

KNOWLEDGE OF SEXUALLY TRANSMITTED INFECTIONS BY STUDENTS OF A PUBLIC EDUCATION NETWORK INSIDE CEARÁ

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ABSTRACT

Adolescence begins puberty, the stage of life where sexually transmitted infections (STIs) are transmitted mainly through sexual contact, since sexuality is initiated with unprotected practices due to lack of information. The objective of this study is to evaluate adolescents' knowledge about STIs. This is a descriptive study with a quantitative approach, carried out in a high school with adolescents enrolled in this institution through the application of a questionnaire on socioeconomic variables and the knowledge of adolescents about STI. The study was approved by Resolution No. 466/12 of the National Health Council and by the Human Research Ethics Committee (CEP) of the Catholic University Center in Quixadá on protocol number 962.151. 140 adolescents participated in the study. Prevalence of females was 55% (n = 77). Of the adolescents, 42.14% (n = 59) reported having started sexual relations. The most common form of STI transmission among adolescents was sex without condoms, totaling 97% (n = 135). The most common STIs were AIDS, Gonorrhea, Syphilis and Herpes. In this way, the adolescents' knowledge related to STIs can be evaluated, and ways of increasing their knowledge and improving health education can be traced.

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INTRODUCTION

Adolescence comprises the stage of life that goes from 10 to 19 years of age, beginning with puberty and thus characterized by a series of bodily, physiological, psychological and social changes. In Brazil, about 19% of the population is made up of adolescents, which represents approximately 34 billion young people (Garbin *et al.*, 2010). Adolescence is defined as a life cycle process, marked by the quality and quantity of the transformations that take place at this stage.

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Bechara *et al.* (2013) contribute to the definition of adolescence by saying that this period comprises a process that includes the construction of identity, the discovery of sexuality, the formation of a group of friends, the adoption of new values and an experimentation of new important roles in the construction of their own world. At this moment, this public begins to define their activities, aspirations, affective and sexual relations. This transition period between childhood and adulthood is characterized by conflicting feelings and indecisions mainly related to the experience of sexuality. Jardim *et al.* (2013) affirm that at this stage many doubts appear, so it is a group that needs a differentiated attention, since many initiate the sexual life when they do not yet have

adequate knowledge about sexuality, Sexually Transmitted Infections (STIs) and how to prevent them. STIs are infections transmitted primarily through sexual contact and these are caused by viruses, bacteria and protozoa. The mentioned pathologies has a high incidence and prevalence, being this one associated with important cause of morbimortality in the world. It is worth noting that STI affects a large part of the economically active population and, consequently, causes psychosocial and economic problems (Theobald *et al.*, 2012). Data from the Ministry of Health state that STIs represent a serious public health problem because they affect many people and the signs and symptoms are difficult to identify. These health problems are related to the absence of an early search for specialized care and qualified for there are still taboos, disinformation, embarrassment and prejudice to such pathologies (Jardim *et al.*, 2013). However, STIs can be prevented through a number of methods, including condom use, which is currently freely available in public health services, which provides protection for all STIs as well as against unplanned pregnancies. Although this benefit is easily explained, there is still some resistance to adopting this method of prevention, especially by adolescents who present justifications such as not liking to use, relying on partners and the unpredictability of some sexual relationships (Costa *et al.*, 2013). The majority of STIs occur in adolescents, since it is during this phase that the sexuality experience begins, and is characterized by unprotected sexual practices, a problem that occurs due to lack of information, poor communication with the family, absence of a sex education, myths and taboos, as well as the fear of assuming their sex life. Curiosity and the search for new experiences coupled with lack of guidance on the changes that occur at this stage allow these adolescents to become more vulnerable to STI infections (Carleto *et al.*, 2010).

