

# Life styles in adolescence: sexual behavior of Portuguese adolescents\*

ESTILOS DE VIDA NA ADOLESCÊNCIA:  
COMPORTAMENTO SEXUAL DOS ADOLESCENTES PORTUGUESES

ESTILOS DE VIDA EN LA ADOLESCENCIA:  
COMPORTAMIENTO SEXUAL DE LOS ADOLESCENTES PORTUGUESES

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## ABSTRACT

Recent studies have shown that adolescents have initiated their sex lives earlier and earlier, without, however, receiving consistent sex education. The objectives of this study were to analyze the sexual behavior of adolescent high school students and identify the habits of sexual health in sexually active adolescent high school students. An exploratory study was conducted with 680 adolescents, whose age ranged between 15 and 19 years. Results showed that most participants had not initiated their sex life; boys are those who most report having had sexual relations; not all the interviewed adolescents used condoms during sex; most adolescents do not practice sexual health surveillance. It is important for sexually active adolescents to receive health care and counseling. Health institutions and their workers must be proactive in trying to approach adolescents.

## DESCRIPTORS

Adolescent  
Sex education  
Life style  
Sexual behavior  
Nurse's role

## RESUMO

Estudos recentes têm demonstrado que actualmente os adolescentes iniciam a vida sexual cada vez mais cedo, sem contudo possuírem uma educação sexual consistente. Os objectivos deste estudo foram analisar o comportamento sexual de adolescentes do ensino secundário e identificar os hábitos de vigilância de saúde sexual em adolescentes, do ensino secundário, sexualmente activos. Realizou-se um estudo exploratório em que participaram 680 adolescentes, com idades entre 15 e 19 anos. Os resultados evidenciam que a maioria dos inquiridos ainda não iniciou a actividade sexual; são os rapazes os que mais reportam já ter tido relações sexuais; o preservativo não é um método utilizado por todos os adolescentes nas suas relações sexuais; a maioria dos adolescentes não faz vigilância de saúde sexual. É importante que os adolescentes sexualmente activos recebam cuidados de saúde e aconselhamento. As instituições de saúde e os seus profissionais necessitam de ser pró-activos tentando captar os adolescentes.

## DESCRITORES

Adolescente  
Educação sexual  
Estilo de vida  
Comportamento sexual  
Papel do profissional de enfermagem

## RESUMEN

Estudios recientes han demostrado que actualmente los adolescentes inician su vida sexual cada vez más temprano, sin tener una educación sexual consistente. Este estudio objetivó analizar el comportamiento sexual de adolescentes de enseñanza secundaria e identificar los hábitos de seguridad de salud sexual en estudiantes adolescentes sexualmente activos. Se realizó un estudio exploratorio con 680 adolescentes de edad entre 15 y 19 años. Los resultados demostraron que la mayoría de los participantes no había iniciado aún actividad sexual. Los de sexo masculino son quienes más reportan haber tenido relaciones sexuales; el preservativo no es un método utilizado por todos los adolescentes en sus relaciones; la mayoría de los adolescentes no vigila su salud sexual. Es importante que los adolescentes sexualmente activos reciban atención de salud y consejos. Las instituciones de salud y sus profesionales necesitan ser proactivos intentando captar a los adolescentes.

## DESCRIPTORES

Adolescente  
Educación sexual  
Estilo de la vida  
Conducta sexual  
Rol de la enfermera

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## INTRODUCTION

This study is an excerpt of a larger research project developed in the doctoral dissertation "Life styles in Adolescence: from health needs to nursing interventions", which includes a quasi-experimental study and an exploratory study. The exploratory study analyzed the lifestyles and risk behavior (sleeping, eating and exercising habits, physical inactivity, smoking, alcohol consumption, and sexual behavior) of adolescents attending high school, the frequency with which they adopt such behaviors and at what age they initiate them. The quasi-experimental study evaluated the extent to which health education administered by nurses and designed and structured for adolescents attending high school influenced the participants' acquisition of knowledge and modification of their behavior.

## OBJECTIVES

This study analyzes the sexual behavior of adolescents attending high school and identifies how frequently those sexually active seek a doctor to check their sexual health.

