Profile of pregnancy in adolescence and related clinical-obstetric occurrences

Perfil da gravidez na adolescência e ocorrências clínico-obstétricas

Perfil del embarazo en la adolescencia y ocurrencias clínicas y obstétricas

Maria Veraci Oliveira Queiroz¹, Eysler Gonçalves Maia Brasil¹, Caroline Magalhães de Alcântara¹, Maria da Gloria Oliveira Carneiro²

The objective was to characterize the profile of adolescence pregnancy and its clinical and obstetric events. Descriptive, cross-sectional study, with quantitative approach, developed in a tertiary hospital in Fortaleza, CE, Brazil, with one hundred adolescent mothers, through interviews and registers from the medical records, from February to May, 2011. Data were analyzed by Statistical Package for the Social Science software, version 17.0. The majority lived with a partner who earned up to one minimum wage, had low education and unpaid occupational activity. Most of them also reported early sexual activity, and were primiparas. All of them had complete prenatal care, with an average number of 5.91 consultations. The percentage of uncomplicated births of newborns was 48.9%, being prematurity the most frequent (56.3%). It is necessary to have more encouragement to young mothers attending postnatal consultation and family planning, and to have access and learning contraceptive matters, making prevention to early pregnancy more effective.

Descriptors: Pregnancy in Adolescence; Maternal Behavior; Socioeconomic Factors; Nursing.

O objetivo foi caracterizar o perfil da gravidez na adolescência e as ocorrências clínico-obstétricas. Estudo descritivo, transversal, na abordagem quantitativa, desenvolvido em um hospital terciário de Fortaleza, CE, Brasil, com cem mães adolescentes, por meio de entrevistas e complemento no prontuário, no período de fevereiro a maio de 2011. Os dados foram processados pelo programa Statistical Package for the Social Science, versão 17.0. A maioria morava com o companheiro, recebia até um salário mínimo, apresentava baixa escolaridade e não tinha atividade ocupacional remunerada. A maior parte também relatou atividade sexual precoce e era primigesta. Todas fizeram acompanhamento pré-natal, com média de 5,91 consultas. A porcentagem de partos sem complicações dos recém-nascidos foi de 48,9%, sendo a prematuridade mais frequente (56,3%). Faz-se necessário maior estímulo às jovens mães ao comparecimento às consultas pós-parto e ao planejamento familiar para acesso e aprendizagem dos métodos contraceptivos, tornando-se a prevenção à gravidez precoce mais eficaz.

Descritores: Gravidez na Adolescência; Comportamento Materno; Fatores Socioeconômicos; Enfermagem.

El objetivo fue caracterizar el perfil de embarazos en la adolescencia y las ocurrencias clínicas y obstétricas. Estudio descriptivo, transversal, cuantitativo, desarrollado en hospital terciario de Fortaleza, CE, Brasil, con cien madres adolescentes a través de entrevistas y registro médico, de febrero a mayo de 2011. Los datos se analizaron mediante el programa Statistical Package for the Social Sciences, versión 17.0. La mayoría vivía con el compañero, recibía hasta un salario mínimo, tenía bajo nivel educativo y no tenía actividad profesional remunerada. Gran parte tuvo actividad sexual temprana y era primípara. Todas hicieron atención prenatal con media de 5,91 consultas. El porcentaje de partos sin complicaciones de los recién nacidos fue de 48,9%, siendo la prematuridad más frecuente (56,3%). Se necesita más estímulo para las jóvenes madres en las consultas postnatales y planificación familiar para acceso y aprendizaje de los métodos de anticoncepción, convirtiéndose en prevención de embarazo precoz más eficaz.

Descryptores: Embarazo en Adolescencia; Conducta Materna; Factores Socioeconómicos; Enfermería.

¹Universidade Estadual do Ceará. Fortaleza, CE, Brazil.
²Hospital Geral Dr. César Cals. Fortaleza, CE, Brazil.

Corresponding author: Maria Veraci Oliveira Queiroz
Av. Paranjana 1700, Campus do Itaperi. Universidade Estadual do Ceará – Programa de Pós-graduação Cuidados Clínicos em Enfermagem e Saúde. CEP: 60714-903. Fortaleza, CE, Brazil. E-mail: veracioq@hotmail.com
Introduction

Adolescence is defined in several ways, considering temporal, social, physiological and psychological aspects. Among these aspects, it is the period of life between 12 and 18 years of age\(^1\). In Brazil, current data show that from a total of 191 million inhabitants, 30% of the population is adolescent\(^2\). This percentage is related to the decrease of fertility and to the increasing decline of child mortality and to the increase of life expectancy at birth\(^3\).

