

Causes, Consequences and Social Impact of Early Pregnancy in Patients Attended in the Hospital University Erasmo Meoz Cúcuta in the Department of North from Santander, Colombia, Period 2017-2023

Claudia Ramírez ^{1*}, Claudia Velaides ¹, Gabriela Neira ¹, Mariel D' Jesús Núñez ¹, José Vicente Sánchez-Frank ²

¹Medicine Program, Faculty of Medical and Health Sciences, University of Santander Campus Cúcuta, Norte de Santander – Colombia.

²Master in Applied Statistics, PhD in Education, Research Professor, University of Santander – Cúcuta Campus.

***Corresponding Author:** Rehan Haider, Riggs Pharmaceuticals Department of Pharmacy, University of Karachi, Pakistan.

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Abstract

Introduction: Adolescent pregnancy is one that occurs before optimal biological and socioeconomic maturity. It is influenced by multiple factors such as social inequality. In 2021, there was a global decline in teen births. In Colombia, it decreased in 2022 and finally maintained a constant rise from 2022 to 2023. Objective: Determine the causes, consequences and social impact of early pregnancy in patients treated at the Erasmo Meoz University Hospital, Cúcuta, in the Department of Norte de Santander, Colombia, Period 2017-2023. Methodology: A descriptive, observational, retrospective, cross-sectional study was carried out with a hypothetical-deductive method; using descriptive statistics. 10,780 cases were obtained and for validation.

Results: The group of adolescents over 14 years of age represent 96.67% and the minors 3.33%, 65.95% are Venezuelan adolescents, the newborns 9.91% and 4.66 were underweight and short height, respectively. 68.01% have insufficient prenatal controls. The prevalence of teenage pregnancy under or equal to 14 years of age has increased since 2020.

Conclusion: Between 2017 and 2023, the increase in teenage pregnancy in Cúcuta was influenced by the Venezuelan migration crisis. Most have insufficient prenatal care, but most do not require a cesarean section.

Keywords: pregnancy; adolescence; birth; migrant

1. Introduction

The pregnancy teenager either early HE categorizes as a event of health public due to biological immaturity and socioeconomic, and is influenced by factors as inequality social, lack of opportunities, inequality of gender and lack of knowledge about health sexual (Rojas, 2021) . According to the WHO, worldwide a approximate amount of sixteen million of teenagers between the ages of 15 and 19 Women become mothers at an age. Latin America and The Caribbean corresponds to second place of pregnancy teenager, HE they calculate around of 66.5 births for each thousand youths of 15 to 19 years (Zegers-Hochschild et al., 2020) .

Meanwhile, in Norte de Santander, department of Colombia, the minors Those aged 10 to 14 showed an increase in the rate specific of fertility by age (TEFE) of 23 and the teenagers of 15 19 presented 58.9 by each 1000 live

births, this in turn decreases drastically improve quality and comfort in the lives of pregnant mothers (PAHO, 2020) .

By Pregnancy alone already constitutes a high obstetric risk from the moment of conception, especially for teenage girls, now that so much the mother as he fetus HE they expose to multiple complications throughout the entire development of the pregnancy and of the delivery. The complications and he risk that are may have they depend of different factors, such as the age of the pregnant, the stage gestational, the characteristics organic so much of the mother as well as her son , (Calderon et al., 2020) . In the study by Patricia Ortiz, Beatriz Niño, Sonia Aguila, Patricia Ribeiro they analyzed to students that They were pregnant in different institutions educational of character public in Bucaramanga, capital of Santander, in where HE

registered 48 teenagers pregnant women and around 2014 and until in the first half of 2015, they maintained their studies in 22 centers of education public of Bucaramanga (Ortiz, Rodriguez, 2018) .

The objective of this work was to determine the causes, consequences and impact social of the pregnancy early in patients attended in he Hospital University Erasmus Meoz of Cúcuta, in he Department of North of Santander, Colombia, during the years 2017-2023, analyzing he context social of the pregnancy teenager in the population that HE wishes study for grasp the factors that determine its prevalence. The aim is to identify the complications immediate to the delivery that present the children of are teenagers, the amount of controls done for measure the conditions of prenatal care, and the proportion of births vaginal and the facts to through of Caesarean section. In he the following are sought in the hypothesis formulation: the damages caused by he pregnancy early Yeah are mostly physical as correspond to preeclampsia, delivery premature either macrosomia, in comparison with the consequences psychological; as the high percentage of girls or adolescents who experience early pregnancy and fall in desertion school.