STIs present great reproductive complications for adolescents, because when these conditions are not treated, they can cause sterility, cervical cancer, pelvic inflammatory diseases (DIP), ectopic pregnancy, puerperal infections and low birth weight infants, as well as also lead to problems of self-esteem, and may influence the social life of the adolescent (Garbin *et al.*, 2010). When talking about youth, sexuality and reproduction in Brazilian literature, attention is drawn to the reality of adolescents living in small cities in the interior, where there are few conditions for study. In fact, there are socio-cultural differences between the rural and urban lifestyle, where we can perceive differences between the needs and experiences of these adolescents with respect to reproductive and sexual health (Vonk and Bonan, 2013). Martins and Sousa (2013), say that in view of the non-adoption of safe sex practices of these adolescents, it is denoted that there must be a priority in the development of health education so that it can aim at the transmission of information, as well as giving freedom to these young people can expose their ideas, feelings, experiences and doubts, so that changes of attitude and behavior that reduce the risks. Ferreira *et al.* (2012) say that to implement educational practices in adolescents it is not only necessary to raise awareness about the use of condoms, but also to enable them to reflect on relationships with others and with oneself, addressing issues related to the preservation of moral values and family ethics. Sex education is generally not approached as the subject matter in conversation between adolescents and their parents. For these parents in some cases do not have knowledge about STIs to pass on to their children, as well as a degree of embarrassment in talking about it and a lack of

freedom of dialogue, resulting in a culture of prejudice and an increase in vulnerability of these young people to contracting these diseases (Garbin *et al.*, 2010). It is worth emphasizing that health education activities can be carried out in the school in a way that can attract the attention of these adolescents. The workshops facilitated the communication of these adolescents with the educator, the realization of group dynamics and the use of adequate communication to promote learning and to encourage these adolescents to have autonomy to take care of their own health, be it physical, mental and emotional (Silva *et al.*, 2011). In this context, the nurse acts as a health promotion agent in front of the school scene, where it assumes an important role since nursing has been developing actions of Health promotion, prevention of risks, education and social rehabilitation in health institutions, school environment or even in the community itself (Silva, 2013). The objective of the present study was to evaluate adolescents' knowledge about Sexually Transmitted Infections (STIs).

MATERIALS AND METHODS

The research in question obeyed all the directives of resolution 466/12, of the National Health Council (CNS) of the Ministry of Health. The study in question was referred to the Human Research Ethics Committee (CEP) of the Catholic University Center in Quixadá, obtaining approval on protocol 962.151. The patients signed the Term of Free and Informed Consent (TCLE) in which they explained about the objective, benefits, risks and confidentiality of the research for those responsible. For the adolescents, the Term of Assent was provided, which informed about the research in question. These terms were elaborated in two ways, one for the researcher and another for the participant of the study, which has the signature of both. This is a descriptive study with a quantitative approach carried out with adolescents from the public education network. The study population was composed of adolescents between the ages of 15 and 19 years. The research in question required public school students who were present in the classroom at the time of the approach. We excluded adolescents who had a mental impossibility to understand the instrument. To calculate the sample, we considered the population of 172 students, a sample error of 5%, a probability of occurring event of 50% and a confidence level of 95%, totaling 140 students. Sampling of the study in question was of the simple random type (Polit and Beck, 2011). The sample for the finite population below was calculated by formula:

$$N = \frac{N \cdot Z^2 \cdot p \cdot (1 - p)}{Z^2 \cdot p \cdot (1 - p) + e^2 \cdot (N - 1)}$$

At where:

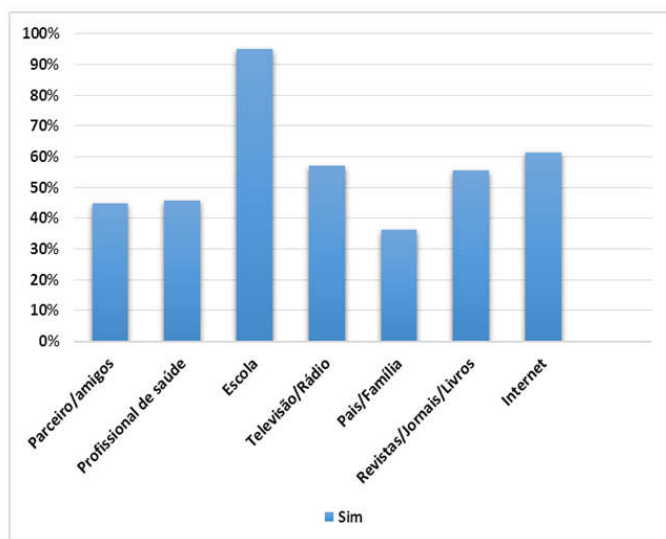
- n – calculated sample
- N – Population
- Z – Standardized standardized variable associated with confidence level
- p – True probability of the event, from 50%
- e – sampling error