Pregnancy in adolescence is a situation of physical social risk, recognized as a problem for the young one who starts a family, having no intention to. It is especially traumatic when it happens in the less favored social economical classes\(^4\). However, the difficulties faced by the adolescent, as well as the knowledge about the changes and particularities, can give the family members and society and to the programs necessary aids for the adoption of more assertive measures in the attention to the pregnant adolescent\(^5\).

The consequences of pregnancy in adolescence tend to be negative when it is observed from a strictly biological perspective or when the social expectations of what a typical development in adolescence are taken as parameters. Doubtless, there are evidences which indicate a series of risks to health related to pregnancy in adolescence, both for the mother as well as for the baby. It is also known that the demands of pregnancy and maternity implies in several transformations in the way of life of the adolescence which limits or jeopardizers their involvement in important activities for their development in this period of life; such as school duties and leisure. From the point of view of public health these occurrences bring negative repercussions once they imply health risks for the mothers and the babies, risks of inadequate care to the babies and risk of impoverishment in the perspectives of schooling, work and income of the adolescents and their families\(^6\).

Every year an average of 16 million girls between 15 and 19 years of age get pregnant which represents approximately 11% of all the babies born in the world. Most of the pregnancies in adolescence are registered in countries under development, whose risk of death due to causes related to pregnancy is much higher in the adolescents\(^7\).

The data from the health department show that in 2007, the deliveries involving adolescents from 15 to 19 years of age represented 23%. Even a decrease in fertility has been registered throughout Brazil, the pregnancy in adolescence is worrying due to their social vulnerability. According to data of the Instituto Brasileiro de Geografia e Estatística/Instituto de Pesquisa Econômica Aplicada (Geography and Statistics Brazilian Institute/Institute of Applied Economic Research) the rate of fertility of the adolescent grew 0.14 in the lower economical classes in 2006\(^8\).

Analyzing the age range of the mothers of the living newborns from 2000 to 2009 in Brazil, it was noticed that the group of adolescents varied from 20% to 23%. In Ceará, this rate is according to the national one from 21% to 23%, observed from 2006 to 2009\(^9\). Facing the indicators, early pregnancy can be considered a problem of public health due to its high prevalence and the disasters consequences to child health.

One of the supporting policies to the pregnant in search of an assistance of quality is the Programa de Humanização no Pré-natal e Nascimento (Program of Humanization in the pre-natal and birth), which consists in a policy of the health department created in 2000 to establish the principles for an assistance of quality, complete and humanized, provided to the pregnant. It is highlighted that the specialized care to the mother-child binomial must continue in the first years of the life of the baby, in order to prevent damage and to promote health. Although it is not a specific policy for the adolescent clientele, it is important to take into consideration that the humanization of the assistance to this population depends on some principles and guidelines which must be preconized,
for example the recognition of adolescents as subjects with rights and the guarantee of privacy, the preservation of the secrecy and the informed consent as inviolable rights in the assistance to health(9).

Pregnancy in adolescence implies in complete assistance, once, besides the modification of pregnancy itself, there are transformations of the adolescence, which can enhance the risks for the mother and/or for the baby.

Conceptions and practices in the care to the adolescent are constituted based on the needs detected by the health agents. The attention to the adolescent is an essential environment in the scope of the assistance and the education, in the production of care, which search for transformations focused on the aspects of humanization and the formation of the subject and her citizenship(10). The dynamics of the contemporary society with its changes in the relations in the scope of the families, school and work, have brought important repercussions in the formation of the youths. The vulnerability and the physical and social risks to which they are exposed reveal matters such as the unsafe sexual practice, with unplanned pregnancy, among other factors which escape from the control in the individual scope. It is within this context that there must be a multidisciplinary assistance to these youths, mainly with especial attention in the adolescent pre-natal care(11).

