;2022. [accessed December 4, 2023] Available at http://www.who.int/mediacentre/factsheets/fs364/es/). Currently, adolescent pregnancy is considered a serious public health problem because its incidence increases annually and because it is the poorest and most vulnerable population in society that is suffering from it most frequently[2,3].

In Costa Rica, different laws and international conventions safeguard adolescents through protection and health care. Therefore, every pregnant adolescent has the right to receive quality comprehensive prenatal care that responds to her needs in a timely, effective, and efficient manner (Costa Rican Social Security Fund (CCSS). Clinical Protocol for Comprehensive Care for Pregnancy, Childbirth and Postpartum in the Health Services Network. [Internet]. Costa Rica: CCSS; 2022. [accessed December 4, 2023]. Available at https://www.cendeisss.sa.cr/wp/wp-content/uploads/2023/02/Protocolo-de-Atencion-Clinica-integral-al-embarazo-parto-y-postparto-2.pdf).

The objective of this study was to describe the sociodemographic and obstetric characteristics of a group of pregnant adolescents attending prenatal care in the Comprehensive Basic Health Care Teams in an urban and rural community of Costa Rica.

Methods

A qualitative cross-sectional descriptive study was carried out in the two communities, Alajuelita and Golfito, which had the highest prevalence of adolescent pregnancy in Costa Rica at the beginning of the study. According to INEC 4 for the project's purposes, the canton of Alajuelita is classified as an urban community and Golfito as a rural community.

To participate in the study, pregnant adolescents had to meet the following inclusion criteria: be under 20 years old and attend prenatal care in the communities of the EBAIS. In addition, they had to sign the corresponding consent and informed assent.

ISSN 0001-6012 • eISSN 2215-5856 / Acta Médica Costarricense. 2024 / Jaanuary-March; 66 (1): 1-7

The study population consisted of all pregnant adolescents who met the inclusion criteria and agreed to participate in the study, a sample size was not estimated. The project counted on the collaboration of the medical directorates of the CCSS health areas of Alajuelita and Golfito, whose medical records department is responsible for providing the list of pregnant adolescents who attend prenatal control for the first time in the selected EBAIS.

The people responsible for the project made first contact by telephone with the potential participants of the study, who were notified by telephone about the general information on the project. If they showed interest in participating in the study, they were visited at their home where they were explained in detail what the study consisted of and asked to sign the informed consent/assent.

Data collection was carried out between 2015 and 2017. To collect the information, each pregnant adolescent was visited at her residence and an interview was conducted with the young woman, where the data collection instrument developed for this purpose was completed.

The data collection instrument was a questionnaire with the following sections: general data of the participant, sociodemographic characteristics of the household, family and personal medical history, and clinical history of the current adolescent pregnancy. The last three aspects mentioned are the information found in the perinatal card of the pregnant adolescent, which is provided to women at the beginning of their prenatal control at the EBAIS for personal use.

The data obtained from the interviews were entered into a database developed in the Excel 2007 program of Microsoft Office, which was used to perform the descriptive statistics of the data (measures of central tendency for continuous variables and frequency distribution for categorical variables).

This project was funded by the Vice-Rectory for Research of the University of Costa Rica and approved by the Scientific Ethics Committee of the University of Costa Rica in session 244-2012 and by the Institutional Scientific Ethics Committee of the CCSS in session 008-04-2015.

Results

A total of 56 pregnant adolescents participated, 42 residents of the urban community, and 14 residents of the rural community. The predominant nationality of the young participants was Costa Rican (92.9%), and the rest of the adolescents were of Nicaraguan origin. Only in the urban community, the participants were of foreign origin (Table 1).

