Adolescent knowledge and attitudes regarding emergency contraception

CONHECIMENTOS E ATITUDES DOS JOVENS FACE À CONTRACEPÇÃO DE EMERGÊNCIA

CONOCIMIENTOS Y ACTITUDES DE LOS JÓVENES FRENTE A LA CONTRACEPCIÓN DE EMERGENCIA

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ABSTRACT
This cross-sectional study was conducted among 753 students (10th and 12th graders) from the Douro Region (Northern Portugal) to identify the information that adolescents have about emergency contraception (postcoital contraception), as well as their attitudes. Data collection was performed using a three-part questionnaire, divided as follows: the 1st part consists of 10 questions regarding sociodemographic characteristics; the 2nd part consists of 22 questions about knowledge of sexuality/emergency contraception; and the 3rd part has eight questions about the adolescent’s attitude regarding emergency contraception. Results indicate there is limited knowledge (10.5%). The youths’ attitude is generally in favor of emergency contraception. Girls in the 12th grade are the students with the broadest effective knowledge.

KEY WORDS

RESUMO
Trata-se de um estudo descritivo e transversal, numa amostra de 753 alunos do 10º e 12º ano da região do Douro (Norte de Portugal), com o objetivo de conhecer a informação e a atitude dos jovens relativamente à contracepção de emergência (an-ticoncepcional pós-coito). Como instrumento de coleta de dados, utilizou-se um questionário dividido em 3 partes, em que na 1ª constam 10 questões de caracterização sócio-demográfica, na 2ª, 22 questões acerca da informação e conhecimentos sobre a sexualidade/contracepção de emergência, e uma 3ª parte, que engloba 8 questões acerca da atitude face à contracepção de emergência. Os resultados globais apontam para um conhecimento efetivo pequeno (10,5%). A atitude, entre os jovens, é genericamente favorável à contracepção de emergência. Os alunos que apresentam mais conhecimento efetivo são os do 12º ano de escolaridade e os pertencentes ao sexo feminino.

DESCRITORES

DESCRIMPEN
Se trata de un estudio descriptivo y transversal, en una muestra de 753 alumnos del 10º y 12º año de la región del Douro (Norte de Portugal), con el objetivo de conocer la información y la actitud de los jóvenes relativa a la contracepción de emergencia (anti-conceptivo después del coito). Como instrumento de recolección de datos, se utilizó un cuestionario dividido en 3 partes, en que en la 1ª constan 10 preguntas de caracterización socio demográfica, en la 2ª, 22 preguntas acerca de la información y conocimientos sobre la sexualidad/contracepción de emergencia, y una 3ª parte, que engloba 8 preguntas acerca de la actitud frente a la contracepción de emergencia. Los resultados globales apuntan para un conocimiento efectivo pequeño (10,5%). La actitud, entre los jóvenes, es genericamente favorable a la contracepción de emergencia. Los alumnos que presentan más conocimiento efectivo son los del 12º año de escolaridade y los pertenecientes al sexo femenino.

KEY WORDS

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INTRODUCTION

In Portugal, Law 120/99 of August 11 determined sexual education as obligatory in all educational institutions. From the text of this Law, stands a vision almost exclusively biologic about sexuality, a merely mechanic and technical stance for family planning, condom is chosen as a panacea against all evilness by mechanic means and of technical support for using contraceptive methods, capable of promoting a pure genitality but not the experience of responsible and respectful sexuality[2].

The stand of the Permanent Council of the Portuguese Episcopal Conference does not deviate from this line of thought, when in their release about sexual education at schools it is possible to read that the mechanistic concern of effective results underestimated the cultural and ethical framework of matters, a serious gap in an age ruled by a constant appeal to sex; this is even more serious when we know that it is not only ignorance, but more importantly, the licentiousness of manners, contributing to the proliferation of abortion[2].

We believe therefore that the problem of teenage pregnancy cannot be focused only on the morning-after pill (emergency contraception/post-coital contraceptive). It is necessary to understand the reasons why there are so many cases of young girls getting pregnant. The first answer that comes to mind is the lack of sexual education and family planning mechanisms. But it is true that one of the first countries to liberalize abortion and disseminate sex education at schools -the United Kingdom-, has the highest rates of teenage pregnancy[3].