In this context, studies are necessary in order to point out and relate the main causes and occurrences of deliveries involving adolescents to contribute for the organization of the service to this specific population (newborn and adolescent mother), sharing and discovering favorable changes to the reduction of damage and to the promotion of health of this population. So, the research followed this objective: characterize the profile of maternity in adolescence, highlighting the social economical and clinical obstetric aspects.

Method

It is a descriptive, cross-sectional, quantitative study, once it explored the distribution of diseases and characteristics of health of a group and a specific moment in time(12). Developed in a tertiary hospital of the Unified Health System, in Fortaleza, CE, Brazil, considered as a reference hospital for the assistance of high complexity, pregnancy, the childbirth and puerperium, including the adolescence period.

The data collection was made from February to May, 2011. During this period, it was observed that there were approximately 100 registers of childbirths which occurred during the week, excluding Saturdays and Sundays, at the unit of a joint delivery room. Considering that the population in this period was below 200, the sample was equal to the population, thus there was no need of sampling calculation.

The data collection was made through interviews with the adolescent mothers in immediate puerperum, from the first to the tenth day of hospitalization in the joint delivery room. The criteria of inclusion were mothers-to-be from 10 to 18 years of age, mother of a healthy newborn or not, stable clinical conditions of the mother in order to favor the dialogues with the interviewer. The mothers who had difficulty in communication for any reason were excluded.

The information on the variables concerning the clinical conditions, maternal complications and the newborn were extracted from the medical records by the researches.

Data processed by the statistical program Statistical Package for the Social Science, version 17.0, through codification of the answers. For some open answers, previous to this stage, there was a categorization with a semantic grouping of the answers so that they could be processed in the program. So, the research had eminent quantitative analyses.
The age prevailed between 16 and 18 years (73%) with an average of 16.38 years. Most of the adolescent lived with the father of the child (79.6%), that is, the partner. Regarding schooling, most of them had elementary school (54%) did not have paid activity (86.7%) and had family income up to one minimum wage (90.4%). Menarche and beginning sexual life occurred before 13 years of age in 77.7% and 28% respectively; 20% were multiparous. It was evident that in higher age ranges (17 to 18 years of age) there was a higher rate of complications (18.9%) (Table 2).

### Table 2 - Characteristics of the adolescents, according to age and occurrence of complications in childbirth

<table>
<thead>
<tr>
<th>Complications in childbirth</th>
<th>Age (years)</th>
<th>Total n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-14</td>
<td>15-16</td>
<td>17-18</td>
</tr>
<tr>
<td>Yes</td>
<td>1(11.1)</td>
<td>7(18.4)</td>
</tr>
<tr>
<td>No</td>
<td>8(88.9)</td>
<td>31(81.6)</td>
</tr>
<tr>
<td>Total</td>
<td>9(100.0)</td>
<td>38(100.0)</td>
</tr>
</tbody>
</table>

It was observed that the average of pre-natal consultations were very close both for the ones who had complications as well as for those who did not present them, with a smaller frequency for the newborns who were born dead or for the mothers who had abortion (3%) and higher for the ones without complications (6.5%) (Table 3).

It was evident that 51.06% of the babies were born with some complication, being prematurity the most recurrent one (no.=27; 56.3%). Therefore, the earlier the beginning of pre-natal assistance was, the better the results were. The premature birth can be related to the inadequate number of pre-natal consultations.

It was registered that 56 mothers of newborns without complications were above the average (6.25) of consultations preconized by the health department. This reaffirms the importance of the pre-natal consultations for the decrease of the clinical obstetric occurrences, both for the mothers as well for the babies.
Discussion

The study showed that the greatest part of the pregnant adolescents were between 16 and 18 years of age (73%), and lived with the partner (27.9%), as if pregnancy were a predominant factor for the conjugality among adolescent couples.

Among 285 adolescent mothers in the state of Piauí, Brazil, it was observed that 70% lived with the partner (13). In Fortaleza, no adolescent reported to be legally married, but 58% reported that they lived with the partner, a fact motivated at the time of the pregnancy. The others were single (42%), dated the father of the baby and reported to have a good relationship with him (14).

It is outstanding that the conjugal life motivated by an early pregnancy does not imply in financial independence concerning the family of origin, and care, regarding the newborns. Because of that the health professionals must be cautious in the care of adolescent mothers, once they are mainly in the first phase (12 to 15 years of age) of their adolescence, they need family support to make the continuity of their routine activities (studying and working) feasible, but always making the mother responsible for the baby as well, but also to interrupt the idea of a new pregnancy according to the family planning.

