



Sociodemographic and gestational characteristics of adolescent mothers

Características sociodemográficas e gestacionais de mães adolescentes

Características sociodemográficas y gestacionales de las madres adolescentes

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ABSTRACT

Introduction: The teenage pregnancy has been considered a worldwide health problem for more than four decades due to the biological, psychological, economical, educational and familial consequences. The study aims to analyze the epidemiological profile of teenage pregnancy in a northeastern Brazilian capital. **Outline:** It is a descriptive, retrospective study, with quantitative approach, performed with secondary data from Department of Informatics of SUS (DATASUS), in the years from 2013 to 2017. **Results:** A higher record of pregnancy among the teenagers was observed in the age range of 15 to 19 years, with 8 to 11 years of schooling and married. There was a reduction in the number of pregnancies, but with fluctuations between 2013 and 2014. The obstetric-gestational profile revealed that most of the teenagers had attended seven or more prenatal care appointments, had single pregnancy and vaginal delivery. Most of the newborns had adequate weight at birth and low frequency of prematurity, asphyxia at birth (Apgar at 1st and 5th minute between 8 and 10) and of congenital anomalies. **Implications:** The study enabled the gestational situation of the teenagers to be recognized, contributing to the health care strategies, prevention of teenage pregnancy and mother-baby adequate assistance.

DESCRIPTORS

Pregnancy; Adolescent; Live Birth; Health Profile.

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INTRODUCTION

The adolescence is the transition stage between childhood and adulthood, which is comprehended by World Health Organization (WHO) as the one between 10 and 19 years of age.¹ In Brazil, research point out that over the 2.9 million of births occurred in 2008, it is estimated that 20% of them happens to mothers in the 15 to 19 years age range. On the Other hand, the mothers in the 10 to 14 years age range correspond to 1% of these births.²

The teenage pregnancy has been considered a worldwide health problem for more than four decades due to the biological, psychological, economical, educational and familial consequences, reverberating in socioeconomic and health indexes of a country. It even corresponds to one of the factors of not reaching Millennium Development Goal 5, whose goal was to reduce by 70% worldwide maternal mortality. With this, such goal stay, now, as sustainable development objective and worldwide health authorities reinforce the need of enhancement of health care practices for this population.³

The female teenagers represent a group of high risk in reproductive terms, due to the double charge of reproduction and growing. One pregnancy may have immediate and long standing consequences for the health, may altering the course of his all life, besides of meaning higher risks of complications and maternal death.⁴

The main obstetric complications as outcomes of teenage pregnancy are cephalopelvic disproportion, urinary tract infection, preterm birth, intrauterine growth restriction, newborns small for gestational age, premature amniorrhexis, anemia and preeclampsia. Moreover, the number of low-weighted newborns at the birth is doubled in the group of teenage mothers and neonatal mortality is approximately twice as much in puerperal women between 15 and 19 years and five times bigger in teenagers under 15 years.⁵

Furthermore, the repercussion of premature motherhood are school dropout, loss of most of the youth, anticipated labor market entrance, the familial disintegration, and, in development countries, just how Brazil is, the social problems like abandonment of children.⁶ Before pregnancy impact in teenagers' lives, it is necessary to know the sociodemographic and gestational profile of the teenage mothers aiming to contribute in the development of actions on health which seek to minimize the cases of teenage pregnancy and that cooperates in the improvement of the outcomes, considering that teenage pregnancy can lead to maternal and neonatal death.

In this sense, this study shows as question of the study "what is the sociodemographic and gestational profile of teenage mothers, residing in Teresina-PI, in the years from 2013 to 2017?" and has as objective to analyze the sociodemographic and gestational profile of teenage mothers, residing in Teresina-PI, in the years from 2013 to 2017.

METHOD

It is a descriptive, retrospective, with quantitative approach study, performed with secondary data from Department of Informatics of SUS (DATASUS), referent to the years from 2013 to 2017.

The study population was composed by all born alive (n=10,670), in the period between 2013 and 2017, sons of teenage women, that is, the ones in the 10 to 19 years age range, in accordance with WHO, residing in the city of Teresina-PI. This is the capital city of the State of Piauí, it is situated in Brazil's Northeast region. In 2010 census, the municipality had a population of 814,230 inhabitants, of which 145,167 were teenagers. Its Municipal Human Development Index (MHDI), in 2010, was assessed at 0.751.

The data collect occurred in February 2020 and happened in the following way: first, the DATASUS web page was accessed and, secondly, the tab “Information on Health (TABNET)” was accessed. After that, the topic “Vital Statistics” had been chosen, then, the option “Born Alive - 1994 to 2017” was choose and, right after, “Born Alive”, selecting the state to be consulted. Next, with the use of the tool TABNET, there were performed the available and pertinent selections so the needed data for developing this study were collected.