The fact is that culture to facilitate or even encourage irresponsible behavior such as casual unprotected sex in the name of a free and universal morning-after pill is capable of producing exactly the opposite effect to what was intended. It was found, between 1975 and 1991, that there is a positive correlation between the increase in condom use at first intercourses and pregnancy among adolescents. Thus it is argued that female adolescents who start having sex before 16 years of age are three times more likely to become pregnant than those who wait longer[3].

Hence there is a question regarding the extent to which sex education targeted to delay sexual intercourse may be the best method for reducing teenage pregnancy. As a matter of fact, it was verified that educational programs that aimed at delaying sexual intercourse were able to significantly reduce teenage pregnancy. Therefore, it can be recommended, since sexual abstinence proved its effectiveness. This fact is well accepted in the U.S., where it is common to find medical articles encouraging health professionals to recommend abstinence to young women and informing them about how to live without a sexual relationship.

They also indicate the safest way for preventing sexually transmitted diseases: abstinence or fidelity. Only after these recommendations appears another way of reducing the risk of transmission: to limit the number of partners and using condoms[4-5].

Condom use reduces the risk for contamination, but does not eliminate it. The same applies for the purposes of contraception, which the General Health Board in its Bulletin Reproductive health: family planning, reports an efficacy for male condoms of 5-10 pregnancies per 100 women/year, being known that these numbers are always higher if we intend to evaluate its effectiveness[6]. Hence, there is a failure rate of 10 to 20% in real use conditions[5]. Furthermore, the failure rates for contraceptive methods in current use, such as the pill and condoms are constantly higher in adolescents compared with those of other age groups. Besides age, the failure rate of the method also increases when the period of use is less than one year[7]. These failures that result in (unwanted) pregnancies, will later, very often, lead to many cases of abortion.

The concept argued by the first birth controllers that the dissemination of contraception would eliminate abortion, proved to be totally wrong. Statistics show that in countries where contraception is highly widespread (Italy, Spain, France), the number of abortions does not decrease[6].

At the Inquiry of Fertility and Family 1997, it was found a considerable incidence (6.4%) of voluntary pregnancy termination (IVG in Portuguese). The IVG was associated with older women and those who said they used some kind of contraception, and contrary to what might be imagined, the IVG is not a substitute for contraception, but emerges as a last option to correct errors - inherent of contraceptives or regarding their in-correct use[8], therefore, abortion cannot be fought using contraception[10].

All these data must be broadly revealed so that young people can make responsible and well-founded choices. Abortion should occur not by coercion or word and data manipulation, but because of the validity and truth of the defended values[11-12].

We must therefore redefine sexual education and give it a vision of education for sexuality whose ultimate goal is not only the prevention (of pregnancy), but the person as a whole. Young people should be helped to grow, hence information should not be distorted and transmission should occur considering to the target public[13-14]. Taking the referred concerns into consideration, the present article evaluates the knowledge of high school adolescents in a region of Northern Portugal regarding emergency contraception, identifying and discussing on the relationship between high school teenagers’ knowledge and their attitude regarding emergency contraception.
METHOD

This is an exploratory cross-sectional study. The population consisted of 753 students attending the 10th and 12th grade at six secondary schools in the region of Douro (northern Portugal). The option for this population is related to the year of starting and graduation (pre-university) from secondary education.

Data collection was performed using a three-part questionnaire, where the 1st set consisted of 10 socio-demographic nature questions, the 2nd set included 22 questions regarding information and knowledge about emergency contraception; and the 3rd party, which included 8 questions about the attitude facing emergency contraception. In order to measure the adolescents' knowledge about emergency contraception, and for those who said they knew or had some information about emergency contraception, the knowledge was assessed using 4 open and 1 closed questions, as follows: if you have information, how do you think it works, how often should it be taken (in hours or days), what are the circumstances in which you can use emergency contraception; do you know any contraindication for emergency contraception; in your opinion, emergency contraception is completely identical to the regular use of contraceptives (taken daily). The first four open questions, non-multiple choice, enable to establish, in fact, the knowledge of young people relating to emergency contraception, as neither clues for solution were provided, nor it was possible to mark a cross by chance and, eventually, hit the right answer. These five questions were assigned a score that makes the total of 100 points, where scores equal to or greater than 50, mean individuals with enough knowledge, and lower scores reflect individuals with unsatisfactory knowledge or without any knowledge.