2. Materials and Method

In this study HE employment the Model Positivist with an empiricist-intuitive approach or quantitative research. Descriptive, observational, and cross-sectional research.

Inclusion and exclusion criteria were established beforehand. Inclusion criteria were: women between 10 and 19 years of age who were pregnant or already mothers; adolescent mothers with comorbidities; mothers who received prenatal care, delivery, and/or cesarean section at the Erasmo Meoz University Hospital; women who experienced pregnancy, delivery, and/or cesarean section between 2017 and 2023; and women from any of the municipalities of Norte de Santander, Colombia. Exclusion criteria were: women who died from causes unrelated to early pregnancy; women who had moved to another department; and women with cognitive impairments that prevented them from independently completing the instrument. The variables studied were: race, age, body mass index, level of education, socioeconomic status, nationality, municipality of origin, and maternal and neonatal outcomes. These variables were measured using nominal and ratio scales, respectively, and the data were obtained from a review of medical records.

The study population consisted of women aged 10-19 years who gave birth between 2017 and 2023 at the Erasmo Meoz University Hospital in the Department of Norte de Santander, Colombia. Data were obtained from the hospital's database, which contained 10,780 births filtered by the specified age from 2017 to 2023. A non-replacement sampling method was used, employing a random or probabilistic sampling technique with stratified proportional allocation. The year was used as the stratification variable, with confidence levels greater than 90% and predetermined sampling errors less

than 5%. Measures of correlation, such as odds ratios, were calculated. In addition to the collection of The data or information used as a source was the Departmental Institute Health (IDS) of Norte de Santander in lapse of 2017-2023, and revision of stories clinics of the Hospital University Erasmus Meoz to through of the harvest of Information for the investigations. As a collection technique: description, surveys, review of bibliographic information (with other sources such as Scielo, Pubmed databases) and health and safety records.

3. Results

Through the review of medical records practiced to patients of the Hospital Erasmo Meoz acquired information that was analyzed. After obtaining the This data led to the development of tables and graphs to show the results obtained from the information previously provided, in which include data necessary for answer the objectives and the question of research. Regarding Non-categorical data are taken into account statisticians descriptive of elderly relevance for its characterization.

Of equal manner HE performed a analysis inferential with conclusions statistics about of the parameters population - based results they obtained through the information sample. For get this HE they built intervals of trust for the parameters important.

In the period of 2017- In 20023, 10,421 births were registered in women over 14 years of age, while the remaining 359 were in women under 14. for a sample total of 1780 patients treated at Erasmo Hospital Meoz, . Graph 2 shows the incidence of teenage pregnancy in the youngest age group, with a prevalence that has been increasing since 2019 and peaked in 2023 and an incidence that reached its highest point in 2021.

The mean age was approximately 17.41 years, with a coefficient of variation (CV) of 8.22%, indicating high homogeneity in age. The minimum and maximum ages were 11 and 19 years, respectively. 65.95% of the mothers with early pregnancy were Venezuelan. The chi-square test of independence and odds ratios were applied to verify the existence of a relationship between the two conditions.

Regarding marital status, although 78.50% reported having a partner at the time of delivery, there were 1,461 records with no information in this area. Mothers over 14 years of age were 2.63 times more likely to be living with a partner; Colombian mothers were more likely to be living without a partner, as were mothers residing in urban areas. Regarding the educational level attained by the adolescents, 1,490 records lacked information. It was found that 70.03% had reached a maximum educational level of secondary school.

In how much to the complications that they were able introduce For the children of these women at birth, data indicative of prematurity and low birth weight or length were considered. The majority of newborns (89.35%) were born at term, and only 10.63% were preterm. Most of the neonates had appropriate weight and length for gestational age (Table 1).

Category	Patients	%
Short stature	502	4.66
Regular size	9576	88.83
High size	702	6.51
Total	10780	100

Table 1: Newborn size categories.