The investigated variables were the following: maternal age range; maternal school attainment; maternal marital status; amount of prenatal care appointments; pregnancy kind and duration; delivery/birth year; type of delivery; child’s sex, color/race; Apgar at first and fifth minutes; weight at the birth; and congenital anomaly.

In relation to the data analysis, it has been highlighted that data were exported through the tool TABNET, without need of data collect instrument, and grouped in Microsoft Excel™, software on which descriptive statistics analysis was performed

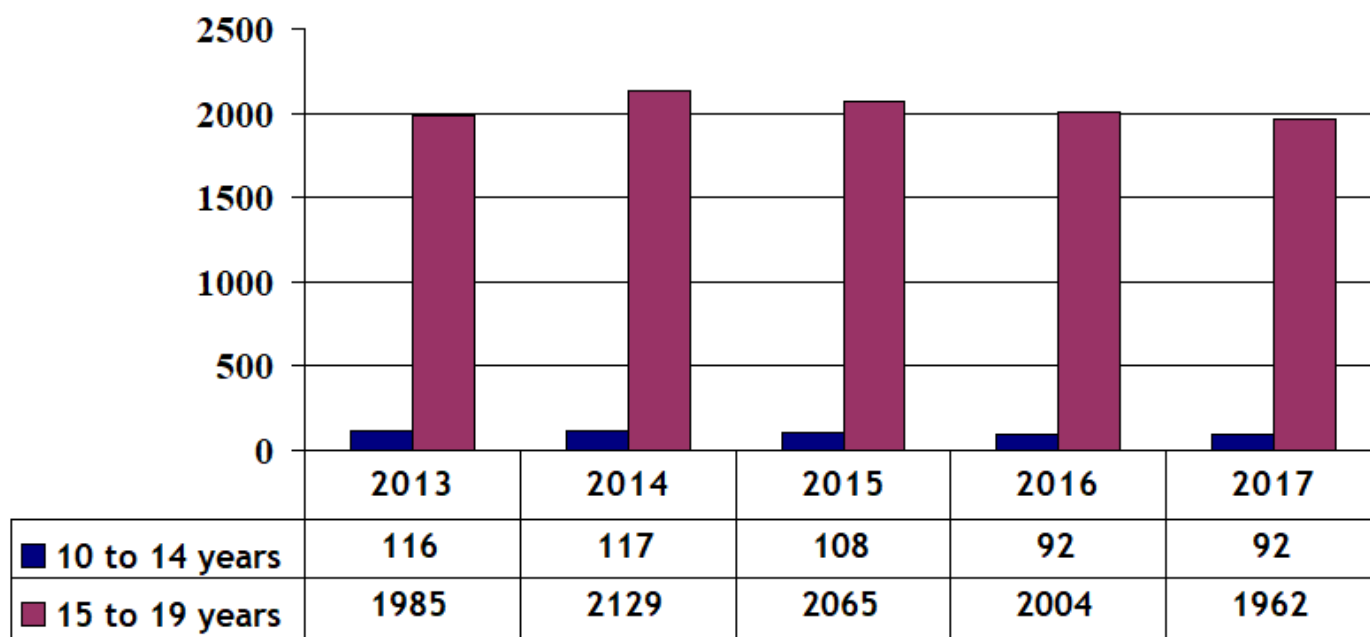
(absolute and relative frequencies). The results were show under the format of graphics and tables.

This study uses secondary data from DATASUS, which are of public domain and can be accessed in a free and online way. Furthermore, the information is aggregated and do not identifies the individuals. For this reason, it is highlighted that this study needed no approval from the Research Ethics Committee, as the Resolution no. 510, April 7, 2016, of the National Health Council of the Ministry of Health states. However, it is warned that Resolution no. 466 of 2012, of the National Health Council of the Ministry of Health, was respected.

RESULTS

In the Graph 1 it is verified that there was reduction in the cases of births of teenage mothers, over the analyzed period, in both investigated age ranges. Although, it can be observed that, in the 15 to 19 years age range, occurred fluctuations between 2013 and 2014.

Graph 1 – Number of cases of birth, of teenage mothers, per year.



In Table 1, it is observed that teenage mothers in the 10 to 14 years age range have school attainment inferior to the ones in the other age range. As to the marital status, most of the teenagers

was either married or living consensual relationship, however, it becomes important to highlight that the teenagers with age between 10 and 14 years, mostly, did not have partner.