## LITERATURE REVIEW

Adolescence is a time to clarify values and make decisions; it is a stage essential in the acquisition and consolidation of lifestyles, whether these are healthy or not, depending on the choices adolescents make.

There has been a change in the causes of morbidity and mortality of adolescents in recent decades. Few die by natural causes. The overwhelming rate of morbidity and mortality is due to preventable causes that result from lifestyles. Many adolescents become involved in a series of behaviors that expose them to the risk of acute and chronic diseases and even death. Risk behavior during adolescence may compromise not only an individual's current health and development, but also jeopardize the entire course of his/her life. Some behaviors, such as early maternity/paternity, have irreversible consequences<sup>(1)</sup>.

Issues of sexuality are not exclusive to adolescents since psycho-sexual development occurs much earlier in life, but it is in this period that definitive sexual organization is initiated—from the somatic, psychological and sociological points of view—and when acquiring a sexual identity becomes important<sup>(2)</sup>. Adolescents seek to construct their identity integrating feelings, needs and desires.

Adolescence is undoubtedly a time when many individuals initiate sexual activity<sup>(3,4)</sup>. Various studies have shown that both female and male adolescents are currently initiating sexual relationships earlier<sup>(2,5-7)</sup>. The initiation of this

activity is not, however, associated with consistent sexual education or knowledge concerning physiology or the biological aspects of sex and reproduction. Thereby, many individuals do not use contraceptive<sup>(3,8)</sup> measures, or misuse or inconsistently use condoms, which increases not only the risk of an unwanted pregnancy but also the risk of sexually transmitted infections (STI)<sup>(2,4)</sup>.

Sexual activity during adolescence is often associated with other risk behaviors such as alcohol consumption, smoking and other drug use. Risky sexual behavior, such as engaging in sexual activity without using condoms, even if other contraceptive methods are used, having multiple sexual partners and sexual intercourse with strangers, constitutes a severe threat to the physical and psychological health of adolescents and also their social well being<sup>(9)</sup>. The prevalence of such behavior during adolescence is a major public health concern and it is extremely important to know how these adolescents protect themselves from unwanted pregnancies and STI.

The later an adolescent initiates sexual life, the more protected s/he is from negative consequences such as unwanted pregnancies<sup>(2,9)</sup>, STI<sup>(2,4,9)</sup> and from the negative psychological impact of early relationships<sup>(2)</sup>. The age at which adolescents initiate sexual activity varies considerably from country to country<sup>(3,5)</sup>. On average, male adolescents have their first sexual relationship at 17.3 years of age, while girls initiate it earlier<sup>(5)</sup>.

Even though the sexual behavior of sexually active adolescents has improved in recent years as indicated by the greater use of contraceptive methods<sup>(9)</sup>, adolescents do not always consider contraception a priority at the beginning of their sexual lives; many do not use contraceptive methods or use them inconsistently or incorrectly.

The fact that adolescents receive information/education concerning contraceptive methods and are informed of the importance of practicing safe sex is not a guarantee they will use such methods. There are adolescents who acknowledge the need to use condoms but report they forget them at the time. A lack of ability to negotiate abstinence or the use of condoms and to talk with the partner about sex, the perception that risks are low and the circumstances in which it occurs (unexpected, lack of condoms) can lead individuals to engage in unprotected sexual relationships<sup>(4)</sup>.

The impact caused on a person's health by the Human Immunodeficiency Virus (HIV) or by an unplanned pregnancy causes sexuality to be considered an urgent social and epidemiological issue. Preventing pregnancies and STIs is a major issue in health care provided to the adolescent population in the 21<sup>st</sup> century<sup>(6)</sup> because these are causes of health, social and economic problems relevant to adolescents and society in general.

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## METHOD

This exploratory study evaluates the effect of demographic indicators such as age, gender and school grade on the sexual behavior of adolescents. Data were collected through a questionnaire developed for this purpose, composed of closed, open and mixed questions and which was approved by the National Committee of Data Protection. Data collection was carried out between June and November 2005 after authorization was provided by the North Regional Direction of Education and the Executive Boards of the schools where the study was carried out. The data were collected in the classrooms during the school year. The classroom was the unit of analysis.

The Statistical Package for Social Sciences (SPSS) version 1.6 was used in the statistical analysis of the data. The data were explored through descriptive analysis: central tendency and dispersion measures and then inferential statistics.