Table 1. Sociodemographic characteristics of the pregnant adolescents participating in the study according to urban (Alajuelita canton, San José) and rural (Golfito canton, Puntarenas), Costa Rica

	Rural (n=14)	Urbana (n=42)	Total (n=56)
Place of birth			
Costa Rica	*100.0*	*90.5*	*92.9*
Nicaragua	*0.0*	*9.5*	*7.1*
Marital status			
Single	*50.0*	*52.3*	*51.8*
Married woman	*7.1*	*4.8*	*5.3*
Common-law marriage	*42.9*	*42.9*	*42.9*
Level of schooling			
Incomplete primary school	*0.0*	*11.9*	*8.9*
Complete primary school	*7.1*	*9.5*	*8.9*
Incomplete secondary school	*85.7*	*71.4*	*75.0*
Completed secondary school	*7.1*	*4.8*	*5.4*
Incomplete university degree	*0.0*	*2.4*	*1.8*
Current Occupation			
Domestic activities	*35.7*	*54.8*	*50.0*
Student	*64.3*	*40.5*	*46.4*
Paid work	*0.0*	*4.8*	*3.6*
Insurance condition			
Direct	*0.0*	*4.8*	*3.5*
By the State	*50.0*	*66.7*	*66,1*
Familiar	*50.0*	*23.8*	*30.4*

The predominant marital status in the study population was single (51.8%), followed by the common-law group (42.9%). Of the adolescents who indicated they were in a common-law union with their partner, only 3 adolescents from the urban community reported living independently of the primary family nucleus (Table 1).

When assessing the schooling of pregnant adolescents, it was observed that 75% of the population has incomplete secondary education, followed by incomplete and complete primary school (8.9%). Regarding the level of schooling according to area of residence, it was found that in rural areas there was a predominance of adolescents with incomplete secondary schooling (85.7%), followed by primary and secondary education (7.1%). Regarding adolescents in urban areas, incomplete secondary school stood out (71.4%), followed by incomplete primary school (11.9%) and completed primary school (9.5%) (Table 1).

When the occupation of adolescents was explored, it was found that most young women in rural areas were studying (64.3%), a situation that does not occur with adolescents in urban areas, where most were engaged in domestic activities typical of the home (54.8%). It is important to note that two cases (3.6%), work for pay because they are of legal age and are in the urban area (Table 1).

Another aspect investigated in the adolescents was their CCSS insurance condition. It was found that 66.1% of young women benefit from non-contributory insurance (by the State), followed by 30.4% of adolescents who receive family insurance (Table 1). When inquiring how pregnant adolescents travel to their prenatal care, it was found that 69.1% of them do so on foot while 16.4% travel by bus. The rest of the adolescents do it by other means.

When assessing the state subsidies and scholarships that adolescents receive, only 19.6% indicated that they received some aid, specifically, from the Joint Institute of Social Assistance (IMAS) (8 cases), the National Children's Trust (PANI) (2 cases), and the Ministry of Labor and Social Security (1 case).

The average age of the pregnant women was 17.4 ± 1.5 years, ranging from 13 to 19 years (Table 2). Among the obstetric characteristics obtained from the perinatal care of pregnant adolescents, 21 young people (11 in the rural community and 10 in the urban community) had diverse family histories, including diabetes mellitus, arterial hypertension, uterine pelvic surgery, and infertility.

Table 2. General obstetric characteristics of the pregnant adolescents participating in the study according to the community of urban residence (canton of Alajuelita, San José) and rural (canton of Golfito, Puntarenas), Costa Rica

	Rural (n=14)	Urban (n=42)	Total (n=56)
Current age (years)	17,1 ±1,5	17,5 ±1,5	17,4 ±1,5
Age at the beginning of the prenatal checkup (weeks)	11,3 ±6,0	10,8 ±6,0	10,9±5,6
Age of first pregnancy (years)	16,6 ±1,9	17,0 ±1,6	16,9 ±1,9
Number of pregnancies			
1	79,0%	71,0%	73,2%
2	7,0%	10,0%	8,9%
3	14,0%	19,0%	17,9%
Trimester of initiation of prenatal care			
I Trimester	57,1%	78,6%	73,2%
II Trimester	42,9%	21,4%	26,8%

Not all the participants in the study were in their first pregnancy. Of the 56 participants, 15 adolescents (26.8%) had previously been pregnant, distributed as follows: 8.9% of the women had a previous pregnancy (two live births, 2 miscarriages and one ectopic pregnancy) and 17.9% of the adolescents had two previous pregnancies (whose culmination had eight live births and two abortions). The average age of adolescents when they became pregnant for the first time was 16.9 ± 1.9 years with an age range of 12 to 18 years (Table 2), such data announce that in both communities' young women became pregnant early, Golfito presented one case at 12 years and Alajuelita presented 2 cases of pregnant adolescents at 14 years of age.