Regarding ethical procedures, an official request was made in writing to the Executive Councils of the schools involved in the study, and a previous meeting was held to inform them about the objectives of the study, ensuring confidentiality of results and the anonymity of the respondents. The study was authorized by the National Commission for Data Protection, register 02.05.06 January 18, 2005.

As regards the processing of the data interpretation, we initially used univariate analysis (descriptive statistics), through absolute frequencies, measures of central tendency (average) and dispersion measures (standard deviation); and for testing hypotheses, we used statistical inference, using the chi-square test with Yates' correction or Fisher's exact test to compare ratios.

RESULTS

Table 1 shows that most participants were females (57.9%; 436 students), and the remaining 42.1% (317 students) were males. The average age is 16.65 years, ranging from 23 years (0.4% - 3 students) to 14 (0.1% - 1 student), being the mode 15 years.

Most of the students attend the 10th grade (61.0%). A large percentage of students (68%) live in rural areas. The vast majority of students live with their parents, in a percentage of 87.1%, whereas 6.8% (51) live with their mother only. Similarly, the overwhelming majority of parents of students are married (90.7%). It should be noticed that there is a considerable number of widows (22) and divorced parents (28), which somehow helps justifying the 51 students who live with their mother only. Most of parents of students live together, with a percentage of 89.8%, and most of students have younger siblings only (37.3%). Meanwhile, the percentage of those who have only older siblings is very close: 35.9%.

When students were asked if they used to talk with parents about these issues (Table 2), only 129, which correspond to a percentage of 17.1%, reported speaking with parents about sexuality/contraception. The vast majority does not talk (38.1%), or talks only sometimes (44.8%). Those who reported not talking with parents about sexuality and contraception (38.1%) or just to talk sometimes (44.8%), totaling 624 students, mentioned reasons such as: it is not something you discuss with your parents (33.81%) and I feel embarrassed/afraid (32.05%). When asked if they knew what emergency contraception means, the majority said yes in a percentage of 61% (459 students), 22.4% said they had some information and only 16.6% (125 students) assumed their lack of knowledge. Regarding knowledge on emergency contraception, the overwhelming majority of students showed not to have effective knowledge in a percentage of 89.5%, with only 10.5% of students showing effective knowledge.
Regarding attitude of young people facing emergency contraception, most students (53.1%) are receptive or even very receptive (28.2%). Therefore, we may conclude that there is a favorable attitude toward emergency contraception among the majority of the population, with a percentage of 81.3%, and only an 18.8% shows an unfavorable attitude. Analyzing the relationship between effective knowledge about emergency contraception and the gender of the students, we can verify that a better knowledge is found in female students, in a percentage of 8.1%, when male students represent only a 2.4%. This difference is statistically significant.

Table 3 - Relationship between gender of students and effective knowledge - region of Douro (northern Portugal) - 2006

<table>
<thead>
<tr>
<th>Sex</th>
<th>Effective Knowledge</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>χ²</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>Without</td>
<td>375</td>
<td>49.8</td>
<td>61</td>
<td>8.1</td>
<td>12.635</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>With</td>
<td>299</td>
<td>39.7</td>
<td>18</td>
<td>2.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