Information obtained through open questions was analyzed through content analysis. The participants' testimonies were fully transcribed and inferences of the messages were based on an explicit logic. The characteristics of the messages were inventoried and systematized and categories were established afterwards.

### Characterization of the sample

The study's sample originated from five schools in Porto, Portugal and comprises 680 adolescents attending high school. Of these, 238 (35.0%) attended the 10<sup>th</sup> grade, 280 (41.2%) the 11<sup>th</sup> grade and 162 (23.8%) the 12<sup>th</sup> grade. Most of the participants were females (59.6%, n=405) and Portuguese (98.6%, n=669), while the remainder were Venezuelans (0.4%, n=3), Brazilians (0.3%, n=2), Swiss (0.3%, n=2), Congolese (0.3%, n=2) and French (0.1%, n=1); aged between 15 and 19 years of age, with an average of 16.61 years old (SD=1.03). The girls were on average 16.55 years (SD=0.98) and boys were 16.69 years old (SD=1.10).

Given the common characteristics of adolescents according to age, adolescence is usually divided into three phases<sup>(2)</sup>: an initial phase from 10 to 13 years of age; an intermediate phase from 14 to 16 years of age; and a final phase from 17 to 19 years of age. This division was also adopted in this study in the inferential statistics. Most of the adolescents, regardless of gender, belonged to the group between 17 to 19 years of age (50.6%, n=205 girls and 54.2%, n=149 boys).

## RESULTS

Of the adolescents who participated in the study, 35.8% (n=240) reported they had already had sexual relationships. The age at which sexual relationships were initiated varied between 13 and 19 years old with an average age of 15.49 years old (SD=1.24) and a mode of 16 years.

Girls and boys differ significantly in relation to when they initiated sexual activity ( $\chi^2=6.96$ ,  $p=0.008$ ): a higher percentage of boys had already initiated sexual activity (41.7%, n=113, vs. 31.8%, n=127 girls). There is a statistical association between the age of the adolescents and the fact of having already initiated sexual activity ( $\chi^2=69.94$ ,  $p=0.000$ ); the percentage of older adolescents who had already initiated sexual activity was higher than the percentage of younger adolescents (50.7%, n=176, vs. 19.8%, n=64, respectively). Among girls and boys who had already initiated sexual activity, those who initiated it the earliest did so at the age of 13 and those who initiated it the latest did so at the age of 19 years old (Table 1).

**Table 1** - Age of the first sexual relationship according to gender

Age at the 1 <sup>st</sup> sexual relationship	Female		Male	
	N	%	N	%
13 years old	7	5.6	7	6.3
14 years old	13	10.2	22	19.8
15 years old	33	26.2	35	31.5
16 years old	48	38.1	28	25.3
17 years old	19	15.1	12	10.8
18 years old	5	4.0	6	5.4
19 years old	1	0.8	1	0.9
Total	126	100	111	100
Did not answer	1		2	

Girls and boys differ significantly in relation to the age at which they had their first sexual relationship ( $U=5941.50$ ,  $p=0.039$ ); girls were older (15.62 years old, SD=1.19, 15.34 years old, SD=1.29 boys).

Most of the participants (89.1%, n=212) used some contraceptive method in their first sexual encounter. No significant differences were found among genders in relation to the use of contraceptives in the first sexual experience ( $\chi^2=0.54$ ,  $p=0.46$ ). The participants who had their first experience at the age of 13 were those who most reported not having used contraceptives (21.4%, n=3). As the age of first sexual activity increases, the percentage of adolescents using contraceptives also increases. Contraceptives were used by the majority of individuals who initiated sexual life at the 16 and 17 years old and by all those who had their first sexual intercourse at the age of 18 or 19 years old. Condoms were the contraceptive method chosen by 91% (n=193) of the respondents in the first sexual intercourse, while 6.6% (n=14) chose condoms and pills, and 2.4% (n=5) other methods (1.4%, n=3 chose pills; 0.5%, n=1 chose condoms and the morning-after pill; and 0.5%, n=1 chose only the morning-after pill). The adolescents' answers to the question: Why you did not use a contraceptive method in your first sexual intercourse? Were coded after analysis in: *Unavailability of contraceptive methods* (55%, n=11 There wasn't any available at the time, It wasn't expected, it happened and I wasn't prepared, *The condom was in bad shape and we didn't have another and wanted to do it*); *False beliefs* (20%, n=4 *I was pretty young so it wouldn't be a problem, It wasn't necessary because my boyfriend used*

*interrupted coitus; It wasn't necessary, it was the first time); and Other reasons (25%, n=5, I had no knowledge about contraceptive methods; Inexperience; I don't like it).* The frequency the respondents had sexual intercourse varied from zero (11.6%, n=20) to six times a week (2.9%, n=5) (Table 2).