Table 1 – Sociodemographic profile of the teenage mothers, as to the age range, in the city of Teresina-PI, in the period from 2013 to 2017. Teresina, Piauí, Brazil, 2020. (n=10,670)

Variables	10 to 14 years		15 to 19 years		Total	
	n	%	n	%	n	%
Maternal school attainment						
None	-	-	8	0.1	8	0.1
1 to 3 years	22	4.2	222	2.2	244	2.3
4 to 7 years	339	64.6	2,818	27.8	3,157	29.6
8 to 11 years	155	29.5	6,616	65.2	6,771	63.4
12 and beyond	2	0.4	307	3.0	309	2.9
Ignored	7	1.3	174	1.7	181	1.7
Maternal marital status						
Single/Divorced/Widow	294	56.0	3,458	34.1	3,752	35.2
Married/Consensual union	219	41.7	6,494	64.0	6,713	62.9
Ignored	12	2.3	193	1.9	205	1.9

Source: Department of Informatics of SUS (DATASUS), 2020.

The Table 2 demonstrates the obstetric-gestational profile of teenage mothers from the city of Teresina-PI. Concerning the number of prenatal care appointments, when comparing the two age ranges, it is verified that a bigger number of

adolescents with ages between 15 and 19 years went to seven or more attendances. Besides that, it is noted predominance of single pregnancy, full term and vaginal deliveries in both age ranges (Table 2).

Table 2 – Obstetric-gestational profile of the teenage mothers, as to the age range, in the city of Teresina-PI, 2013-2017. Teresina, Piauí, Brazil, 2020. (n=10,670)

Variables	10 to 14 years		15 to 19 years		Total	
	n	%	n	%	n	%
Prenatal care appointments						
None	29	5.5	634	6.3	663	6.2
1 to 3	88	16.8	1,230	12.1	1,318	12.4
4 to 6	216	41.2	3,714	36.6	3,930	36.8
7 or more	186	35.4	4,311	42.5	4,497	42.1
Ignored	6	1.1	256	2.5	262	2.5
Kind of pregnancy						
Single	520	99.0	9,966	98.2	10,486	98.3
Double or more	2	0.4	119	1.2	121	1.1
Ignored	3	0.6	60	0.6	63	0.6
Pregnancy duration						
< 37 weeks	103	19.6	1,333	13.1	1,436	13.5
≥ 37 weeks	403	76.8	8,472	83.5	8,875	83.2
Ignored	19	3.6	340	3.4	359	3.3
Kind of delivery						
Vaginal	304	57.9	5,850	57.7	6,154	57.7
C-section	221	42.1	4,271	42.1	4,492	42.1
Ignored	-	-	24	0.2	24	0.2

Source: Department of Informatics of SUS (DATASUS), 2020.

The Table 3 presents the characteristics of the newborns of teenage mothers in the city of Teresina-PI. It is observed that, in both age ranges analyzed, there was predominance of male newborns,

of the brown race, with Apgar at the first minute and at the fifth minute between 8 and 10, with usual weight and that did not have congenital anomalies (Table 3).

Table 3 – Profile of the newborns of teenage mothers, as the age range, of the city of Teresina-PI, 2013-2017. Teresina, Piauí, Brazil, 2020. (n=10,670)

Variables	10 to 14 years		15 to 19 years		Total	
	n	%	n	%	n	%
Child's sex						
Male	275	52.4	5,264	51.9	5,539	51.9
Female	250	47.6	4,878	48.0	5,128	48.0
Ignored	-	-	3	0.1	3	0.1
Color/Race						
Brow	408	77.7	7,775	76.7	8,183	76.7
White	29	5.5	822	8.1	851	8.0
Black	26	5.0	510	5.0	536	5.0
Other	5	0.9	92	0.9	97	0.9
Ignored	57	10.9	946	9.3	1,003	9.4
Apgar 1st minute						
0 to 2	5	1.0	92	0.9	97	0.9
3 to 5	18	3.4	301	3.0	319	3.0
6 to 7	42	8.0	662	6.5	704	6.6
8 to 10	457	87.0	9,000	88.7	9,457	88.6
Ignored	3	0.6	90	0.9	93	0.9
Apgar 5th minute						
0 to 2	6	1.1	40	0.4	46	0.4
3 to 5	1	0.2	35	0.3	36	0.3
6 to 7	9	1.7	143	1.4	152	1.4
8 to 10	506	96.4	9,837	97.0	10,343	97.0
Ignored	3	0.6	90	0.9	93	0.9
Birth weight						
< 2,500g	64	12.2	980	9.7	1,044	9.8
2,500 3,999g	446	84.9	8,840	87.1	9,286	87.0
≥ 4,000g	15	2.9	325	3.2	340	3.2
Congenital anomalies						
Yes	7	1.3	76	0.8	83	0.8
No	508	96.8	9,874	97.3	10,382	97.3
Ignored	10	1.9	195	1.9	205	1.9

Source: Department of Informatics of SUS (DATASUS), 2020.