ISSN 0001-6012 • eISSN 2215-5856 / Acta Médica Costarricense. 2024 / Jaanuary-March; 66 (1): 1-7

Pregnant adolescents' initiation of prenatal care was on average at 10.9 ± 5.6 weeks of pregnancy, which is similar to the communities studied (Table 2). In both, there were adolescents who started their prenatal care early (at 4 weeks of pregnancy) and there were also those who started it late (24 weeks of pregnancy in the rural community and 26 weeks of pregnancy in the urban community). However, 73.2% of adolescents started their prenatal care in the first trimester of pregnancy.

Discussion

When describing the sociodemographic and obstetric characteristics of a group of pregnant adolescents who attend prenatal care in the EBAIS located in an urban (Alajuelita) and rural (Golfito) community of Costa Rica, it was found that in both towns, regardless of the social and demographic status of the adolescents, there is an EBAIS near their place of residence that provides them with health care and allows them to start prenatal care at an early stage of pregnancy. This situation facilitates the monitoring of pregnancy and the early identification of situations that may put the health of the mother and child at risk.

In the cases of the adolescents studied, the family nucleus represents a fundamental support for the young women to cope with this situation of pregnancy, since most of them are single and depend directly on economic resources and family support networks. It should be noted that in the communities studied, 42.9% of pregnant adolescents are living in a common-law union with the father of their children. This cohabitation takes place primarily within the framework of the nuclear family of the adolescent or her partner. So, instead of emancipating themselves as a couple, they become dependent on the family to meet their economic and social needs. The above situation has been described in studies carried out with pregnant young women, where the adolescent's family plays a preponderant role in the economic and emotional stability of the adolescent.[5-7]

This research revealed a predominant proportion of pregnant adolescents in Alajuelita and Golfito who have not completed their primary or secondary education. This finding shows a worrying trend towards the relationship between early pregnancy and school dropout in disadvantaged socioeconomic contexts. The non-completion of primary and secondary education among adolescents constitutes a limitation for opportunities for skilled employment and professional development.[7-9] It is necessary to recognize that the dropout of school of pregnant adolescents not only puts at risk their economic security but also their ability to participate in the public and political life of their community, which perpetuates the intergenerational cycle of poverty, economic exclusion, social and educational marginalization (UNFPA. A common mission: fewer teenage pregnancies in Latin America and the Caribbean. [Internet]. UNFPA; 2018. [accessed June 28, 2024]. Available at: https://lac.unfpa.org/es/news/una-misi%C3%B3n-com%C3%BAn-menos-embarazos-en-la-adolescencia-en-am%C3%A9rica-latina-y-el-caribe). Likewise, maternal education has been associated with better health outcomes for the mother and her child, allowing for greater capacity for informed decision-making about overall health and well-being.[10]

Regarding health care, most pregnant adolescents enjoy this benefit thanks to the fact that Costa Rica has a solidarity-based social security system, through non-contributory insurance that is assumed by the State. This health protection provided to the adolescent population is due to compliance with the law that guarantees the rights of young persons (Law No. 8612 Ibero-American Convention on the Rights of Young Persons. La Gaceta. No. 231 on November 30, 2007. Available at https://bit.ly/3MUQZ9w) and the Children and Adolescents Code (Act No. 7739, the Children and Adolescents Code. La Gaceta No. 26 of February 6, 1998. Available at https://bit.ly/3BcZ1Ia). In addition, when they are pregnant, they are protected by the law that protects adolescent mothers (Law No. 7735 General Law on the Protection of Adolescent Mothers. La Gaceta No. 12 September 30, 2002.Available at: https://bit.ly/4eaF5nS).