**Table 2** - Frequency of sexual relationships according to gender

Frequency	Both genders	Girls	Boys
	N (%)	N (%)	N (%)
Not right now	20 (11.6)	10 (11.2)	10 (12.1)
Less than once a month	53 (30.8)	22 (24.7)	31 (37.3)
Twice a month	7 (4.1)	3 (3.4)	4 (4.8)
Three times a month	9 (5.2)	6 (6.7)	3 (3.6)
Once a week	25 (14.5)	12 (13.5)	13 (15.7)
One/two times a week	4 (2.3)	3 (3.4)	1 (1.2)
Twice a week	29 (16.9)	17 (19.1)	12 (14.5)
Three times a week	14 (8.1)	8 (9.0)	6 (7.2)
Five times a week	6 (3.5)	5 (5.6)	1 (1.2)
Six times a week	5 (2.9)	3 (3.4)	2 (2.4)
<b>Total</b>	<b>172</b>	<b>89</b>	<b>83</b>
Did not answer	26	17	9
Just once	2	2	0
It depends	18	3	15
Average	2	2	0
Infrequently	20	14	6

The percentage of girls who reported no intercourse or less than once a month is below that of boys; the percentage of girls who have intercourse more than one time per week is higher than that of boys (Table 2). We cannot, however, state there is an association between gender and frequency of sexual intercourse ( $U=3190.00$ ,  $p=0.12$ ). We concluded that younger and older adolescents do not differ in relation to the frequency of sexual relationships ( $U=2955.50$ ,  $p=0.94$ ).

Most of the sexually active respondents (94.7%, n=198) reported the use of contraceptives, of which condoms were the most used (68.7%, n=136 vs. 17.7%, n=35 used pills); 12.1%, n=24 used condoms and pills; and 1.5%, n=3 used other methods). Girls did not differ from boys in relation to the use of contraceptives ( $\chi^2=0.02$ ,  $p=0.90$ ). Age and school grade are not associated with the use of contraceptive methods either ( $\chi^2=0.61$ ,  $p=0.44$  and  $\chi^2=0.63$ ,  $p=0.73$ , respectively).

The number of sexual partners varied from one to nine, while the majority (62%, n=137) reported only one partner. Boys and girls significantly differ in relation to the number of sexual partners ( $U=3979.50$ ,  $p=0.000$ ), which is higher in the case of boys. Most of the girls (74.4%, n=93) had only one partner and none of them had had more than three partners (18.4%, n=23 had two partners and 7.2% n=9 had three). Boys reported from one partner (45.8%, n=44) to nine (1.0%, n=1) partners, (24.0% n=23 had two partners, 12.5%, n=12, three; 5.2%, n=5 had four; 6.2%, n=6 five; 3.1%, n=3 had seven and 2.1%, n=2, eight). Younger and older adolescents did not differ in relation to the number of sexual partners ( $U=4321.50$ ,  $p=0.21$ ).

Five (2.1%) of the respondents who had already begun sexual life reported they had been affected by an STI. All those reporting this occurrence were girls. One of them received no care, one did not answer the question, and the other three were treated by a gynecologist or by the family doctor. Three adolescents (the other two did not answer the question) informed the partner and two (66.7%) of the partners also received care.

A total of 2.2% (n=5) of the respondents confirmed the occurrence of a pregnancy. Of those who confirmed the occurrence, 80% (n=4) were girls and were either 15 years old (20%, n=1), 16 (20%, n=1) or 18 years old (40%, n=2). The age they become pregnant is unknown because this question was not included in the questionnaire. The boy who reported pregnancy was 19 years old. Four of those who confirmed a pregnancy, reported they had an abortion (*aborted, laid it aside, the girl aborted and the only option I had was to abort in Spain, I went with my boyfriend*) and only one girl answered *I got a pregnancy test and went to see a doctor*; this information does not clarify whether she aborted or opted to have the baby.