Concerning schooling it was noticed, in this study, that the majority attended elementary school and did not have any paid activity (86.7%), therefore, depending on the family income, and most of them had family income of one minimum wage (46.8%), as it is expected, once she is at the top stage of growth and performance of intellectual activities. It is considered that the lowest level of schooling of the adolescent mother is the one of the main consequences of pregnancy in this age range. It is highlighted that the delay in the studies and inadequate education contribute to the fact that these girls do not have articulated projects of life or educational and professional perspectives, so pregnancy and the care with the children end up substituting occasional personal ambitions, once the adolescents assume roles which are related to the constitution of the family or to the provision of income, which are incomparable with the maintenance of the studies (15).

The vulnerability and the physical, emotional and social risks in which the adolescents are exposed to reveal matters such as the unsafe sexual practice, with the occurrence of non-planned pregnancy, among other factors which are out of control in the individual scope. It is in this context that there must be a multidisciplinary assistance to these youths, mainly with special attention to the adolescent’s prenatal consultations (11).

This phenomena related to early pregnancy characterize problems of public health, not only because of the significant number of pregnant adolescents, but also because of the several repercussions in the life of the adolescent, once, besides the biological risks for the mother and the child, pregnancy in adolescence also causes emotional and economical disorders for the family nucleus (16).

### Table 3 - Complications related to newborn of adolescent mother in relation to the number of prenatal consultation in a state public hospital in Fortaleza

<table>
<thead>
<tr>
<th>Complications of the newborn</th>
<th>n</th>
<th>X</th>
<th>S</th>
<th>Average IC 95%</th>
<th>Min.</th>
<th>Máx.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Inferior Limit</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Superior Limit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prematurity</td>
<td>27</td>
<td>5.44</td>
<td>2.082</td>
<td>4.62</td>
<td>6.27</td>
<td>1</td>
</tr>
<tr>
<td>Perinatal asphyxia</td>
<td>9</td>
<td>5.89</td>
<td>2.147</td>
<td>4.24</td>
<td>7.54</td>
<td>1</td>
</tr>
<tr>
<td>Metabolic disorders</td>
<td>4</td>
<td>5.25</td>
<td>1.893</td>
<td>2.24</td>
<td>8.26</td>
<td>4</td>
</tr>
<tr>
<td>Jaundice</td>
<td>3</td>
<td>5.33</td>
<td>2.082</td>
<td>0.16</td>
<td>10.50</td>
<td>3</td>
</tr>
<tr>
<td>Neonatal infection</td>
<td>3</td>
<td>5.33</td>
<td>0.577</td>
<td>3.90</td>
<td>6.77</td>
<td>5</td>
</tr>
<tr>
<td>Dead fetus and abortion</td>
<td>2</td>
<td>3.00</td>
<td>0.000</td>
<td>3.00</td>
<td>3.00</td>
<td>3</td>
</tr>
<tr>
<td>Without complications</td>
<td>46</td>
<td>6.25</td>
<td>1.811</td>
<td>5.76</td>
<td>6.73</td>
<td>2</td>
</tr>
</tbody>
</table>

**X = Consultations**  
**CI 95%: Confidence interval 95%**  
**S = Standard deviation**  
**N = Number of children who presented complications. Only one complication per child was appointed.**  
The minimum and the maximum refer to the number of consultations by the mother in prenatal.
Concerning the reproductive aspects the study reveals that the first sexual intercourse prevailed in girls from 13 to 15 years of age, the menarche under 13 years of age and regarding the number of pregnancies only one pregnancy prevailed. A study made in Rio Grande do Sul, Brazil, reveals that the adolescents consider that the possibility of getting pregnant is not a part of their worries, as in this case, it happens as an unexpected consequence. The experiences of the first sexual relation appears to be detached from other situations in the life of the adolescent who directs her actions to pleasure and the fulfillment of her desires\(^{17}\).

Pregnancy in adolescence, depending on the maternal conditions and on the attention and pre-natal care, can bring perinatal disorders and prematurity is very common. It was also registered in this research that 27% of the births were premature and other associated occurrences such as: neonatal infection, metabolic disorders, among others overlapping the condition of prematurity.