Health insurance allows pregnant adolescents to access prenatal control at the EBAIS where they are attached. In Costa Rica, prenatal care is one of the most important strategies to promote the health of women and children, as it seeks to provide comprehensive quality care that responds to their needs in a timely, effective, and efficient manner (CCSS. Clinical Protocol for Comprehensive Care for Pregnancy, Childbirth and Postpartum in the Health Services Network. [Internet]. Costa Rica: CCSS; 2022). [accessed December 4, 2023]. Available at https://bit.ly/4e7BBCs).

It is important to note that 73.2% of the pregnant adolescents studied began their prenatal care in the first trimester of pregnancy. However, when assessing the area of residence, it is adolescents from urban areas who attend prenatal care in greater proportion (78.6%) during the first trimester compared to adolescents from rural areas (57.1%). In addition, in both communities, some cases begin their prenatal control at 4 weeks of pregnancy, which constitutes a positive action for maternal-fetal health. However, there were also cases of late prenatal control (second trimester of pregnancy), which may have an impact on the early non-identification of maternal-perinatal risk factors.

The WHO notes that antenatal care represents a special time to comply with several important actions for health care (health promotion, screening and diagnosis, and disease prevention). Compliance with these actions promptly and based on objective data can save lives. Prenatal control acquires greater importance if it is an adolescent, since due to the immaturity of her body she has a greater risk of presenting complications (Pan American Health Organization. WHO recommendations on antenatal care for a positive pregnancy experience. [Internet]. PAHO;2018. [Accessed July 01, 2024] Available in: https://iris.paho.org/bitstream/handle/10665.2/49550/9789275320334_spa.pdf?sequence=1&isAllowed=y

Scientific evidence indicates that one of the factors that guarantee the follow-up of prenatal care by pregnant women is that the health center where they provide care is located near their residence [11,12] (Castillo Ávila I. Factors associated with the use of prenatal control by pregnant women in the district of Cartagena 2011. (degree thesis). Colombia: Universidad de Cartagena, 2011). (Accessed on 01 July 2024). Retrieved from https://iris.paho.org/bitstream/handle/10665.2/49550/9789275320334_spa.pdf?sequence=1&isAllowed=y).

In this sense, the adolescents who participated in the study have an EBAIS near their place of residence, which allows most of them to attend to their prenatal control on foot and comply with the follow-up established throughout pregnancy. The proximity of public health services, both in rural and urban communities, represents the social investment that the State has made to guarantee access to health care as a human right in the adolescent population.

Considering the above, it is necessary that the health care provided to pregnant adolescents comprehensively covers aspects related to sexual and reproductive health, which allows them to plan a life project where sexuality is enjoyed safely, and have access to a contraceptive method of their choice that is safe, effective, affordable and acceptable. This allows for planned pregnancies and for the underproductive space to be within the time recommended by the WHO, which takes at least two years to carry out the recovery of the mother's health [13] (United Nations Population Fund [UNFPA]. Sexual and reproductive health. [Internet]. UNFPA; 2022. [accessed July 01, 2024]. Available at: https://www.unfpa.org/es/salud-sexual-y-reproductiva).