About the relationship between year of school attended and effective knowledge, as it would be expected, most of effective knowledge can be found in students attending 12th year of schooling, with a percentage of 7.4%, being the difference statistically significant ($\chi^2 = 36.121$ and $p < 0.000$). Regarding the students’ place of residence, it was not verified any relationship with effective knowledge ($\chi^2 = 4.173$ and $p = 0.124$). Same way, it was also impossible to verify a connection between co-residence and attitude facing emergency contraception ($\chi^2 = 0.220$ and $p = 0.639$). Exist verifiable relationship between co-residence and effective knowledge, being possible to state that among those students who have effective knowledge, most of them live with their parents (8.0%), while only 2.5% live with others ($\chi^2 = 8.730$ and $p = 0.003$). It was not verified a relationship between the fact of having siblings (younger or older) and the effective knowledge of students ($\chi^2 = 2.453$ and $p = 0.484$), same way, it was not verified relationship between talking with parents about sexuality/contraception and the effective knowledge. It is noticed, with some surprise, that those students who have a minor percentage of effective knowledge are the same that refer to talk habitually with parents about sexuality/contraception (2.3%).

Table 4 - Relationship between talking with parents about sexuality/contraception and effective knowledge - region of Douro (northern Portugal) - 2006

<table>
<thead>
<tr>
<th>Effective Knowledge</th>
<th>Usually talk with parents</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>χ²</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Without</td>
<td>297</td>
<td>39.4</td>
<td>40</td>
<td>5.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>With</td>
<td>265</td>
<td>35.2</td>
<td>22</td>
<td>2.9</td>
<td>4.114</td>
<td>0.128</td>
</tr>
</tbody>
</table>

Regarding the collection of information about emergency contraception, most referred fonts were: friends and colleagues with 57%, magazines or books with 50.5%, TV and radio with 40.2%, professors with 32.1%, health professionals with 22.7%, parents with 21.4% and Internet with 16.9%.

Data shown in Table 5, referred to the relationship between the knowledge about emergency contraception and the attitude regarding it, implies that there is no statistically significant relationship. In both effective-knowledge groups, the higher percentage shows an attitude in favor of emergency contraception. A 71.5% (almost ¾ of population) has a favorable attitude regarding emergency contraception without having an effective knowledge.

Table 5 - Relationship between the attitude regarding emergency contraception and effective knowledge - region of Douro (northern Portugal) - 2006

<table>
<thead>
<tr>
<th>Attitude regarding emergency contraception</th>
<th>Effective knowledge</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>χ²</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favorable</td>
<td>Without</td>
<td>523</td>
<td>71.5</td>
<td>71</td>
<td>9.7</td>
<td>3.705</td>
<td>0.054</td>
</tr>
<tr>
<td>Unfavorable</td>
<td></td>
<td>129</td>
<td>17.6</td>
<td>8</td>
<td>1.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Regarding the existence of sexual intercourse, most of young people who took part of the present study had not started yet with their sexual life (67%). Among those who had (32%), only 18.1% used contraceptive methods all the time. The age of initiation of sexual activity situates at 16 years old the major percentage in females (8.5%), and 14 years old in males (9.8%).

It should be stressed that ¼ (25.2%) of the population ignores or has a wrong idea about the methods used to prevent sexually-transmissible diseases. Also, there are differences in sexual relationship according the gender of students. Therefore, among those who referred not having had
sexual intercourse (68%), the vast majority are females (44.2%). Regarding those who had sexual intercourse (32%), most are males, in a percentage of 18.3%.

Regarding the adoption of behaviors of risk with attitude facing emergency contraception, it is verified that still not having relation between variables ($\chi^2 = 2.673$ and $p = 0.102$), among those individuals who have an unfavorable attitude (14.8%), more than the double (10.5%) makes a systematical use of contraceptive methods. Similarly, regarding the knowledge, although there is no relationship between the systematic use of contraceptive methods and effective knowledge ($\chi^2 = 2.326$ and $p = 0.127$), it is verified that inside the group with effective knowledge (14.9%), more than the double (10.4%) makes a systematical use of contraceptive methods.

In the group of students that referred to have had sexual relationship and have used some contraceptive method (30.3%, 228 students), the most referred methods were: condoms with 88.15% and the pill with 26.75%. When we relate the same variable, but now with the gender of the students, we are able to verify that among the majority of students (68%) that did not have sexual intercourse, 44.2% are female. Among females that had sexual relations, the highest percentage at 16 years old with 8.5%, following the 17 years old, with 6.7%; while among males, the highest percentage is related to those who had sexual relations before 14 years old, with 9.8%, following 15 and 16 years old with a percentage of 8.5%.