In relation to how frequently they have a doctor's appointment to monitor their health, 84.7% (n=199) of the adolescents who had already initiated sexual life never attended a family planning consultation. Most of those who had attended a consultation went to the health unit (88.2%, n=30) and the remainder went either to a maternity hospital (8.8%, n=3) or a unit providing care specifically to adolescents or to a health center (2.9%, n=1). Gender is statistically correlated with attending family planning consultations ( $\chi^2=33.10$ ,  $p=0.000$ ); girls are those who most frequently attend such consultations (28%, n=35 vs. 0.9% n=1 boys). There is no relationship between the age of the participants and attending family planning consultations ( $\chi^2=0.11$ ,  $p=0.74$ ) or with school grade ( $\chi^2=1.30$ ,  $p=0.52$ ).

We also concluded that seeking counseling on sexual activity with health professionals is not a common practice among the participants; only 11.7% (n=26) reported having received guidance from a nurse and 21.8% (n=49) from a physician. Girls significantly differ from boys in the search for counseling with a nurse ( $\chi^2=9.60$ ,  $p=0.002$ ); girls are those who most frequently seek these professionals (17.9%, n=21, vs. 4.7%, n=5 boys). Younger and older adolescents differ in the search for counseling with a nurse ( $\chi^2=5.95$ ,  $p=0.015$ ); this behavior was most reported by younger adolescents (20.3%, n=12, vs. 8.5%, n=14 older adolescents). School grade is associated with seeking out a nurse ( $\chi^2=8.80$ ,  $p=0.012$ ), while students from the 10<sup>th</sup> grade are those who most frequently look for such guidance (23.1% n=12 from the 10<sup>th</sup> grade vs. 8.8%, n=9 from the 11<sup>th</sup> grade and 7.1%, n=5, from the 12<sup>th</sup> grade).

Girls also significantly differ from boys in the search for counseling with a physician ( $\chi^2=25.87$ ,  $p=0.000$ ), while girls are those who most frequently seek the counseling of these professionals (35.3%, n=41, vs. 7.3%, n=8, boys). There are no differences between older and younger adolescents in

relation to this type of counseling ( $\chi^2=2.06$ ,  $p=0.15$ ) or in relation to school grade ( $\chi^2=0.26$ ,  $p=0.88$ ).

Most of the adolescents (97.9%,  $n=652$ ) report knowledge concerning the risks to which they are exposed when they have sexual intercourse without a condom. The analysis of the adolescents' answers to the request *Mention the risks to which you are exposed when having sexual intercourse without condoms* resulted in eight categories: *Diseases and pregnancy* (38.6%,  $n=237$ ), *STI and pregnancy* (32.5%,  $n=199$ ), *STI* (11.5%,  $n=71$ ), *AIDS* (8.9%,  $n=55$ ), *Diseases* (3.4%,  $n=21$ ), *AIDS and pregnancy* (2.4%,  $n=15$ ), *Pregnancy* (1.6%,  $n=10$ ) and *Other risks* (1.1%,  $n=7$ ). In the last category, answers such as *Severe diseases and infections*, *AIDS or infections*, *Severe or not so severe diseases*, *Many and varied risks*, *Severe risks that can lead to death* were included. We can state that female and male adolescents significantly differ in relation to knowledge concerning the risks of engaging in a sexual relationship without using condoms (Fisher's Exact Test,  $p=0.005$ ). Boys are those who most frequently acknowledge lack of knowledge concerning such risks (4.1%,  $n=11$ , vs. 0.8%,  $n=3$  girls). No statistically significant differences were found between age and knowledge concerning the risks of sexual intercourse without condoms ( $\chi^2=0.15$ ,  $p=0.69$ ), or school grade ( $\chi^2=3.20$ ,  $p=0.20$ ).