As described above, having a short underproductive space affects both the mother and her child. In the case of the mother, it can generate high-risk pregnancy because recovery from body wear and tear is not achieved. [13] Likewise, a child born less than two years after the birth of the sibling who precedes him or her has a higher risk of dying in infancy than one born more than two years apart, as he or she may have a higher risk of prematurity, low birth weight, birth trauma, and increased probability of infections at birth[13-14] (Fonseca Aguilar E. Analysis of the relationship between intergenic intervals and child survival, Honduras 2001. (Master's Thesis in Population and Health). Costa Rica: Universidad de Costa Rica, 2006). (Accessed on 01 July 2024). Retrieved from https://ccp.ucr.ac.cr/documentos/bibliotecavirtual/31.pdf. Against this backdrop, the prenatal care that women receive must seek to promote the health of the mother and her child through the timely identification and management of risk factors[15,16] (CCSS. Clinical Protocol for Comprehensive Care for Pregnancy, Childbirth and Postpartum in the Health Services Network. [Internet]. Costa Rica: CCSS;2022. [accessed December 4, 2023]. Available in: https://www.cendeisss.sa.cr/wp/wp-content/uploads/2023/02/Protocolo-de-Atencion-Clinica-integral-al-embarazo-parto-y-postparto-2.pdf

Regarding the results of this project, it was found that a proportion of pregnant women had previous pregnancies (26.8% of cases). Of this percentage, 17.9% of adolescents were in their third pregnancy, a situation that occurs with a higher proportion in the urban community. This situation demonstrates a short underproductive interval not by the WHO recommendation, putting maternal and child health at risk. This situation continues in Costa Rica, since in 2021 12.5% of births to adolescent mothers correspond to young people who already had another child (UNFPA. Information brochure on births in girls and adolescents based on the Statistical Information System on Sociodemographic Characteristics of Births in Costa Rica, 2000-2021, focusing on girls and adolescents and based on INEC vital statistics. [Internet]. Costa Rica: UNFPA; 2022. [accessed December 4, 2023]. Available at: https://costarica.unfpa.org/sites/default/files/pub-pdf/folleto_2022.pdf).

Having a second or third pregnancy at such a young age brings very significant consequences at a social and educational level to the adolescent mother and becomes a serious public health problem. The United Nations Population Fund points out that when an adolescent becomes a mother, she experiences both short-term and long-term consequences. In the short term, their rights to health and education, as well as their sexual and reproductive rights, are violated. This leads to their education and development being compromised, so their future well-being may be at risk by not having access to a decent economic income that provides them with economic stability. There is a high probability that they will be trapped in the cycle of poverty and exclusion, in turn limiting the opportunities that their children may have (UNFPA. Socioeconomic consequences of adolescent pregnancy in six Latin American countries. Implementation of the Milena Methodology in Argentina, Colombia, Ecuador, Guatemala, Mexico and Paraguay. [Internet]. UNFPA; 2020. [accessed December 4, 2023]. Available at: https://lac.unfpa.org/sites/default/files/pub-pdf/unfpa_consecuencias_en_6_paises_espanol_1.pdf).

In conclusion, this study offers an approximation to the sociodemographic and obstetric aspects of a group of pregnant adolescents who attended prenatal care at the EBAIS in rural and urban communities in Costa Rica. These young women are characterized by being mostly single, have not completed their secondary studies and are dedicated to household activities. A small group of adolescents who had already experienced motherhood despite their young age was identified, which implies a short underproductive space with the risk of maternal and infant complications. It is important to note that, although all pregnant adolescents had prenatal control, some started from an early stage, which favors health care and the identification of situations that this group of women could face.

Finally, the results of this study demonstrate the need to continue conducting research with this population group, aimed at exploring the reason that leads to the late initiation of prenatal care, the assessment of nutritional status during pregnancy, as well as exploring the institutional response to the health and social care needs of future adolescent mothers.

References

1. Loredo-Abdalá A, Vargas-Campuzano E., Casas-Muñoz A., González-Corona J., Gutiérrez-Leyva CJ. Embarazo adolescente: sus causas y repercusiones en la diada. Rev Med Inst Mex Seguro Soc. 2017; 55:223-229.