DISCUSSION

In Brazil, the rate of teenage pregnancy is considered high when compared to both Latin-American and worldwide average values.⁷ In this study, it was observed reduction of those rates in both age ranges under analysis. Corroborating with this study, one countrywide research, mentions reduction in the number of cases, from 80.9 per thousand adolescents to 68,4 per thousand adolescents, referring to the Years 2000 and 2015, respectively.⁷

Although there has been technological breakthroughs and the creation of efficient methods in the prevention of pregnancy, the rates still elevated. The development of actions, aiming to prevent teenage pregnancy, are considered fundamental, since the unintended pregnancy is constantly associated to the misinformation of the teenager.⁸ In a study carried out in Teresina, the incognizance of how use the morning-after pill augmented by 3.93 the chances of having an unintended pregnancy.⁹

In this study, the low education level predominated among the cases of teenage pregnancy, in view of that few adolescents had finished high school. An investigation which displays this same aspect in its results, it clarifies that the elevated number of years in school is responsible for guiding the female teenagers as to the control of the precocious reproduction.¹⁰ Contributing for this problem, it is observed that themes like sexuality and reproductive health, when in school environment, displays a non-transversal conduction, disobeying the national curricular plan.¹¹

Teenage pregnancy is often related to the low socioeconomic levels, at the same time that is known as a perpetuator of poverty.¹² For teenager's family, the precocious marriage can be seen as the solution to reduce home-expenses, and, on the other hand, can be seen as a solution for changing teenager's life.⁹ In view of this, low socioeconomic status presents itself as a cause and consequence of early marriage.^{9,13}

In this study, most of teenagers with age between 10 and 14 years attended between 4 and 6 prenatal care appointments. Before the different aspects that relate to teenage pregnancy, the cares orientated to this group can have the beginning compromised. In investigations carried out in Brazil, it was mentioned that the pregnant teenagers start prenatal care lately and show a fewer number of appointments when compared with pregnancies in other age ranges.¹⁴⁻¹⁵ Moreover, the orientations delivered for the pregnant and coverage for the exams recommended by the Health Ministry (HM) are identified as unsatisfactory. This inadequate accompaniment can be seen as compromising, once that during the prenatal care appointments it performed the gestation monitoring, and, thus, possible risks can be identified.¹⁶

In contrast, it was observed, in this research, a higher number of adolescents with age between 15 and 19 years who went for seven or more prenatal

care appointments. According to the HM recommendations, the minimum number of prenatal care consultations is six. Thus, despite the characteristic adversities of the pregnancy in this group, it is verified that the findings referring to the prenatal care appointment, among the teenagers in the 15 to 19 years age range, are in accordance with HM recommendations.¹⁷

In this context, the Strategy of Health of Family also exerts indispensable function in the implementation of education and control measures in favor of reduction of teenage pregnancy.¹⁸ In a study carried out in Paraguay, it was found that with the implementation of services based on Primary Health Care (PHC), in 2009, and the creation of family health units, there was a 14.9% reduction in teenage pregnancy.¹⁹

The teenage pregnancy is seen as an health problem, once it exposes the maternal figure to risks, at same time it can determine neonatal complications.²⁰ In this scenario, prematurity and the low birth weight are constantly mentioned as common findings, resultant of the pregnancy in this age range, as well as being associated to the maternal biological immaturity.²⁰⁻²¹ However, this characteristic risks of teenage pregnancy are reduced, most of the times, by the qualified assistance during the prenatal care.^{20,22}

In this perspective, it was also identified the full-term birth and vaginal delivery among the teenagers of this study. These results corroborate with the ones observed in study carried out in Brazilian Southeast.²³ Beyond that, in both analyzed age ranges, it is observed, in most of the cases, Apgar between 8 and 10, normal weight newborns and that the congenital anomalies were practically absent. The predominance of this conditions considered as normal and waited in all gestations, are highlighted as resultants of the adequate health care during pregnancy.²⁰

In general, even though adolescent pregnancy rates are falling and prenatal care follows the guidelines of the Ministry of Health, the levels are still considered high. In this context, teenage pregnancy for being, to a large extent, concentrated in low socioeconomic levels and reduced number of years of study, presents itself as a subject that deserves a differentiated attention by public health and education policies.