Most respondents confirmed possessing knowledge concerning the risks of having sexual intercourse without taking pills (94.7%,  $n=620$ ). The risks indicated by the respondents were grouped into three categories: *Pregnancy* (95.7%,  $n=535$ ), *Diseases and pregnancy* (2.3%,  $n=13$ ) and *Other risks* (2%,  $n=11$ ). The last category included answers such as *STI*, *Severe diseases and infections*, *STI and pregnancy* and *AIDS*.

Female and male adolescents differ significantly in relation to knowledge concerning the risks of becoming sexually involved without taking pills ( $\chi^2=22.08$ ,  $p=0.000$ ); again boys are those who most frequently reported not being informed regarding this (10.5%,  $n=27$ , vs. 2%,  $n=8$ , girls). No statistically significant differences were found between age or school grade and knowledge concerning the risk of engaging in sexual intercourse without taking pills ( $\chi^2=0.08$ ,  $p=0.77$ ;  $\chi^2=1.08$ ,  $p=0.58$ ).

There are significant differences between having sexual intercourse and alcohol consumption ( $\chi^2=36.96$ ,  $p=0.000$ ); the larger percentage of adolescents who had already initiated sexual life are among those who consume alcohol (48.8%,  $n=140$  vs. 26%,  $n=100$  do not drink). There is also a significant relationship between the commencement of sexual life and smoking ( $\chi^2=47.99$ ,  $p=0.000$ ); the largest percentage of sexually active adolescents was among individuals who smoke (68.1%,  $n=64$  vs. 30.7%,  $n=30$  did not smoke).

## DISCUSSION

Evaluating the sexual health of adolescents is an essential component of care provided to this population in order

to heed the considerable risks that their sexual behavior represents to their health.

The commencement of sexual life and the percentage of adolescents who had already initiated sexual life according to gender varies considerably from country to country, which reflects cultural, social, religious and educational differences as can be inferred given the results of a study<sup>(10)</sup> that indicates that between 15% and 75% of 15 years old individuals are already sexually active, while this occurrence is more frequent among boys in most of the studied countries.

In this study, 35.8% of the adolescents reported they had already initiated sexual relationships, while this percentage is significantly higher among boys. Comparing this study's results and those of other Portuguese studies, we verified that these are similar in relation to most of the adolescents not having initiated sexual life and among those who already had, the majority are boys<sup>(11-12)</sup>. Girls initiated sexual life significantly later than boys. This result corroborates the results obtained in previous studies<sup>(10,12)</sup>, which also verified that girls initiate sexual life later than boys.

According to what was expected in relation to autonomy, search for sexual identity and greater freedom, the percentage of older adolescents who already had sexual relationships is significantly higher than that of younger adolescents; these results coincide with those of previous studies<sup>(9,11-12)</sup>.

The increased use of condoms among adolescents accounts for less unprotected first-time sexual intercourse. Condoms were the contraceptive most used in first sexual intercourse; no significant differences were found in relation to gender. It is a matter of concern that 10.9% of the respondents did not use any contraceptive method in their first sexual intercourse, since risky sexual behavior constitutes a threat to the physical and social health of adolescents. Thirteen years old individuals were those who most reported not having used a contraceptive method in their first experience with intercourse. The older they initiated sexual life, the higher the percentage of individuals using contraceptive methods in their first sexual encounter. These results confirm what other authors report concerning the early commencement of sexual activity, that is, it is neither associated with a consistent sexual education nor with knowledge of physiology or the biological aspects of sex or reproduction. It is in fact related to unprotected sex in the first experience of sexual intercourse<sup>(13)</sup>.

Health professionals are responsible for addressing the risks of sexual intercourse without the use of contraceptive methods and such guidance should be initiated before the first time of intercourse occurs so that adolescents know to correctly use contraceptive methods. It is important that health professionals address the contraception issue in a consistent and explicit manner in consultations held with adolescents.

The frequency of relationships among those who affirm being sexually active varied between less than one per

month to six per week, while the girls reported the highest frequency. Our results are congruent with those of other researchers who also reveal that girls report more frequent sexual relationships<sup>(14)</sup>.

Most of the sexually active adolescents report the use of contraceptives. The most used frequently used method is the condom and only 12.1% of the respondents use both condoms and pills. However, given the risk of STIs, the fact that 19.2% of the participants do not use condoms during sexual relationships is a matter of concern. The conclusion is that there are no differences among genders or school grade regarding the use of contraceptives. Comparing these results with those of other studies<sup>(9-12)</sup> inquiring about the use of contraceptives in their most recent experience of intercourse, we verified that they are consonant in regard to the fact that most respondents used contraceptives and to the fact that condoms are the most used method.

