Life styles in adolescence: sexual behavior of Portuguese adolescents*

RESUMO
Estudos recentes têm demonstrado que adolescentes iniciam a vida sexual cada vez mais cedo, sem contudo possuírem uma educação sexual consistente. Os objetivos 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 proactivos tentando captar os adolescentes.

DESCRITORES
Adolescente
Educação sexual
Estilo de vida
Conducta sexual
Rol de la enfermera

Maria Margarida da Silva Reis dos Santos Ferreira¹, Maria Constança Leite de Freitas Paúl Reis Torgal²

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 pro-active in trying to approach adolescents.

DESCRIPTORS
Adolescent
Sex education
Life style
Sexual behavior
Nurse’s role

Maria Margarida da Silva Reis dos Santos Ferreira¹, Maria Constança Leite de Freitas Paúl Reis Torgal²

Received: 01/15/2009
Approved: 09/06/2010

*Extracted from the dissertation “Estilos de vida na adolescência: de necessidades em saúde à intervenção de enfermagem”, Institute of Biomedical Sciences Abel Salazar, University of Porto. ¹RN, Specialist in Child and Pediatric Health Nursing. MSc and PhD in nursing. Full Professor, College of Nursing. Porto, Portugal. mrs@esenf.pt ²Psychologist. MSc and PhD in Biomedical Sciences. Full Professor at the Institute of Biomedical Sciences Abel Salazar, University of Porto, Porto, Portugal. constancapaul@netcabo.pt

www.scielo.br/reeusp  Portuguese / English:
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.

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. Adolescents seek to construct their identity integrating feelings, needs and desires.

Adolescence is undoubtedly a time when many individuals initiate sexual activity. Various studies have shown that both female and male adolescents are currently initiating sexual relationships earlier as 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 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 (STIs).

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. 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 STIs.

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

Even though the sexual behavior of sexually active adolescents has improved in recent years as indicated by the greater use of contraceptive methods, 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.

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 21st century because these are causes of health, social and economic problems relevant to adolescents and society in general.
**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 classroom 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 10th grade, 280 (41.2%) the 11th grade and 162 (23.8%) the 12th 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 old (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: 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 the age they initiated sexual activity (c2=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 (c2=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>
<thead>
<tr>
<th>Age at the 1st sexual relationship</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 years old</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>14 years old</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>15 years old</td>
<td>33</td>
<td>26.2</td>
</tr>
<tr>
<td>16 years old</td>
<td>48</td>
<td>38.1</td>
</tr>
<tr>
<td>17 years old</td>
<td>19</td>
<td>15.1</td>
</tr>
<tr>
<td>18 years old</td>
<td>5</td>
<td>4.0</td>
</tr>
<tr>
<td>19 years old</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Total</td>
<td>126</td>
<td>100</td>
</tr>
</tbody>
</table>

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

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 (c2=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 did you 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

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Both genders</th>
<th>Girls (%)</th>
<th>Boys (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not right now</td>
<td>20 (11.6)</td>
<td>10 (11.2)</td>
<td>10 (12.1)</td>
</tr>
<tr>
<td>Less than once a month</td>
<td>53 (30.8)</td>
<td>22 (24.7)</td>
<td>31 (37.3)</td>
</tr>
<tr>
<td>Twice a month</td>
<td>7 (4.1)</td>
<td>3 (3.4)</td>
<td>4 (4.8)</td>
</tr>
<tr>
<td>Three times a month</td>
<td>9 (5.2)</td>
<td>6 (6.7)</td>
<td>3 (3.6)</td>
</tr>
<tr>
<td>Once a week</td>
<td>25 (14.5)</td>
<td>12 (13.5)</td>
<td>13 (15.7)</td>
</tr>
<tr>
<td>One/two times a week</td>
<td>4 (2.3)</td>
<td>3 (3.4)</td>
<td>1 (1.2)</td>
</tr>
<tr>
<td>Twice a week</td>
<td>29 (16.9)</td>
<td>17 (19.1)</td>
<td>12 (14.5)</td>
</tr>
<tr>
<td>Three times a week</td>
<td>14 (8.1)</td>
<td>8 (9.0)</td>
<td>6 (7.2)</td>
</tr>
<tr>
<td>Five times a week</td>
<td>6 (3.5)</td>
<td>5 (5.6)</td>
<td>1 (1.2)</td>
</tr>
<tr>
<td>Six times a week</td>
<td>5 (2.9)</td>
<td>3 (3.4)</td>
<td>2 (2.4)</td>
</tr>
<tr>
<td>Total</td>
<td>172</td>
<td>89</td>
<td>83</td>
</tr>
</tbody>
</table>

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 10th grade are those who most frequently look for such guidance (23.1% n=12 from the 10th grade vs. 8.8%, n=9 from the 11th grade and 7.1%, n=5, from the 12th 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...
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 (χ²=0.15, p=0.69), or school grade (χ²=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 using pills (χ²=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 (χ²=0.08, p=0.77; χ²=1.08, p=0.58).

There are significant differences between having sexual intercourse and alcohol consumption (χ²=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 (χ²=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\(^1\) 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\(^1\). Girls initiated sexual life significantly later than boys. This result corroborates the results obtained in previous studies\(^2\)\(^3\)\(^4\)\(^5\), 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\(^6\)\(^7\)\(^8\)\(^9\).

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\(^1\).

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
and it is probably due to the fact that the pregnancy was
or aborted. Most of the respondents opted for abortion
to provide explicit information as to whether she had the child
nancy, 80% reported abortions, while one of them did not
pro-actively, finding means to encourage adoles-
cents to seek health services instead of health profession-
als passively waiting for them to seek those services. More-
over, all consultations with adolescents should be used to
ask about their sexuality and provide individualized educa-
tion. Finally, nurses in health centers should be involved in
health education actions addressing sexuality in schools[10].

Most of the adolescents reported knowledge concern-
ing 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 protec-
tion 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 with-
out condoms and pills, while boys are those who most ac-
knowledge 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 adoles-
cents 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 engag-
ing in sexual activities[13] and the commencement of sexual
life is associated with alcohol consumption and smoking[14].

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 think-
ing, facilitate decision-making and improve problem-solving
ability, increase their self-confidence and ability to make in-
formed 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 pregnan-
cies. 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