The limitations are related to the fact that this study uses secondary data, which, in turn, is filled in by third parties, which compromises control over the data, as can be seen by the number of variables with ignored responses.

CONCLUSION

This study enabled to describe the sociodemographic and gestational profile of the teenage mothers in a capital city of Brazilian Northeast. It is verified that, although with fluctuations, the analyzed age ranges show reduction in the number of births among teenage mothers. Besides that, most of the teenagers had low educational level and lived with a partner. Newborns'

profile differs to the ones found in literature, considering that prematurity, asphyxia and low birth weight presented low frequencies. However, since it is a survey with data referring only to the capital of Piauí, it is difficult to generalize regarding the theme worked on.

It is highlighted the importance of enhancing the health assistance for the adolescent in the PHC, in order to prevent teenage pregnancy, as well as to track these cases in a more active way, above all among the female teenagers in the 10 to 14 years age range, therefore, which presented lesser amount of prenatal care consultations. It becomes imperative, thus, to qualify the care of the PHC professionals in order to promote a more in-depth look at teenagers. Such assistance must seek the development of actions of education on health for the teenage public, aiming to enhance their knowledge about the contraceptive methods, as well as to enhance the tracking of the teenage pregnancy and the provided care, considering that it will enable the reduction of cases e, mainly, the unfavorable outcomes in the maternal-infantile health.

RESUMO

Introdução: A gravidez na adolescência é considerada um problema mundial de saúde pública há mais de quatro décadas devido às consequências biológicas, psicológicas, econômicas, educacionais e familiares. O estudo objetiva analisar o perfil epidemiológico da gravidez na adolescência em uma capital do nordeste brasileiro. **Delineamento:** Trata-se de um estudo de análise descritiva, retrospectivo, com abordagem quantitativa, realizado com dados secundários do Departamento de Informática do Sistema Único de Saúde (DATASUS), nos anos de 2013 a 2017. **Resultados:** Observou-se maior registro de gravidez entre adolescentes na faixa etária de 15 a 19 anos, com 8 a 11 anos de estudo e casadas. Houve redução no número de gestações, mas com flutuações em 2013 e 2014. O perfil obstétrico-gestacional revelou que a maioria das adolescentes tinha realizado sete ou mais consultas pré-natal, apresentou gravidez do tipo única e parto vaginal. A maioria dos recém-nascidos apresentou peso adequado ao nascer e baixa frequência de prematuridade, asfixia ao nascer (Apgar no 1º e 5º minuto entre 8 e 10) e de anomalias congênitas. **Implicações:** O estudo permitiu reconhecer a situação gestacional das adolescentes, contribuindo para as estratégias de saúde, prevenção da gravidez na adolescência e assistência adequada ao binômio mãe-bebê.

DESCRITORES

Gravidez; Adolescente; Nascimento Vivo; Perfil de Saúde.

RESUMEN

Introducción: El embarazo en la adolescencia ha sido considerado un problema de salud pública mundial durante más de cuatro décadas debido a consecuencias biológicas, psicológicas, económicas, educativas y familiares. El estudio tiene como objetivo analizar el perfil epidemiológico del embarazo adolescente en una capital del noreste de Brasil. **Delineación:** Se trata de un estudio de análisis descriptivo, retrospectivo con enfoque cuantitativo, realizado con datos secundarios del Departamento de Informática del Sistema Único de Salud (DATASUS), en los años 2013 a 2017. **Resultados:** Hubo un mayor registro de embarazo entre las adolescentes de 15 a 19 años, con 8 a 11 años de escolaridad y casadas. Hubo una reducción en el número de embarazos, pero con fluctuaciones en 2013 y 2014. El perfil obstétrico-gestacional reveló que la mayoría de las adolescentes habían asistido a siete o más consultas prenatales, tenían un embarazo de tipo único y parto vaginal. La mayoría de los recién nacidos presentaron un peso adecuado al nacer y una baja frecuencia de prematuridad, asfixia al nacer (Apgar en el 1º y 5º minutos entre 8 y 10) y anomalías congénitas. **Implicaciones:** El estudio permitió el reconocimiento de la situación gestacional

de las adolescentes, contribuyendo a las estrategias de salud, prevención del embarazo adolescente y atención adecuada al binomio madre-hijo.

DESCRIPTORES

Embarazo; Adolescente; Nascimento Vivo; Perfil de Salud.

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AVAILABILITY OF DATA

The data of this study are available on the website of the Department of Informatics of SUS (DATASUS).

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CONFLICTS OF INTEREST

There are no conflicts of interest to declare.