Although 32% of the adolescents had five or more prenatal visits, which is considered adequate, the vast majority (68%) did not have adequate prenatal care, notably 14.71% who had no visits at all. Despite this, vaginal deliveries predominated over cesarean sections, suggesting that the vast majority of the

adolescents did not have indications for a cesarean section (Table 2). Patients over 14 years of age and those residing in urban areas had the highest likelihood of having a vaginal delivery, with odds ratios of 1.52 and 1.30, respectively.

Variables	Cesarean delivery			Vaginal delivery			P
	LI	OR	LS	LI	OR	LS	
Older than 14 years	0.53	0.66	0.82	1.22	1.52	1.89	0.0001 **
Urban area	0.68	0.77	0.88	1.14	1.30	1.47	0.0001 **

Table 2: Relationship between type of delivery and age group and area of residence . Odds Ratio estimation with a 95% confidence interval.

LI: Lower confidence limit. LS: Upper confidence limit. OR: Odds Ratio. P: Significance level (ns, 10%, *5% or **1%).

Source: Own elaboration.

4. Discussion

The results demonstrate that the majority of cases (96.67%), correspond to teenagers older of 14 years, with the average age being 17 years and 5 months. The most of are teenagers were of nationality Venezuelan, residents in urban areas and they said with a partner.

In 2022, a study revealed that 2199 teenagers Venezuelans registered in Sisbén IV, with ages between 10 and 19 years, were pregnant women. This report underlined the prevalence of adolescent mothers with low level of education, especially among the that reside in Venezuela (National Administrative Department of Statistics (DANE), 2021) . The data of the HUEM reflect a pattern Similarly, 65.95% of mothers The teenagers who received care were Venezuelan. with a light most residing in Colombia, although many still lived in Venezuela. In how much to schooling, of the records verifiable, he 78.03% there was reached to the less the education secondary.

In how much to the place of residence, the majority of the adolescents treated in he HUEM they lived in zones urban (83.63%). However, DANE had observed a increase of births in teenagers of less of 15 years in rural areas, reaching the80.4% nationwide. Regarding the state civil, the most of the teenagers they had couple to the moment of the delivery, although there was a light most of Venezuelans single in comparison with the Colombians (National Administrative Department of Statistics, 2022)

The teenagers minors of 14 years presented minors probabilities of have couple, it that suggests that their pregnancies could be related to relations No agreed either without Protection. A study from the University CES in Medellín reinforces this idea to the find a correlation of the abuse sexual with teenage pregnancy (Restrepo Martinez & Trujillo Numa, 2016) , although in this investigation No HE account with sufficient information to establish a connection direct.

A elderly proportion of the infants children of mothers teenagers of this The study was completed (89.35%) and with weight and size suitable (88.58% and 88.83%). Without embargo, he 68.01% of the mothers I perform less of five queries prenatal (Tuñon et al., 2023) . These results contrast with studies of countries like Argentina and Peru, where evidence that the mothers teenagers whose controls prenatal were insufficient, have a important relationship with he low weight to the be born that they arrived to present their children (Norabuena Huerta, 2024) .

Limitations of this study include its retrospective nature, which limits the availability of required data and increases selection bias. Furthermore, the study was limited to a population from only one public hospital, preventing local comparisons with other healthcare facilities, including private centers. Additionally, the study was cross-sectional, lacking follow-up to ensure continuity of care for each case. Future prospective, longitudinal studies with a broader scope, encompassing both public and private sectors, are recommended.

5. Conclusions

Between 2017 and 2023, in Cúcuta, the increase of the pregnancy teenager was influenced by the situation border with Venezuela and the migration

crisis, since the 65.95% of the cases involved to Venezuelan teenagers, many of them which travel from Venezuela for give to the light in Colombia. The most of are youths No receive the amount appropriate of controls prenatal, well only he 32% has to the less 5 queries, and a 14.71% No She receives no prenatal care. Despite Due to the lack of prenatal care, almost all the newly born are product of full-term pregnancies, which count for both with appropriate weight and size for the age gestational, by it so much, HE interpre that he pregnancy teenager in this population is not associated with problems low birth weight or size. Regarding There are more types of childbirth. of births vaginal (66.29%) that of cesarean sections (33.71%).

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