The high rate of contraceptive use found in this study in comparison to that found in other studies might be related to the fact that the respondents were all students. As reported by other authors<sup>(15-16)</sup>, those who study and have educational goals tend to use contraceptives more frequently.

The risk of STIs significantly increases with a new sexual partner and with an increased number of partners. The number of sexual partners in this study varied from one to nine, while most reported only one partner. Boys reported the highest number of partners; most girls reported only one partner and none of them more than three. Even though most boys reported only one partner, some reported up to nine partners. No differences were found in relation to the number of partners according to age. These results are in agreement with those of other studies reporting that most or almost all the female respondents were monogamous, that is, a high number of participants had had only one partner<sup>(9)</sup>, a behavior most common among girls<sup>(9,14)</sup>. However, they also differ from studies that report that the number of sexual partners increases with age<sup>(9)</sup>.

Only 2.1% of the adolescents, all girls, reported a STI, though the low reported rate of STIs might be related to non-detected infections. As reported by the World Health Organization<sup>(6)</sup> (WHO), adolescents may not seek health care when they fail to realize they contracted an STI, for feeling ashamed or for not having access to the services. Another reason that may explain such results is the high rate of condom use.

In relation to the occurrence of pregnancy, 2.2% of the respondents confirmed its occurrence. The low incidence of pregnancies may be related to the high percentage of adolescents who reported the use of contraceptive methods and to the fact they were students and probably had educational and professional goals that lead them to postpone pregnancies<sup>(2)</sup>. Among those who reported a pregnancy, 80% reported abortions, while one of them did not provide explicit information as to whether she had the child or aborted. Most of the respondents opted for abortion and it is probably due to the fact that the pregnancy was

neither wanted nor planned. As other authors<sup>(3)</sup> state, most of the unwanted pregnancies during adolescence are resolved likewise.

It is important that sexually active adolescents receive health care and guidance. This study revealed that most of the sexually active adolescents did not attend family planning consultations nor sought counseling concerning sexual health from nurses and physicians. These results are of concern and lead to the conclusion that adolescents do not attend routine health consultations or if, they do, health professionals do not take the opportunity to talk about sexual health. Aware that adolescents seldom seek health services<sup>(2)</sup>, both health facilities and health professionals need to be pro-active, finding means to encourage adolescents to seek health services instead of health professionals passively waiting for them to seek those services. Moreover, all consultations with adolescents should be used to ask about their sexuality and provide individualized education. Finally, nurses in health centers should be involved in health education actions addressing sexuality in schools<sup>(8)</sup>.

Most of the adolescents reported knowledge concerning the risks to which they are exposed when engaging in a sexual intercourse without condoms. However, 28.9% of them did not associate the use of condoms with protection against STIs and pregnancy. In relation to the risks of sexual engagement without taking pills, most also reported knowledge of such risks but 4.3% still associated the use of pills to protection against infections and diseases. There are significant differences between genders in relation to knowledge concerning risks of a sexual involvement without condoms and pills, while boys are those who most acknowledge a lack of knowledge regarding the risks. This result seems to suggest that the traditional idea that girls are those who need to protect themselves still persists.

The conclusion is that the largest percentage of adolescents who had already initiated sexual life is among those who consume alcohol and smoke. As reported by other authors, the consumption of alcohol may facilitate engaging in sexual activities<sup>(17)</sup> and the commencement of sexual life is associated with alcohol consumption and smoking<sup>(18)</sup>.

## CONCLUSION

Given the results presented, we deem it important that nurses help adolescents to develop skills that enable them to negotiate levels of intimacy and contraceptive measures in a relationship. Related goals are to promote critical thinking, facilitate decision-making and improve problem-solving ability, increase their self-confidence and ability to make informed choices. One result might be delaying the start of sexual activity until they are sufficiently mature to protect themselves from HIV and other STIs and unwanted pregnancies. It is also crucial to motivate them to monitor their sexual health and inform them about health facilities and units where there is free delivery of care specific to adolescents.

