Impact of first sexual intercourse on the sexual and reproductive life of young people in a capital city of the Brazilian Northeast

Thatiana Araújo Maranhão [1]
Keila Rejane Oliveira Gomes [2]
Delvianne Costa de Oliveira [2]
José Machado Moita Neto [2]

Abstract *This study aimed to analyze the repercussion of first sexual intercourse on the number of pregnancies and partners of teenagers with obstetric history in Teresina (PI), Brazil. This is a cross-sectional study with 464 young women selected by accidental sampling who gave birth at 15-19 years of age in the first four months of 2006 in six maternity hospitals of the municipality. Primary data was collected from May to December 2008 at the participants' homes after tracking them in the hospital medical records. The univariate and bivariate analysis were performed by descriptive statistics and Pearson's Correlation Coefficient Test or T-test, respectively. Tukey's post hoc test was used as post hoc test and significant variables on the bivariate analysis (p < 0.05) were also included in the multifactor analysis of variance model. Schooling (p < 0,001) and menarche's age (p < 0,001) influenced the age of first sexual intercourse and this, in turn, showed significant negative correlation (p < 0.01) with the number of partners and pregnancies of young women. Thus, the earlier the young women start sexual activity, the higher the number of pregnancies and sexual partners until the moment of their reproductive life. Thus, early first sexual intercourse had a negative repercussion on these variables.*

Key words *Sexual behavior, Pregnancy in adolescence, Sexual and reproductive health*

[1] Curso de Enfermagem, Universidade Estadual do Piauí. Av. Nossa Senhora de Fátima S/N, Bairro de Fátima. 64202-220 Parnaíba PI Brasil. thatymaranhao@hotmail.com
[2] Universidade Federal do Piauí. Teresina PI Brasil.

Introduction

Adolescence is a life stage characterized by rapid growth, emergence of secondary sexual characteristics, personality structure, environmental adaptation and social integration. Adolescents attempt to detach themselves from the infantile phase to assume behaviors that transform them into a socially accepted adult. In this process of transformation, they become more aware of their own sexuality, which has been constructed throughout life through the interpersonal relationships established between the individual and the environment in which they live as an opportunity to develop their sexual interaction capacity[1]. However, while the development of sexuality is something natural and expected, young people have increasingly engaged in premature and risky sexual activities[2,3].

For many young people who start their sexual life in adolescence, this event is perceived as an opportunity to express the exercise of autonomy and sexual freedom, sensations that evidence a more emotional than rational meaning[4]. However, many adolescents do not understand that this event also represents their most intense introduction in the group vulnerable to Sexually Transmitted Infections (STIs), unplanned pregnancy and abortion[5]. Since they do not perceive unsafe sexual practice risks, some adolescents experience this moment without worrying about the possible negative consequences that this event may cause[6].

Evidence from national and international surveys shows that the onset of sexual life often occurs in adolescence[7,8]. Factors that influence this event are related to the complex determinants that involve biopsychosocial issues. Anticipation of the first coitus is often associated with biological changes, such as early menarche[9]. In relation to psychic development, the search for the definition of sexual identity contributes to young people experiencing new sensations through sexual practices[10]. From the social point of view, studies have shown that early engagement in sexual life is related to the economic level, schooling, religion, group influence, gender social models and violence in its various aspects, increasing the vulnerability of young people to factors that pose a risk to their health[11,12].

Assuming risky behaviors that may jeopardize the sexual and reproductive health of young people can be evidenced from the onset of sexual life, since young people have in the first sexual relationship a range of factors that predispose them to the inadvertent exercise of sexuality, such as early first sexual intercourse, inadequate use of contraceptive methods, lack of guidance on sexuality, poor ability to negotiate contraceptive use, among others[13-15].

The consequences of the factors mentioned above have reflected in the country's fertility rates, which, while declining from 18.8% in the year 2000 to 17.7% in 2010 among adolescents aged 15-19 years, still highlight the participation of this age group[16]. Data from the Brazilian Institute of Geography and Statistics[17] show that, in 2006, 21.5% of all deliveries in Brazil were among adolescents aged 10-19 years, which corresponds to one in five pregnant women. On the other hand, in the state of Piauí, 26% of total deliveries occurred in adolescents, a percentage higher than the national average.

In addition to early pregnancy, another worrying issue is the vulnerability of adolescents to STIs. Regarding new cases of people living with HIV who were notified in 2010, the incidence rate among young people of both genders 15-24 years was 9.5/100,000 inhabitants, representing a significant value of the national rate for all age groups, which was 17.9/100,000[18].

In view of the above, it is observed that the problem of young people's exposure to multiple sexual partners, in this study understood as two or more partners, together with the incorrect use or non-use of contraceptives are manifested from the onset of sexual life[4,6]. These risky behaviors can jeopardize the future of young people, with negative repercussions, among them, precocious and unwanted pregnancy for that moment, which, in turn, can cause school dropout and limit the entry of young people in the labor market[6,13].

Thus, this study aims to contribute to the clarification of factors that predispose adolescents to pursue their first sexual intercourse themselves, the implications of early first sexual intercourse in their reproductive life, as well as issues that involve their first sexual experience, such as the use or not of contraception at the first intercourse and the method chosen. Based on this, this study aims to analyze the repercussion of the first sexual intercourse in the sexual and reproductive life of young people with obstetric history in Teresina (PI), characterized by the number of partners and pregnancies, respectively.

Methodology

This is a cross-sectional study that underlies the research project entitled *Pregnancy in adolescence: relapse predictors* [English translation of Portuguese title], which was developed by the Nursing Department of the Federal University of Piauí. Data were collected from May to December 2008 among young people living in the urban area of Teresina, capital of Piauí, who completed a pregnancy in the first four months of 2006, when they were 15 to 19 years old.

Considering that the study that originated this research aimed at analyzing the relapse of adolescent pregnancy, a retrospective search of young women was conducted in the databases of six maternity hospitals in the city, namely, five public and one private institution, two years after completion of pregnancy in 2006. The justification for this term arises from the WHO recommendation that advocates the ideal interpartal interval of at least two years, when the previous pregnancy resulted in a live fetus[19].

According to records from the Department of Information Technology of the SUS (DATASUS), in 2006, there were 2,852 live children born to mothers aged 15-19 years, corresponding to 19.5% of all births of mothers residing in Teresina. Of this total, the proportion calculated for the first four months of that year was 950 young women (36.8%). However, since all forms of pregnancy resolution would be included in the study, and some of them are not known in all their realms due to their underreporting, such as abortion, the calculation of the probabilistic sample would not be feasible. However, the probable sample estimate was about 1,000 cases, which allowed the researchers to decide that this number would be viable through the resources available for the implementation of the study. Thus, due to the limitation of being unable to use a probabilistic sample, we opted for the accidental sampling, which consists of elements that can be located in a pre-determined period of time[20].

Initially, young women were located through their identification in the maternity hospitals records. Then, a telephone contact was made to invite them to participate in the research. When telephone contact was not possible due to unavailability in the hospital records, but the address was available, two interviewers were sent to their home address. If they accepted to participate in the research, the semi-structured, pre-coded and pre-tested form was applied. In the event of any impediment to the application of the form at that time, telephone numbers were requested for later contact and a new date and time of the interviewers' visit was scheduled.

The young women who were not found were listed so that, later, primary care nurses who worked in the teams corresponding to the area where the young woman was supposed to reside were asked to try to locate them with the Community Health Worker of the respective micro-area. This same procedure was performed when neighbors of the young woman's home address only reported the neighborhood she had moved to, without the new address. Thus, nurses from the PHC facility of the neighborhood where the girl allegedly moved to were asked to try to locate her.

Since search occurred through secondary data from maternity hospitals two years after their registration, it was expected that many cases would not be located. Another limitation of the study was the impossible access to curettage cases of the private institution, due to secrecy of this information. Thus, among the population of 632 young women from whom we could to locate information in hospital records, 464 responded to the form and 168 were considered lost cases. Losses occurred due to the non-location of 164 young women (despite all the strategies employed), three refusals to participate in the study and one maternal death.

In order to achieve the objectives proposed for this study, the form contained questions that aimed to characterize the sociodemographic, reproductive and sexual profile of the young women, such as schooling, employment, study, living with companion, number of pregnancies and sexual partners. Other variables that characterize first sexual intercourse were also considered, among them the sexarche's age group, which corresponds to the first sexual intercourse[4]; time elapsed between the beginning of the relationship with the partner and sexarche; if she received parental and school guidance before first sexual intercourse; if she sought health services for sexual guidance; if contraceptive was used at the first intercourse and method used.

After collection, data were entered into the Epi info 6.04d software (US Centers for Disease Control and Prevention, Atlanta, GA) in two databases, by different people, to allow the detection of inconsistencies and corrections. Statistical and inferential analysis was done through the Statistical Package for Social Sciences version 18.0.

For data univariate analysis, we used descriptive statistics related to first sexual intercourse

characteristics, sociodemographic and reproductive variables. In the bivariate analysis, Pearson's chi-square test (χ^2) or t-test for independent samples were used, as appropriate, to test possible associations between the age of first sexual intercourse (dependent variable) and sociodemographic, reproductive and first sexual intercourse characterization variables (independent variables)[20].

Variables with a significant association in the bivariate analysis (p<0.05) with age at the time of the first sexual intercourse were included in the Multifactor Analysis of Variance model. This model is used to identify predictive factors that could influence the age of first sexual intercourse[21]. When means of the age of first sexual intercourse were different from each other, Tukey's post hoc test was used to show the significant differences between the tested values for more than two groups[20]. Below Table 3 are the possible comparisons between any two combinations of involved categories duly pointed out to comparisons in which there is significant difference.

Pearson's correlation coefficient was used to evaluate possible repercussions of the age of first sexual intercourse on the number of partners and pregnancies of young women until the moment of the interview. Thus, values of r = 1 or r = -1 were established as parameters, so the closer the extreme values are, the greater the linear association between variables[22].

In order to comply with all the ethical and legal requirements of research with human beings, according to resolution 196/96 of the National Health Council, the major project that corresponds to this study was submitted and approved by the Research Ethics Committee (CEP) of the Federal University of Piauí under CAAE n ° 0056.0.045.000-08. All participants in this research were asked to sign the Informed Consent Form (ICF). The signature of the ICF was made by the legal guardian when the girl was under 18 years of age. In addition, before data collection onset, authorization was requested for access to participants' data to the managers of the state institution, the Municipal Health Foundation, manager of the Unified Health System in Teresina and the private hospital's board.

Results

Most of the young women lived with their companion (63.6%), declared themselves Catholic (81.2%) and belonged to the age group 20-22 years (69.8%), with a mean age of 20 years (SD = 1.31). At the time of the interview, two out of three young women no longer attended school (69.6%) (Table 1). This was defined as school dropout, and of those who dropped out of school, none enrolled at the university and more than half (56.3%) interrupted their studies while still in elementary school (data not shown in Tables). Regarding employment, 72.2% stated that they did not engage in paid work. Of these, 67.2% did not work or study (data not shown in Tables).

Table 1 shows that 50.6% of the participants reported having menstruated for the first time at 12-13 years of age, and the mean age of menarche was 12.8 years (SD = 1.49). Almost one in five young women had been pregnant at least three times (19.4%) and 49.1% were primigravidas. Regarding the number of sexual partners up to the time of the interview, 42.2% of the respondents reported that they had a single sexual partner.

The young women's first sexual intercourse varied from 9 to 19 years, with a mean age of 15.32 years (SD = 1.59). The first coitus occurred in the 16-17 years age range for 38.6% of the young women. Relationship time with the first sexual partner until the beginning of the sexual activities was above one year for most of the participants (53.8%). Guidance on how to avoid pregnancy and STIs before the first sexual intercourse was more often given at school (72.2%) than by parents (42.5%). More than half of the young women reported not having sought counseling at the health service before having the first sexual intercourse (78.0%) and used some contraceptive at the first intercourse (55.6%), and the male condom was the most commonly used method (89.1%) (Table 2).

In the bivariate analysis, the variables related to religion (p = 0.162), work (p = 0.573), adolescent pregnancy among siblings of the participant (p = 0.483) and sexual guidance received from the parents (p = 0.937) before the onset of sexual activities did not show a statistically significant association with the age of the first sexual intercourse. However, schooling (p < 0.001), age at menarche (p = 0.0001), dating time with the first sexual partner (p = 0.001), sexual guidance at school (p = 0.001) and at the health service (p = 0.005) were significantly associated with the age of first sexual intercourse (Data not shown).

Variables that had a significant association (p < 0.05) in the bivariate analysis with age at the time of the first sexual intercourse were includ-

ed in the multifactor analysis of variance model, which identifies the predictive factors that interfere in the age of the first sexual intercourse. The following were significant to onset of sexual life: schooling (p < 0.001), age at menarche (p <

0.001), dating time with the first sexual partner (p = 0.046) and sexual guidance at school (p = 0.012). However, sexual guidance of health services (p = 0.892) was not significantly associated with onset of sexual activities (Table 3).

Tukey's post hoc test applied to schooling showed that the mean age of the sexarche is significantly lower for participants who, at the time of data collection, stated that they were functionally illiterate (13.83), with the mean age of the first coitus increasing progressively as the schooling of young women also increased, reaching 16.00 years when the participant referred to higher education or not. The test also showed that menarche occurring in the two early age groups (9-11/12-13) had a significantly differ-

Table 1. Distribution of young women with gestational history according to sociodemographic, reproductive and sexual aspects in Teresina (PI), Brazil. 2008.

Characteristics	n	%
Age group (full years)		
17-19	140	30.2
20-22	324	69.8
Living with companion		
Yes	295	63.6
No and does not have marital ties	108	23.3
No but has marital ties	61	13.1
Religion		
Catholic	377	81.2
No religion	32	6.9
Other religions	55	11.9
Currently studying		
Yes	141	30.4
No	323	69.6
Schooling		
Functional illiterate (< 4 years)	6	1.3
Incomplete primary school (≥ 4 years)	161	34.7
Complete primary school	55	11.8
Incomplete secondary school	149	32.1
Complete secondary school	82	17.7
Higher Education (complete or not)	11	2.4
Currently employed		
Yes	129	27.8
No	335	72.2
Menarche's age group (full years)		
9 – 11	87	18.8
12 – 13	235	50.6
14 – 18	142	30.6
Number of pregnancies		
1	228	49.1
2	146	31.5
≥ 3	90	19.4
Number of sexual partners up to the moment of the interview		
1	196	42.2
2	113	24.4
3 to 5	124	26.7
> 5	31	6.7

Table 2. Characterization of the first sexual intercourse of young women with gestational experience in Teresina (PI), Brazil. 2008.

Characteristics	n	%
Age group of first sexual intercourse		
9-14	136	29.3
15	113	24.4
16-17	179	38.6
18-19	36	7.7
Time elapsed between onset of relationship and first sexual intercourse (years)[a]		
≤ 1	213	46.2
> 1	248	53.8
Received parents' sexual guidance before first sexual intercourse		
Yes	197	42.5
No	267	57.5
Received school's sexual guidance before first sexual intercourse		
Yes	335	72.2
No	129	27.8
Sought health services to receive sexual guidance		
Yes	102	22.0
No	362	78.0
Use of CM[b] in the first sexual intercourse		
Yes	258	55.6
No	206	44.4
CM use in the first sexual intercourse		
Male condom	230	89.1
Other	28	10.9

[a] Three young rape victims at the first intercourse were excluded. [b] CM: Contraceptive Method.

ent mean of first sexual intercourse from the age group reporting later menarche (14-18). In addition, the age of onset of sexual life was higher among young women with late menarche, compared to those whose first menstruation occurred at earlier ages (Table 3).

The age of first sexual intercourse showed significant negative correlation ($p < 0.01$) with the number of partners (Graphic 1) and pregnancies of young girls until the interview (Graphic 2). This shows that the earlier the young woman's first sexual intercourse age, the greater the number of pregnancies and sexual partners, and vice versa. The mean number of sexual partners and pregnancies up to the moment of the interview showed a statistically significant correlation ($p < 0.0001$) (data not shown in Charts). While all correlations were significant, the value of the correlation coefficient was distant from the extreme values of the correlation coefficient ($r = -1$ or $r = 1$).

Discussion

The results showed that young women with a gestational history began their sexual life at an early age, which resulted in greater exposure to multiple partners and pregnancies in adolescence. Anticipation of first sexual intercourse has been pointed out as a relevant factor for a series of negative implications in the life of young people, such as exposure to STIs[23], unplanned pregnancies[24], alcohol abuse and tobacco use[23]. These implications suggest the need to adopt health education strategies so that young people are sensitized to postpone the onset of sexual life.

As important as the problem of early first sexual intercourse and its harmful repercussions is whether the adolescent uses some contraceptive method during her first experience. It was observed that a significant portion of young women in this study abstained from using the Contraceptive Method (CM) at their first sexual intercourse. This is particularly worrisome, as some people argue that young people's decisions

Table 3. Multifactor analysis of variance of predicting factors associated with the age of first sexual interaction of young women with a gestational history. Teresina (PI), Brazil, 2008.

Factors	n[a]	%	Mean age at first sexual intercourse	p
Schooling (1)				**< 0.001**
Functional illiterate (A)	06	1.3	13.83	
Incomplete elementary school (B)	158	34.3	14.69	
Complete elementary school (C)	55	1.9	15.58	
Incomplete secondary school (D)	149	2.3	15.64	
Complete secondary school (E)	82	7.8	15.99	
Higher Education (complete or not) (F)	11	2.4	16.00	
Menarche's age group (in years) (2)				**< 0.001**
9 – 11 (A)	86	18.7	14.76	
12 – 13 (B)	233	50.5	15.15	
14 – 18 (C)	142	30.8	16.04	
Received school's sexual guidance before first sexual intercourse				**0.012**
Yes	334	72.5	15.49	
No	127	27.5	14.98	
Dating (years)				
≤ 1	213	46.2	15.10	**0.046**
> 1	248	3.8	15.57	
Sought health services to receive sexual guidance				0.892
Yes	102	22.1	15.72	
No	359	77.9	15.25	

[a] Three young rape victims at the first intercourse were excluded. [b] (P = 0.0001). (1) AxB AxC AxD[b] AxE[b] AxF[b] BxC[b] BxD[b] BxE[b] BxF[b] CxD CxE CxF DxE DxF ExF. (2) AxB AxC[b] BxC[b].
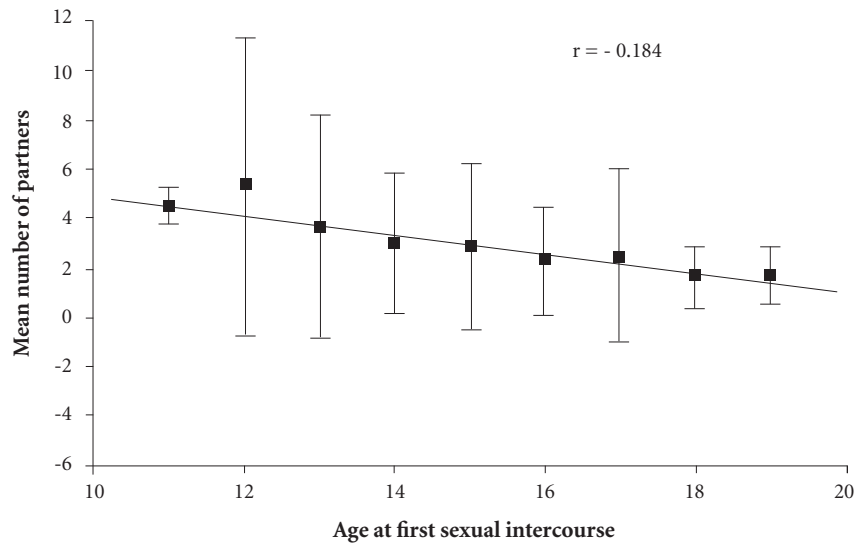
Graphic 1. Pearson correlation coefficient between the age of first sexual intercourse and the mean number of partners of young women with gestational history. Teresina (PI), Brazil, 2008.
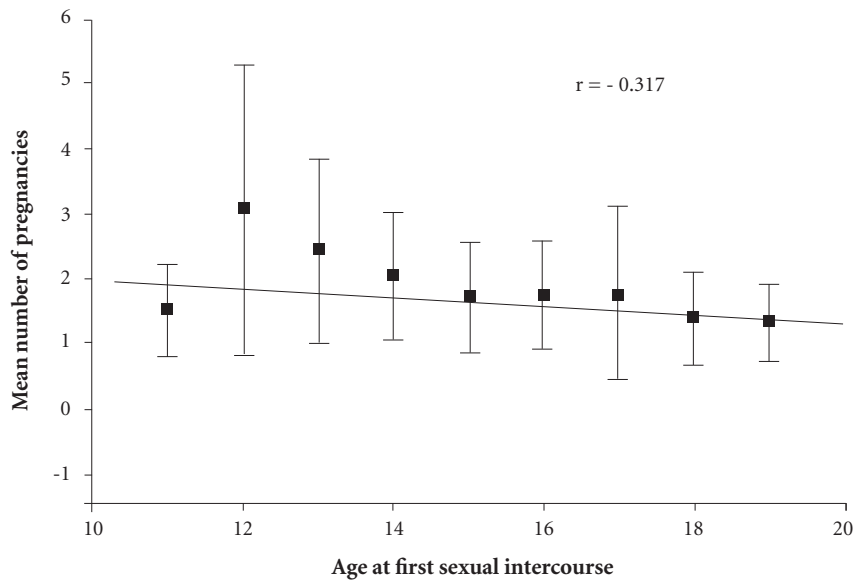
Graphic 2. Pearson correlation coefficient between the age of first sexual intercourse and the mean number of pregnancies of young women with gestational history. Teresina (PI), Brazil, 2008.

about contraceptive practices are taken at the onset of sexual life, since those who used some method at first intercourse are less likely to have an unwanted pregnancy and therefore more likely to be using CM in the last sexual relationship[25]. In addition, research conducted in the United States with secondary data from the National Survey of Family Growth for the period 1984-2010 showed that girls who had their first sexual intercourse at age 14 or younger are less likely to have used contraception at first sexual intercourse and tend to take more time to start using it[26].

The decision to postpone or anticipate sexual life is not always the result of own will; many young women build on prevailing social norms that advocate sexual initiative as a masculine prerogative, and it is up to women to resist for as long as possible and then to give in[27]. This fact could justify the reason why a significant portion of young women had the first intercourse with penetration after a year of relationship with the partner. In other situations, the idealization of first sexual intercourse as an inevitable event of the long-lasting relationship contributes to young people giving in early for fear of losing their boyfriend due to their virginity or for fear that he may engage in another relationship[28]. Therefore, it is crucial to have a greater debate on issues related to dating to ensure egalitarian relationships within the couple so that they may decide together the appropriate time to start sexual practices.

Anticipating or postponing the onset of sexual practice among young women of this study suffered interference from schooling, the menarche's age and access to information related to sexuality at school. Young women with higher education postponed their first intercourse at least two years, on average, when compared to those with lower schooling. A study conducted in Rio Grande do Sul showed that the lower the schooling level, the greater the risk for early sexual activity, since young people with up to four years of schooling were 41% at greater risk of having started early in comparison to those with 12 years or more of study[11]. From this perspective, access to the educational system allows young people a space to obtain information that covers issues essential to their well-being, propitiating the adoption of healthy sexual behaviors[29].

The occurrence of menarche increased the likelihood of sexual initiation among young women. For some societies, menstruation represents physical maturity, the transition to adulthood and, in some cultures is marked by rituals of sexual initiation[9]. However, sexual maturity acquired during this period does not occur concomitantly with psychological and social maturity[4], which is why the first menstruation at an early age has been associated with a higher incidence of pregnancy in adolescence[30].

Receiving school's sexual guidance proved to be a favorable factor in postponing the first sexual intercourse. A study showed that adolescents who received the first information about pregnancy and contraception were less likely to become pregnant[31], and those who received guidance on sexual abstinence and birth control were

significantly more likely to use CM at the first intercourse[32]. Conversely, adolescents who do not receive sex education tend to take risky behaviors, such as early first sexual intercourse and multiple sexual partners[33], which demonstrates the school's extreme importance in directing beneficial behaviors among young people.

However, school should not be the only institution responsible for encouraging young people to assume responsibility for a healthy sex life, since the involvement of the family and health services is also of paramount importance. Regrettably, this partnership was not evidenced in this study, because in addition to the lack of family participation in the debate on issues related to the STIs and pregnancy prevention, many young women also did not use health services as a source of information. This fact contradicts research recommendations that health professionals should advise adolescents on the correct use of CMs before they become sexually active as an effective way of avoiding unwanted pregnancies in this age group[15,26].

While the importance of approaching sexuality issues is acknowledged by parents, their disinformation about the topic or the very lack of knowledge about the sexual life of their children contributes to hindering dialogue between young people and their family[34]. Lack of openness to talk about sex with their parents may influence young people to engage in risky behaviors, because when they are unable to clarify their doubts with their parents, they tend to look for friends who often have inaccurate or incomplete information[6]. However, when parental monitoring is appropriate, children are more likely to postpone the onset of sexual practices, as they will be better prepared for this event[35].

The difficulty in addressing young people's sexuality is not only found in the family. Studies show that the fear of judgments and the lack of confidentiality of information by health professionals[36], as well as their inability to meet the needs of young people, results in the distancing of this group from health centers. The delay in seeking health services after the onset of sexual life may represent a period of continued risk, which interferes with the sexual and reproductive health of adolescents[15].

A close relationship was observed between the age of sexual initiation and the number of pregnancies that occurred until the moment of the interview. The sooner she started sexual activities, the more times she became pregnant, a result that corroborates with findings by other investigations[24,37]. For many young women, the

lack of contraceptive use has occurred since the first sexual intercourse, which may have persisted in subsequent intercourse, as about half of the participants had had at least one recurrence of pregnancy at the time of the interview. This finding suggests that the attitude of the woman in the first sexual experience can jeopardize the sexual behavior in the course of her life[25,26].

For each two young participants, one was a repeat offender and one in five had had at least three pregnancies at the time of the interview. Recurrent pregnancies in this stage of life are a worrying situation, given that, for each pregnancy, young women's probability of completing their studies, having a job and being economically independent are considerably reduced. Failure to access essential conditions for personal growth contributes to social exclusion that can be perpetuated throughout life[13,15,38,39].

It was evidenced that the anticipation of first sexual intercourse was significantly associated with the greater number of sexual partners, as well as the greater risk for pregnancy among the young women interviewed. This anticipation deserves attention, given that more than a quarter of the participants in this study had their first sexual intercourse until the age of fourteen. This result was also observed in a study that analyzed the recurrence of adolescent pregnancy in the state of Ceará, where the exchange of partners was associated with a risk condition for subsequent pregnancy, increasing the probability of a new pregnancy[40] by about 40%. Another study with adolescents from four Nordic countries found that the odds of reporting more than ten lifetime sexual partners were four times higher among women reporting early onset of sexual intercourse compared to those reporting age over 14 years on the occasion of the first intercourse[23].

Association between the diversity of partners and exposure to pregnancies may be related to the difficulty of negotiating contraceptive use with each new relationship. It has been shown that women's lack of power restricts their ability to make decisions about family planning practice, as well as to have an open discussion with their partners about this issue[41]. Women's lack of confidence in their decision-making power contributes to having many relationships marked by gender inequalities, which interferes with the negotiation of contraceptive use, increasing the likelihood of unsafe sexual practices[14].

Among the young women who reported a single sexual partner, most lived in a stable relationship. This means that the first sexual intercourse

occurred with the father of their child. The establishment of formal ties due to pregnancy is still a reality in our society. Pregnancy is associated with family pressure in order to consummate the couple's relationship[42]. By matching family's expectations, young women manage to alleviate the embarrassment of unplanned pregnancy[39]. From this perspective, we can infer that early marriage may have contributed to a reduced number of sexual partners.

It should be noted that, despite significant association between the number of partners and pregnancies, the correlation coefficient was low. This means that one variable does not explain alone the other variable. Thus, it is necessary to have a better understanding of the socioeconomic and cultural context in which these young women are inserted, since this reality has a strong influence on their way of thinking and acting vis-à-vis their own sexuality.

The inclusion of only young women with obstetric history was a limitation to the study because it was not possible to compare them to young women with no gestational history. However, it is important to note the various differences in the sexual history of young women who have become pregnant, as it was observed that, for some participants, the negative repercussions of first sexual intercourse in the first years of their reproductive life were much more significant, translated by the greater number of sexual partners and pregnancies.

Conclusion

We conclude that the earlier the onset of sexual intercourse, the greater the negative impact on the reproductive and sexual life of young women, represented by the higher number of pregnancies and sexual partners, respectively. Some variables had an important influence on the onset of young women's sexual activities. The lower level of schooling was a determinant for the first coitus at earlier ages, since those who reported being functional illiterates started sexually earlier in comparison to those who reported having completed higher education or not. Similarly, premature menarche, lack of school sexual guidance prior to the first intercourse and dating time with the first sexual partner of less than one year also influenced the occurrence of the first sexual intercourse at earlier ages.

The findings of this study suggest the need to adopt strategies that prevent the early onset of

sexual activities, pregnancy prevention and STIs. The achievement of this objective will be possible through the formulation of public policies that consider not only the individual perspective, but also the biopsychosocial context in which these young people are inserted. It is necessary to provide the appropriate conditions for young people to show positive attitudes vis-à-vis sexual practices. Thus, these actions are expected to be inclusive, involving the family and health services so that all young people gain access to quality information and to contraceptive methods to exercise their sexuality safely without harming their future.

It is also worth mentioning the crucial role of school in promoting sexual education among young people. However, young women's school dropout is observed, especially when they become pregnant and mothers, which prevents them from continuing to enjoy this important source of information. Thus, it is necessary to ensure that young women with a history of pregnancy return, as soon as possible, to the school environment so as not to increase their vulnerability to risky behaviors marked by unsafe sexual practices, favoring the recurrence of unwanted pregnancies, which could further compromise their future.

Collaborations

TA Maranhão and DC Oliveira contributed substantially to data analysis and interpretation, paper writing and final approval of the version to be published. KRO Gomes contributed substantially to the design and outline of the project, data analysis and interpretation, paper critical review and final approval of the version to be published. JM Moita Neto contributed substantially to data analysis and interpretation and final approval of the version to be published.

References

1. Ximenes Neto FRG, Dias MAS, Rocha J, Cunha ICKO. Gravidez na adolescência: motivos e percepções de adolescentes. *Rev bras enferm* 2007; 60(3):279-285.

2. Ryu E, Kim K, Kwon H. Predictors of sexual intercourse among korean adolescents. *J Sch Health* 2007; 17:615-622.

3. Melo Neto OC, Cerqueira-Santos E. Comportamento sexual e autoestima em adolescentes. 2012; *Contextos Clínic* 5(2):100-111.

4. Krauss H, Bogdanski P, Szulinska M, Malewski M, Buraczynska-Andrzejewska B, Sosnowski P, Piatek J, Demont C, Kaczmarek E, Kaczmarek C, Szpakow A, Kleszczewska E, Maciorkowska E, Klimberg AJ, Mikrut K. Sexual initiation of youths in selected European countries compared with their sexual and contraceptive knowledge. *Ann Agric Environ Med* 2012; 19(3):587-592.

5. Stockl H, Kalra N, Jacobi J, Watts C. Is early sexual debut a risk factor for HIV infection among women in sub-Saharan Africa? A systematic review. *Am J Reprod Immunol* 2013; 69(Supl. 1):27-40.

6. Moura LNB, Gomes KRO, Rodrigues MTP, Oliveira DC. Informação sobre contracepção e sexualidade entre adolescentes que vivenciaram uma gravidez. *Acta Paul Enferm* 2011; 24(3):320-326.

7. Malta DC, Silva MAL, Mello FCM, Monteiro RA, Porto DL, Sardinha LMV, Freitas PC. Saúde sexual dos adolescentes segundo à Pesquisa Nacional de Saúde dos Escolares. *Rev Bras Epidemiol* 2011; 14(Supl. 1):147-156.

8. Sweeting H, Jackson C, Haw S. Changes in the socio-demographic patterning of late adolescent health risk behaviours during the 1990s: analysis of two West of Scotland cohort studies. *BMC Public Health* 2011; 11:1-15.

9. Glynn JR, Kayuni N, Floyd S, Banda E, Francis-Chizororo M, Tanton C, Molesworth A, Hemmings J, Crampin AC, French N. Age at menarche, schooling, and sexual debut in Northern Malawi. *PLoS One* 2010; 5(12):1-8.

10. Ma Q, Ono-Kihara M, Cong L, Xu G, Pan X, Zamani S, Ravari SM, Zhang D, Homma T, Kihara M. Early initiation of sexual activity: a risk factor for sexually transmitted diseases, HIV infection, and unwanted pregnancy among university students in China. *BMC Public Health* 2009; 9(1):1-9.

11. Hugo TDO, Maier VT, Jansen K, Rodrigues CEG, Cruzeiro ALS, Ores LC, Pinheiro RT, Silva R, Souza LDM. Fatores associados à idade da primeira relação sexual em jovens: estudo de base populacional. *Cad Saude Publica* 2011; 27(11):2207-2214.

12. Berquó E, Garcia S, Lima L. Reprodução na juventude: perfis sociodemográficos, comportamentais e reprodutivos na PNDS 2006. *Rev Saude Publica* 2012; 46(4):685-693.

13. Gomes KRO, Speizer IS, Oliveira DC, Moura LNB, Gomes FM. Contraceptive method use by adolescents in Brazilian state capital. *J Pediatr Adolesc Gynecol* 2008; 11(4):213-219.

14. Bui TC, Markham CM, Ross MW, Williams ML, Beasley RP, Tran LTH, Nguyen HT, Le TN. Perceived gender inequality, sexual communication selfefficacy, and sexual behaviour among female undergraduate students in the Mekong Delta of Vietnam. *Sex Health* 2012; 9(4):314-322.

15. Moura LNB, Gomes KRO. Planejamento familiar: uso dos serviços de saúde por jovens com experiência de gravidez. *Cien Saude Colet* 2014; 19(3):853-863.

16. Instituto Brasileiro de Geografia e Estatística (IBGE). *Censo demográfico-2010*. Brasília: IBGE; 2010.

17. Instituto Brasileiro de Geografia e Estatística (IBGE). *Indicadores Sociodemográficos e de Saúde no Brasil 2009*. Brasília: IBGE; 2009.

18. Brasil. Ministério da Saúde (MS). *Boletim epidemiológico–AIDS e DST*. Brasília: MS; 2012.

19. World Health Organization (WHO). *Report of WHO technical consultation on birth spacing*. Geneva: WHO; 2005.

20. Downing D, Clarck J. *Estatística aplicada*. São Paulo: Editora Saraiva; 2000.

21. Ho R. *Handbook of univariate and multivariate data analysis and interpretation with SPSS*. London: Chapman & Hall, CRC; 2006.

22. Pestana MH, Gageiro JN. *Análise de dados para ciências sociais: a complementaridade do SPSS*. 3ª ed. Lisboa: Edições Sílabos; 2003.

23. Olesen TB, Jensen KE, Nygârd M, Tryggvadottir L, Sparén P, Hansen BT, Liaw KL, Kjaer SK. Young age at first intercourse and risk-taking behaviours: a study of nearly 65.000 women in four Nordic countries. *Eur J Public Health* 2012; 22(2):220-224.

24. Tenkorang Y, Maticka-Tyndale E. Factors influencing the timing of first sexual intercourse among young people in Nyanza, Kenya. *Int Fam Plan Perspect* 2008; 34(4):177-188.

25. Li J, Li S, Yan H, Xu D, Xiao H, Cao Y, Mao Z. Early sex initiation and subsequent unsafe sexual behaviors and sex-related risks among female undergraduates in Wuhan, China. *Asia Pac J Public Health* 2015; 27(Supl. 2):21S-29S.

26. Finer LB, Philbin JM. Sexual initiation, contraceptive use, and pregnancy among young adolescents. *Pediatrics* 2013; 131(5):1-6.

27. Moreira MRC, Santos JFFQ. Entre a modernidade e a tradição. A iniciação sexual de adolescentes piauienses universitárias. *Esc Anna Nery* 2011; 15 (3):558-566.

28. Borges ALV, Nakamura E. Normas sociais de iniciação sexual entre adolescentes e relações de gênero. *Rev. Latino-am. Enfermagem* 2009; 17(1):58-76.

29. Ishida K, Stupp P, McDonald O. Prevalence and correlates of sexual risk behaviors among jamaican adolescents. *Int Perspect Sex Reprod Health* 2011; 37(1):6-15.

30. Viellas EF, Gama SGN, Theme Filha MM, Leal MC. Gravidez recorrente na adolescência e os desfechos negativos no recém-nascido: um estudo no Município do Rio de Janeiro. *Rev bras epidemiol* 2012; 15(3):443-454.

31. Goicolea I, Wulff M, Ohman A, Sebastian SM. Risk factors for pregnancy among adolescent girls in Ecuador's Amazon basin: a case-control study. *Rev Panam Salud Publica* 2009; 26(3):221-228.

32. Lindberg LD, Maddow-Zimet I. Consequences of sex education on teen and young adult sexual behaviors and outcomes. *J Adolesc Health* 2012; 51(4):332-338.

33. Esere MO. Effect of sex education programme on at-risk sexual behaviour of schoolgoing adolescents in Ilorin, Nigéria. *Afr Health Sci* 2008; 8(2):122-127.

34. Palatni A, Seidman DS. Survey of opinions of mothers and teenage daughters on sexual behavior and contraception: descriptive study and literature review. *Int J Womens Health* 2012; 4(1):265-270.

35. Manlove, J, Wildsmith E, Ikramullah E, Terry-Humen E, Schelar E. Family environments and the relationship context of first adolescent sex: Correlates of first sex in a casual versus steady relationship. *Soc Sci Res* 2012; 41(4):861-875.

36. Carvacho IE, Mello MB, Morais SS, Silva JLP. Fatores associados ao acesso anterior à gestação a serviços de saúde por adolescentes gestantes. *Rev Saude Publica* 2008; 42(5):886-894.

37. Baumgatner JN, Gery CW, Wedderburn M. The influence of early sexual debut and sexual violence on adolescent pregnancy: a matched case-control study In Jamaica. *Int Perspect Sex Reprod Health* 2009; 35(1):21-28.

38. Maranhão TA, Gomes KRO, Oliveira DC. Couple and family relationships of adolescents post-pregnancy. *Acta Paul Enferm* 2012; 25(3):371-377.

39. Gomes KRO, Speizer IS. Longitudinal study on self-esteem among recently pregnant Brazilian adolescents. *J Reprod Infant Psychol* 2010; 28(1):1-13.

40. Bruno ZV, Feitosa FEL, Silveira KP, Morais AQ, Bezerra MF. Reincidência de gravidez em adolescentes. *Rev Bras Ginecol Obstet* 2009; 31(10):480-484.

41. Do M, Kurimoto N. Women's empowerment and choice of contraceptive methods in selected African countries. *Int Perspect Sex Reprod Health* 2012; 38(1):23-33.

42. Lopes RCS, Lopes RCS, Menezes C, Santos GP, Piccinini CA. Ritual de casamento e planejamento do primeiro filho. *Psicol estud* 2006; 11(1):55-61.