2. Martínez E., Montero G., Zambrano RM. El embarazo adolescente como un problema de salud pública en Latinoamérica. Revista Espacios. 2020;41(47):1-10. DOI: 10.48082/espacios-a20v41n47p01

3. Flores-Valencia ME., Nava-Chapa G., Arenas-Monreal L. Embarazo en la adolescencia en una región de México: un problema de Salud Pública. Rev. Salud pública. 2017; 19: 374-378. DOI: 10.15446/rsap.v19n3.43903

4. Área Censos y Encuestas. Instituto Nacional de Estadística y Censos. Encuesta de Hogares de Propósitos Múltiples julio 2009. San José: INEC, 2009.

5. Poo A., Baeza B., Capel P., Llano M., Tuma D., Zúñiga D. Factores que favorecen la generación del embarazo en la adolescencia desde la perspectiva de adolescentes primigestas en control prenatal. Rev Sogia. 2005;12: 17-24.

6. Ahorlu CK., Pfeiffer C., Obrist B. Socio-cultural and economic factors influencing adolescents' resilience against the threat of teenage pregnancy: a cross-sectional survey in Accra, Ghana. Reprod Health. 2015;12. DOI: 10.1186/s12978-015-0113-9

7. Niño B, Ortiz SP., Solano S., Amaya CM., Serrano L. Concepciones del embarazo en adolescentes gestantes de la ciudad de Bucaramanga. Rev Cuid. 2017;8: 1875-1886. DOI: 10.15649/cuidarte.v8i3.448

8. Villalobos-Hernández A., Campero L., Suárez-López L., Atienzo EE., Estrada F., de la Vara-Salazar D. Embarazo adolescente y rezago educativo: análisis de una encuesta nacional en México. *Salud pública de Mex*. 2015; 57: 135-143.

9. Mendoza Tascón LA., Claros Benítez DI., Peñaranda Ospina CB. Actividad sexual temprana y embarazo en la adolescencia: estado del arte. Rev. chil. obstet ginecol. 2016;81: 243-253. DOI: 10.4067/S0717-75262016000300012

10. Vikram K, Vanneman R. Maternal education and the multidimensionality of child health outcomes in India. J Biosoc Sci. 2020;52:57-77. DOI: 10.1017/S0021932019000245

11. Ruiz AMB., García MY. Factores asociados a la no adherencia del control prenatal en gestantes. Revista Arbitrada Interdisciplinaria de Ciencias de la Salud. Salud y Vida.2020; 4: 74-96. DOI: 10.35381/s.v.v4i7.646

12. Castillo Ávila IY., Fortich Acuña LM., Padilla Yánez J., Monroy Gascón MA., Morales Pérez Y., Ahumada Tejera AM. Factores asociados al uso adecuado del control prenatal en 13 municipios de Bolívar*, Colombia*. Rev Cubana Enfermer. 2017; 33: 62-71.

13. Zavala-García A., Ortiz-Reyes H., Salomon-Kuri J, Padilla-Amigo C, Preciado Ruiz R. "Periodo intergenésico: Revisión de la literatura". Rev. chil. obstet. ginecol. 2018; 83:52-61. DOI: 10.4067/s0717-75262018000100052

14. Wilcamango S., Pinto N., Flores Lovon K., Ticona D., Gutiérrez EL. Características clínico-epidemiológicas de adolescentes multíparas atendidas en el Instituto Nacional Materno Perinatal de Lima, Perú. Rev. cient. cienc. salud. 2023; 5:e5119. DOI: 10.53732/rccsalud/2023.e5119

15. Mendoza Tascón LA., Arias Guatibonza MD., Peñaranda Ospina CB.; Mendoza Tascón LI., Manzano Penagos S., Varela Bahena AM. Influencia de la adolescencia y su entorno en la adherencia al control prenatal e impacto sobre la prematuridad, bajo peso al nacer y mortalidad neonatal. Rev. chil. obstet. ginecol. 2015;80:306-315. DOI: http://dx.doi.org/10.4067/S0717-75262015000400005

16. Cruz Naranjo MC., Lastra Lamby NI., Expósito Concepción MY. Estados afectivos de adolescentes gestantes al asistir al control prenatal en una institución de primer nivel de atención. Rev Cubana Med Gen Integr. 2022;38: e1579.