## REFERENCES

- World Health Organization (WHO); United Nations Children's Fund (UNICEF). Programming for Adolescent Health and Development. "What should we measure and how?" Risk and protective factors affecting adolescent health and development. Geneva; 2000.
- Bekaert S. Adolescents and sex: the handbook for professionals working with young people. Oxford: Radcliffe; 2005.
- United Nations Population Fund. State of world population 2003 making 1 billion count: investing in adolescents' health and rights, 2003 [Internet]. New York; 2003 [cited 2006 Jul 25]. Available from: [http://www.unfpa.org/swp/2003/pdf/english/swp2003\\_eng.pdf](http://www.unfpa.org/swp/2003/pdf/english/swp2003_eng.pdf)
- United Nations Children's Fund (UNICEF). Young people and HIV/AIDS opportunity in crisis. Programme on HIV/AIDS and WHO. Geneva: United Nations Children's Fund, Joint United Nations; 2002.
- Durex. Global sex survey [Internet]. 2005 [cited 2006 Jan 26]. Available from: <http://www.durex.com/uk/globalsexsurvey/2005results.asp>
- World Health Organization (WHO). Contraception: issues in adolescent health and development. Geneva: Department of Child and Adolescent Health, Development and Department of Reproductive Health and Research; 2004.
- Borges ALV. Relações de gênero e iniciação sexual de mulheres adolescentes. *Rev Esc Enferm USP*. 2007;41(4):597-604.
- Ferreira MRS, Paúl C, Amado J. Sexual behaviour of high-school adolescents. In: Proceedings of the 10<sup>th</sup> International Nursing Conference; 2006, Nov. 22-25; Albacete. Albacete: Instituto de Salud Carlos III, Unidad de Coordinación y Desarrollo de la Investigación en Enfermería; 2006. p. 41-3. Available from: <http://www.isciii.es/htdocs/redes/investen/documentos/encuentroX.pdf>
- Vesely SK, Wyatt VH, Oman RF, Aspy CB, Kegler MC, Rodine S, et al. The potential protective effects of youth assets from adolescent sexual risk behaviors. *J Adolesc Health*. 2004;34(5): 356-65.
- Currie C, Roberts C, Morgan A, Smith R, Settertobulte W, Samdal O, et al. Young people's health in context: Health Behaviour in School-aged Children (HBSC) study: international report from the 2001/2002 survey. Copenhagen: WHO Regional Office for Europe; 2004.
- Rodrigues V, Carvalho A, Gonçalves A, Carvalho G. Situações de risco para a saúde de jovens adolescentes [Internet]. 2007 [citado 2008 mar. 11]. Disponível em: <http://repositorium.sdum.uminho.pt/bitstream/1822/6651/1/Situacoes%20de%20risco.pdf>
- Matos MG. Equipa do Projecto Aventura Social e Saúde. A saúde dos adolescentes portugueses (quatro anos depois): relatório português do estudo HBSC 2002. Lisboa: FMH; 2003.
- Gómez MA, Sol A, Cortés MJ, Mira JJ. Sexual behaviour and contraception in people under the age of 20 in Alicante, Spain. *Eur Contracept Reprod Health Care*. 2007;12(2):125-30.
- Sikkema KJ, Brondino MJ, Anderson ES, Gore-Felton C, Kelly JA, Winett RA, et al. HIV risk behavior among ethnically diverse adolescents living in low-income housing developments. *J Adolesc Health*. 2004;35(2):141-50.
- Ferreira MRS, Paúl C, Amado J. Comportamentos sexuais de adolescentes do ensino secundário. *Rev Assoc Portuguesa Enferm Obstetras*. 2006;7(1):50-3.
- Schutt-Aine J, Maddaleno M. Sexual health and development of adolescents and youth in the Americas: program and policy implications. Washington: PAHO; 2003.
- Institute of Alcohol Studies. Adolescents and alcohol: IAS factsheet [Internet]. 2007 [cited 2007 Sept 2]. Available from: <http://www.ias.org.uk/resources/factsheets/adolescents.pdf>
- Parkes A, Wight D, Henderson M, Hart G. Explaining associations between adolescent substance use and condom use. *J Adolesc Health*. 2007;40(2):180.e1-18.