Regarding the use of emergency contraception, among those students who have effective knowledge, the vast majority did not use emergency contraception (8.4%). Among those who used emergency contraception, the largest group (more than double) does not have effective knowledge about what emergency contraception is.

**DISCUSSION**

One of the greatest goals to be achieved through this study was to investigate the knowledge that students have about emergency contraception. Initially, the vast majority (83.4%) reported knowing or having some information about emergency contraception. At a second moment, through the assessment of the referred information, we found that only 10.5% of population actually had effective knowledge. It is further concluded that among the few who had effective knowledge, the level of that knowledge was only sufficient because of the achieved score. In addition, within this restricted group (those who have effective knowledge), most of them simply ignore how it works.

This data is identical to the results found in another study in Portugal, about oral emergency contraception, sought by users of various pharmaceutical products (a total of 1075 users), which found that knowledge about the morning-after pill varied according to the item considered (15). Issues of efficacy and drug interaction were those that revealed minor clarification among users. Only, respectively, 41% and 45% responded appropriately. However, the other items of knowledge did not show very high values. In fact, the highest level of knowledge noted, was on the occurrence of side effects (71%). All these results led to insufficient knowledge about emergency contraception.

Also other studies have shown the difference between having heard of or know of the existence of emergency contraception and knowledge about it, or by the way as some British studies show, that is, in spite of the adolescents know of emergency contraception, it was unclear for them the way to get it and how to use it(16). Even more recently, and investigating the knowledge of emergency contraception among women aged 18 to 44 years in California, in a sample of 6209 women it was found that at a first stage, the question *If a woman had unprotected sex, will be there anything she can do within 3 days to prevent pregnancy?*, 51.7% answered yes, 36.5% answered no, and 11.8% did not know(17). In a second stage and for those women who answered yes, was asked this question: *What is she able to do?*. Here, only 73.7% proved to know of emergency contraception. Therefore there was a reversal of percentages, with only 38.2% proving knowledge of emergency contraception against 58.2% who did not succeed.

In this study the effective knowledge was associated with young females, with those attending the 12th grade and with those who cohabitates with parents. It is clear that parents are important in the process of sexual education, of course as the first participants. The uncertainty of the parents or the lack of clarity of their own beliefs in this area contributes to the appearance of a problem in communication. Often, the main reason for the lack of communication is related to the discomfort of parents and the shame they feel when talking about this subject(14). Cohabitation with parents will facilitate that together they can fill some information gaps, overcome taboos on sex education and help young people to have an open relationship with the closest parent.

The attitude facing emergency contraception has proven to be a matter of subjective personal position, which was not based on effective knowledge, because almost ¾ of the population (71.5%) have a favorable attitude to emergency contraception, but has no effective knowledge.

Regarding sources of information mentioned by young people about emergency contraception: first come friends and colleagues with 57% and then the media, such as magazines and books (50.5%), or TV/radio (40.2%), which also occurred in a study in Brazil to assess the knowledge and use of emergency contraception in adolescents, where the main source of information about emergency contraception were friends with 34%(18).
CONCLUSIONS

The great popularity of emergency contraception lies mainly in making possible the anonymity - because it is sold over-the-counter (medical prescription is not needed) and self-administered.

When we realize that this issue is approached (when approached), certainly in most schools, in so crude and simplistic terms, usually when we asked some adolescents what they knew about emergency contraception, the only answer was That is for women to avoid having children! Indeed at a first moment, they did not even know what we were talking about; only when we mentioned the morning-after pill, is that they could adopt a stance.

Therefore, to fill knowledge gaps that were verified in the context of sexuality, even because the source of information was, invariably, friends and colleagues, and these are areas of socialization and coexistence, we cannot only note down the disadvantage that usually in these areas the knowledge about sexuality is incorrect, based on uncertain beliefs or simply false.

Therefore, we believe it is important to implement well-designed programs of education for sexuality, based on full and accurate information, rather than focusing exclusively on contraceptive methods.

REFERENCES