A research made evident that the childbirth in adolescence was associated to low weight at birth and to prematurity, once at a more advanced age there were the lowest rates of Apgar in the fifth minute as well as preeclampsia, premature rupture of membranes and diabetes, in addition to the slightly elevated risk of cesarean childbirth as compared to adults\(^{18}\).

The literature shows that pregnancy in adolescence is associated to situations of prematurity, low weight at birth, perinatal death, epilepsy, mental disability, development disorders, low intellectual quotient, blindness, deafness, natural abortion, besides death in childhood. It is also highlighted that the risks of pregnancy in adolescence are still associated to low enrollment in the pre-natal assistance shown by the adolescents\(^{6}\).

However, the adolescent is prepared during the pre-natal consultations and having received orientations pertinent to pregnancy, to childbirth and to puerperium, will face the experience with more security, harmony and pleasure, once the lack of information can generate unnecessary worries and frustrated expectations, including her role as a nursing mother\(^{19}\).

Therefore, there is the need to invest in the assistance and in the education of the adolescent pregnant and the nursing mother, with the intention to protect the maternal and child health. Understanding that pregnancy in adolescence is not necessarily a risk factor and perinatal complications, once it also depends on the health and social economic conditions including accesses to the service of health.

A study developed in Campina Grande, Brazil, the frequency of childbirth of adolescents was 27.2% and main risk factors associated to pregnancy in adolescence were the low schooling of the adolescence, the early beginning of sexual activity and maternal history of pregnancy in adolescence. As protecting factors, there has been the history of previous gynecological consultation and the use of hormonal methods\(^{15}\).

According to that, the family planning in the population of adolescents is extremely important and the prevention of disorders to this population is a challenge to public policies. It is also necessary to have respect and the promotion of the autonomy of the adolescents so that they can live their sexuality completely and with a planning of contraception or conception in the scope of the promotion of the health.

To offer favorable environment to the health of the adolescent it is necessary to pay attention to aspects beyond the biological and epidemiological ones defined in the profile of health of this population, widening the concept of health and the promotion of health \(^{5}\). This implies in observing the social and health conditions and the attention to their need for the physical mental and social welfare to involve family relations, at school and with their peers.

**Conclusion**

This research characterized the profile of the pregnancy/maternity in the adolescence. In
conclusion the majority had a partner (79.6%), low family income (90.4%) and low schooling (54%), did not have a paid occupational activity (86.7%). Besides that, the adolescents reported the early sexual activity (90.3%); and prematurity was the most frequent complication (56.3%).

When considering the reproductive aspects, the age of the menarche and the beginning of sexual life of these adolescents happened before 13 years of age, corresponding to 77.7% and 28%, respectively. Regarding the occurrence of complication during childbirth one must not attribute the early age as a complicating factor. It was evident that in higher age ranges (17-18 years) there was a higher rate of complications. However, for the lower age range there were lower complications. Therefore, for that population studied, age was not established as a factor of protection.

It was noticed that the averages of pre-natal consultations were very close, both for the ones who were attacked by complications as well as for those who were not, except for the newborns who were born dead or aborted. It should be considered that 51.1% of the babies were born with some complication, being prematurity the most recurrent one, accounting for half of the cases because of that the earlier the beginning the pre-natal assistance happens, the better the results are.

In relation to the proposals of intervention, it is necessary to readjust the programs of family planning, making them more effective in the prevention of early pregnancy, especially in adolescent women, besides widening the coverage and quality of assistance essentially in basic attention.

Another strategy would be the introduction of programs of sexual education at schools, once it is known that the lack of knowledge regarding contraceptive matters and/or the inadequate use of those, contribute for the occurrence of pregnancy among adolescents. The stimulus to young mothers to go to postpartum consultations is necessary as well as having family planning, to have access and learning regarding contraceptive matters, once, even having knowledge it is necessary to provide stimulus and professional orientation in basic attention and in specialized service to reproductive health.

Collaborators

Queiroz MVO contributed to the conception, collection of the field data, analyses, interpretation of the data and writing of the article. Brasil EGM, Alcântara CM and Carneiro MGO contributed to the conception and final approval of the version to be published.

References


6. Dias ACG, Teixeira MAP. Gravidez na adolescência:


