

Use of contraceptive methods by female adolescents in Restinga and extremo sul community in southern Brazil

Utilização de métodos contraceptivos por adolescentes do sexo feminino da comunidade Restinga e extremo sul

Utilización de métodos contraceptivos por adolescentes del sexo femenino de la comunidad Restinga y extremo sur

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ABSTRACT

Objective: To estimate the prevalence of contraceptives use among female adolescents and to describe their demographic and socioeconomic characteristics.

Methods: Cross-sectional study carried out at the Community Management District “Restinga/Extremo Sul”, in Porto Alegre, Southern Brazil, from July to December 2009. The sample included 487 adolescents aged ten to 19 years old, who live in this community. The main outcome was the use of contraceptive method alone or in association with other methods; independent variables were age, skin color, social class, marital status, education level in years, marital situation, job, religion, unplanned pregnancy and abortion.

Results: Among the interviewed adolescents, 51% had 15-19 years old, 67% were white, 29% and 59% respectively belonged to A/B and C socio-economical levels. The first sexual intercourse occurred on average at 15 years old. The use of contraceptive methods was reported by 75% of sexually active teens. The pill was the most frequently mentioned method (62%), followed by condoms (38%) and non-oral hormonal contraceptives (injectable or implant, 16%). No significant association was found between the use of any contraceptive method and demographic and socioeconomic variables.

Conclusions: The number of sexually active teenagers who do not use effective contraception (25%) is alarming.

Key-words: contraception; adolescent; educational status

RESUMO

Objetivo: Estimar a prevalência de uso de métodos contraceptivos entre as adolescentes do sexo feminino e descrever as características demográficas e socioeconômicas.

Métodos: Estudo transversal realizado na Comunidade Gerência Distrital Restinga/Extremo Sul, em Porto Alegre (RS), de julho a dezembro de 2009. Foram entrevistadas 487 adolescentes de dez a 19 anos, moradoras dessa comunidade. O desfecho em estudo foi o uso de método contraceptivo utilizado isoladamente ou em associação com outro método. As variáveis independentes foram: idade, cor da pele, classe social, estado civil, escolaridade em anos de estudo, situação conjugal, atividade remunerada, religião, gravidez não planejada e aborto.

Resultados: Das adolescentes entrevistadas, 51% tinham entre 15 e 19 anos, 67% eram brancas, 29% pertenciam às classes A e B e 59%, à classe C. A sexarca ocorreu, em média, aos 15 anos. O uso de algum método contraceptivo foi referido por 75% das adolescentes sexualmente ativas. A pílula foi o método mais referido (62%), seguido do preservativo masculino (38%) e do anticoncepcional hormonal não oral (injetável ou implante, 16%). Não houve associação significativa entre o uso de método contraceptivo e as variáveis demográficas e socioeconômicas analisadas.

Conclusões: O número de adolescentes sexualmente ativas sem uso de contracepção eficaz (25%) é preocupante.

Palavras-chave: anticoncepção; adolescente; escolaridade.

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RESUMEN

Objetivo: Estimar la prevalencia de uso de métodos contraceptivos entre las adolescentes del sexo femenino y describir las características demográficas y socioeconómicas.

Métodos: Estudio transversal realizado en la Comunidad Gerencia Distrital Restinga/Extremo Sur, Porto Alegre, RS, Brasil, de julio a diciembre de 2009. Se entrevistó a 487 adolescentes de 10 a 19 años, que viven en esa comunidad. El desenlace en estudio fue el uso de método contraceptivo utilizado aisladamente o en asociación con otro método, las variables independientes fueron: edad, color de la piel, clase social, estado civil, escolaridad en años de estudio, situación conyugal, actividad remunerada, religión, embarazo no planeado y aborto.

Resultados: De las adolescentes entrevistadas, el 51% tenía entre 15 y 19, el 67% eran blancas, el 29% pertenecían a las clases A y B y el 59% a la clase C. La primera relación sexual ocurrió, en promedio, a los 15 años. El uso de algún método contraceptivo fue referido por el 75% de las adolescentes sexualmente activas. La píldora anticonceptiva fue el método más referido (62%), seguido del preservativo masculino (38%) y del anticonceptivo hormonal no oral (inyectable o implante, 16%). No hubo asociación significativa entre el uso de método contraceptivo y las variables demográficas y socioeconómicas analizadas.

Conclusiones: El número de adolescentes sexualmente activas sin uso de contracepción eficaz (25%) es preocupante, principalmente al observarse el nivel socioeconómico de esa muestra.

Palabras clave: método anticonceptivo; adolescente; escolaridad.

Introduction

Adolescence is an intermediate stage between childhood and adulthood characterized by a process of biological and psychosocial maturation and development⁽¹⁾. It is an essential period of social discoveries, challenges, experiences, and expectations⁽²⁾. The Brazilian Child and Adolescent Statute (Law 8069 of 13 July 1990) defines adolescents as all individuals between the ages of 12 and 18⁽³⁾. Conversely, the World Health Organization defines adolescence as the period between the ages of 10 and 19; this concept is used by the Brazilian Ministry of Health^(1,2) counter to the legally defined age range.

Characteristics inherent to psychoemotional development and experiences of sexuality in adolescence leave adolescents

vulnerable to such risks as unplanned pregnancy, abortion, and sexually transmitted infections (STIs), including HIV/AIDS and hepatitis C. These risks may jeopardize adolescents' plans for the future and may even be life-threatening⁽⁴⁾. Another important characteristic concerns a gender issue which affects female adolescents and young adults: placement of the cultural and social burden of reproduction, childrearing, and family care on women, which reflects power inequity in gender relations, further exposing girls and women to the aforementioned risks⁽²⁾ and leaving them in a position of inferiority in the job market.

Learning about contraceptive methods and negotiating use of these methods with one's sexual partner are a major challenge to regulation of youth sexuality⁽⁵⁾. These issues are becoming the object of growing attention in Brazil, due to the increasing prevalence of sexually transmitted infections and AIDS in this age range⁽⁶⁾. Contraceptive use is the direct result of a conscious decision on the part of the individual within the context of the relationships he or she experiences—more specifically, that of a sexual relationship. This process is influenced by knowledge of sexual practices and their consequences and by information on and awareness of contraceptive methods^(7,8). Studies have shown that most adolescents attending public schools in the Brazilian municipalities of Aracaju⁽⁷⁾, Salvador⁽⁹⁾, Londrina⁽¹⁰⁾, and Guararema⁽¹¹⁾ are familiar with some form of contraception, most commonly the male condom, which is the method most widely used by adolescents in the Brazilian capitals of Porto Alegre, Rio de Janeiro, Salvador⁽⁸⁾, and São Paulo⁽¹²⁾ and on the island of Santiago, Cape Verde⁽¹³⁾.

Within this context, the aim of the present study was to estimate the prevalence of contraceptive use among female adolescents (aged 10 to 19 years) living in the Restinga/Extremo Sul Community Management District of Porto Alegre, state of Rio Grande do Sul, Brazil and describe select demographic and socioeconomic characteristics of this sample (age, self-reported skin color, marital status; social class and paid employment), as well as information on religion, unplanned pregnancy, and abortion.

Method

This was a cross-sectional, population-based study carried out on a sample of female adolescents between the ages of 10 and 19 living in the Restinga and Extremo Sul health districts of the municipality of Porto Alegre, Brazil. Institutionalized adolescents were excluded from the sample.

A total of 32,067 households were located in the study area, 29,929 of which were occupied. Division of the number of occupied households by 1,750 (the sample requirement) yielded a quotient of 17. Therefore, 1 out of every 17 successive households was visited until the minimum sample size for each sector was reached.

Due to the lack of cross-sectional prevalence data on contraceptive use among female adolescents, we chose to base our sample size calculations on data obtained from other age ranges. Sample size was calculated as 474 subjects for an estimated 70% prevalence of contraceptive use⁽¹⁴⁾, a 95% confidence interval, and a margin of error of 4 percentage points.

Data collection took place between July and December 2009. The instrument of choice was a structured questionnaire. Interviews were carried out in each chosen household, after the adolescents and their parents or legal guardians had provided informed consent. All interviews were conducted in private without the presence of a parent or guardian. Adolescents who could not be reached after three attempts at contact and those who refused to take part in the study were tallied as sampling losses, and were not replaced. To ensure the quality of collected data, 10% of the total sample was re-interviewed by a field supervisor, who administered an abridged version of the study instrument.

The study outcome was use of any form of contraception, whether alone or in combination with other methods (adolescents were free to name more than one contraceptive method). Questions were open-ended, and adolescents named their methods of choice spontaneously; no alternatives were provided. The independent variables were age (in full years), skin color (self-reported and categorized as white or non-white), social class (as defined by the Brazilian Association of Research Companies – *Associação Brasileira de Empresas de Pesquisas*, ABEP⁽¹⁵⁾), marital status, educational attainment (in years of schooling: 0–4, 5–8, or ≥9), current paid employment, religion, unplanned pregnancy, and abortion.

Data were digitized with the Remark Office optical mark recognition software and analyzed in Stata 9.0. Univariate analysis used descriptive statistics (relative and absolute frequencies) to describe the total sample of adolescents and the subset of adolescents who answered questions pertaining to the study outcome.

This study was approved by the Hospital Moinhos de Vento Research Ethics Committee.

Results

The sample comprised 487 female adolescents aged 10 to 19 years. The combined rate of sampling loss and refusal to participate was 3.2%. Table 1 shows the demographic and

socioeconomic characteristics of the study participants. Over half of the adolescents interviewed were ages 15 to 19; the average age was 15 years. The proportion of adolescents who self-reported skin color as “white” according to Brazilian Institute of Geography and Statistics (IBGE) categories was 66.6%. Participants who self-reported skin color as brown, black, red (Native Brazilian), or yellow were pooled into the “non-white” category, which made up 33.4% of the sample. In terms of social class, 29.1 % of participants belonged to classes A or B, 59.5% to class C, and 11.4% to class D or E. Overall, 52.4% of adolescents had had 8 years of schooling or fewer, and 19.3% had had more than 9 years of formal education. Most were single (92.6%) and unemployed (86.4%). Just over one-quarter of participants (25.5%) reported no religion, 64.5% were Roman Catholic, and the rest professed other beliefs.

Figure 1 shows that 114 adolescents (23.4%) had not yet had their first menstrual period, whereas 227 (46.6%) had reached menarche, but were not yet sexually active. One hundred and thirty-six adolescents in the sample were sexually active, 75% of whom reported use of some form of contraception.

Table 2 described the contraceptive methods used by all sexually active participants who did use some such method (n=110). The pill was the most common method (61.8%), followed by the male condom (38.2%) and non-oral hormonal contraceptives (injectable or implant) (13.6%). The other methods consisted of the intrauterine device and coitus

Table 1 - Demographic and socioeconomic characteristics of the study sample (n=487)

Variable	n	%
Age (years)		
10–14	237	48.7
15–19	250	51.3
Skin color (self-reported)		
White	322	66.6
Non-white	162	33.4
Social class		
A/B	140	29.1
C	286	59.5
D/E	55	11.4
Educational attainment (years)		
0–4	138	28.3
5–8	255	52.4
≥9	94	19.3
Marital status		
Single	451	92.6
Married	33	6.8
Separated/Widowed	3	0.6
Paid employment		
No	421	86.4
Yes	66	13.6
Religion		
None	124	25.5
Roman Catholic	234	64.5
Other, non-Catholic	129	35.5

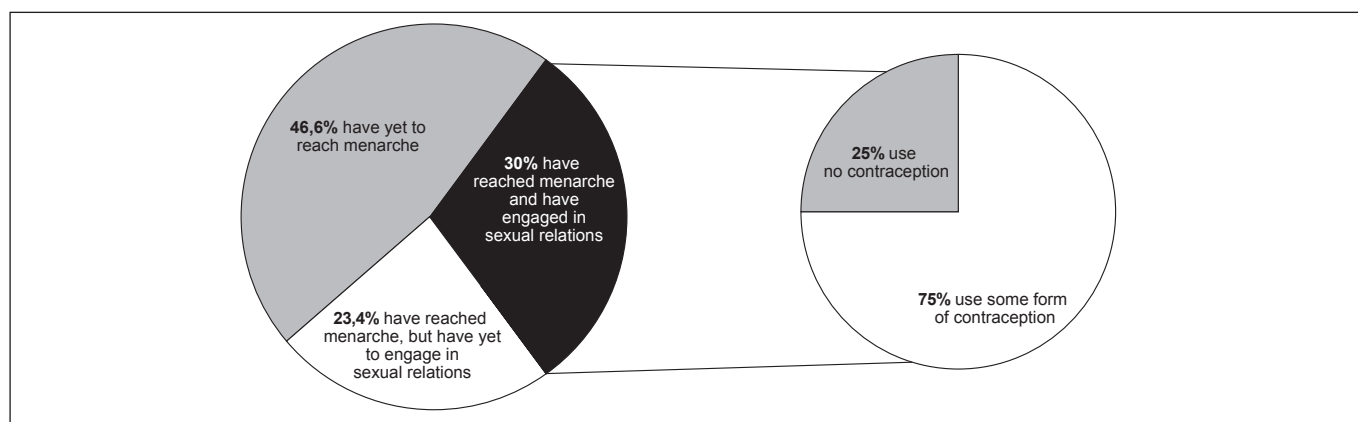


Figure 1 - Menarche, onset of sexual intercourse, and contraceptive use

Table 2 - Contraceptive methods used by sexually active girls (n=110)

Method*	n	%
Oral contraceptive pill	68	61.8
Condom	42	38.2
Injectable contraceptive	15	13.6
No sexual partner	6	5.5
No sexual intercourse	4	3.6
Intrauterine device	1	0.9
Coitus interruptus	1	0.9

*Results exceed 110 (100%) due to instances of concomitant use of more than one method.

interruptus (one user each), whereas 5.5% of respondents claimed to have no sexual partner at the time of the study.

Of the 136 sexually active adolescents, 33 had ever been pregnant; of these, nine had become pregnant more than once. The outcome was 35 liveborn infants and five abortions. Four participants were still pregnant at the time of the study. Pregnancies had been unplanned in 22 of the 33 adolescents.

Discussion

This study addressed very intimate issues in the lives of female adolescents, such as age at onset of sexual intercourse, contraceptive use, and gestational history including abortion; therefore, self-reporting of questionnaires might have yielded more reliable information.

Early menarche and early onset of sexual intercourse leave female adolescents vulnerable to STIs, HIV/AIDS, and pregnancy⁽⁴⁾. In the present sample, 30% of adolescents (n=136) were already sexually active. The mean age of sexual initiation was 15 years, similar to that reported by Taquette⁽¹⁶⁾. A prior study of 251 adolescents found the mean age of sexual initiation to be 14.7 years in those with an STI and 15.2 years in those with no STI⁽¹⁷⁾, showing that the earlier the onset of sexual intercourse, the more vulnerable adolescents are to these infections. In our study, 5.5% of adolescents had had their first

sexual intercourse at age 12, and most likely constituted an at-risk group for STI.

There were no statistically significant differences between white and non-white participants (self-reported skin color) in terms of contraceptive use. However, another study⁽¹⁸⁾ has shown that black adolescents are more vulnerable to unwanted pregnancy and STIs.

Religion had no significant influence on the use of contraceptive methods. Nevertheless, the prevalence of contraceptive use was higher among girls who claimed to be Roman Catholic (80.9%) than among non-Catholic ones (70.3%).

The overall prevalence of contraceptive use in our sample, 75%, was higher than expected (70%), similar to the rate reported by Paniz *et al*⁽¹⁹⁾. In a study of female adolescents living in the favelas of Rio de Janeiro, Taquette⁽¹⁶⁾ found a prevalence rate of 77.3% of use of some method to prevent pregnancy. In another study of adolescents matriculating at a public university in the state of São Paulo, the prevalence of contraceptive use was 82%⁽¹²⁾. In the municipality of Pelotas, Rio Grande do Sul, approximately 88% of adolescents of both genders use some form of birth control⁽²⁰⁾.

In the Taquette study⁽¹⁶⁾, the most common birth control method was the male condom (61.5%). In our sample, the pill was the leading method (61.8%), followed by the condom (38.2%) and injectable contraceptives or contraceptive implants (13.6%). The fact that over 75% of contraceptive users used effective methods is relevant, and may be due to the relatively high educational attainment of adolescents in our sample when compared to those of other studies. A survey of reproductive-aged women in Maringá, state of Paraná, found prevalence rates of 50.3% and 28.1% for contraceptive pill and male condom use respectively; in this sample, 87% of women had completed secondary school and 55.3% belonged to socioeconomic class D or E⁽²¹⁾. The aforementioned Pelotas study found that adolescents with 4 or fewer years of formal schooling were at higher risk of using no form of contraception, and that contraceptive use was directly associated with higher educational attainment⁽²⁰⁾.

The failure rate of male condom use by adolescents is known to be extremely high. The rate of male condom use in our sample was remarkably low (38.2%) in light of the countless public health campaigns directed at adolescents that foster condom use for prevention of STIs and HIV, and in view of the availability of condoms at basic health units. However, these data are similar to those reported in a study of male and female adolescents at three Brazilian capitals, in which 80.7% of girls and 88.6% reported use of the male condom during first coitus, but only 38.8% of girls and 56% of boys had used one during their latest intercourse⁽⁸⁾.

The 13.6% rate of long-acting hormonal contraception use (injectables and implants) is encouraging, and was higher than that reported in other studies⁽²¹⁾, where use of these methods did not exceed 2%. Frequent use of these contraceptives in our sample appears to have been due to a teenage pregnancy prevention program implemented in the district in 2006, which benefited underprivileged girls between the ages of 15 and 18⁽²²⁾.

In this study, 66.6% of adolescents who had ever been pregnant had not planned the event, and five had had

abortions. A study of 278 adolescents living in Teresina, state of Piauí, found a 42.4% rate of unplanned pregnancy; however, in this sample, only 33.4% of adolescents went to school, and 34.9% were either illiterate or educated to an elementary school level⁽²³⁾. The Brazilian Ministry of Health regards teenage pregnancy as a life-shattering event and a determinant of perpetuation of the cycle of poverty and poor educational attainment in populations. Studies have shown that adolescent motherhood leads to school dropout and, consequently, jeopardizes later access to the job market^(23,24).

In our sample, there was no association between socioeconomic standing and use or failure to use contraception. This stands in contrast to other studies, which have found socioeconomic level to be a facilitator of contraceptive use⁽²⁰⁾.

Our findings show that sexual health must be considered part of the concept of "comprehensive health," and that reproductive health education should be recommended as a subject of study since the very first years of elementary education, in order to prevent unwanted pregnancy and high-risk sexual behaviors in our adolescent population.

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