The research was conducted at a state high school and vocational school located in the municipality of Quixeramobim-CE. The study was applied in the period of March and April of the year 2015. The data collection was performed with adolescents enrolled in the educational

institution in question. In the classrooms, in the classrooms, a group approach was made with presentation of the objective and the invitation to participate in the research, being guaranteed the freedom to accept or not to participate in the present study through the signing of the Informed Consent Term (TCLE) (by the parents, in which the students took home and thus obtained their parents' signature, and the student's signed consent form. A questionnaire with closed questions was applied, which was adapted from the instrument proposed by Souza and Bona (2007), which allowed to evaluate the knowledge of STDs in young university students in southern Brazil. This instrument investigated the socioeconomic variables and the knowledge about STI by the adolescents, through the investigation of the occurrence of STI, the symptoms in the sexual organs and their knowledge about the methods of prevention. The data obtained were placed in a double entry in the Excel® spreadsheet and a posteriori allocated to the statistical program EPI INFO 7.0, in order to obtain a statistical descriptive analysis (mean, absolute and relative distribution). When these values were obtained, they were presented in graph format.

RESULTS

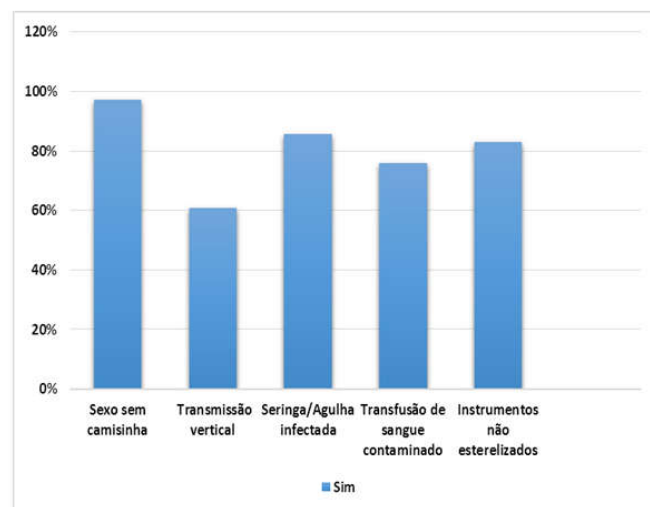
Among the 172 adolescents enrolled in the 3rd year of high school in the public school in question during the period of data collection, 140 students participated in this study, who were present in the classroom and agreed to respond to the questionnaire. The mean age of participants was 17 years (SD ± 0.7075), ranging from 15 to 19 years. It observes a predominance of female respondents (55%), unmarried (97.2%) and with a family income of 1 to 3 minimum wages (31.4%). Of the adolescents interviewed, 42.14% reported having started sexual relations with boyfriend (a) (32.14%) or friend (7.9%). In the study by Garbin *et al.* (2010), it was revealed that all participants were unmarried and when questioned about sexual intercourse, 29.9% had already started sexual life.



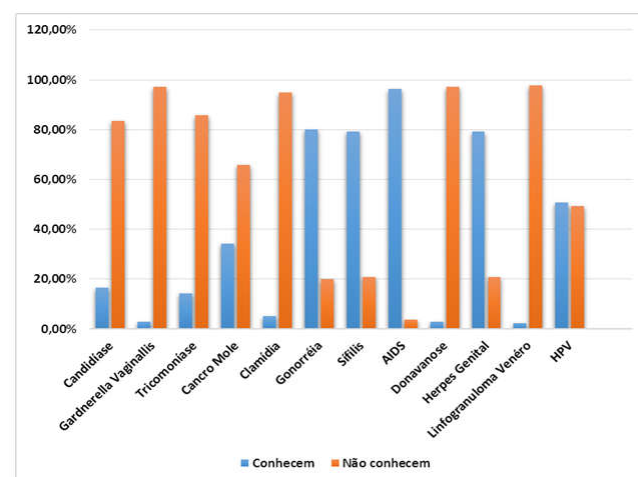
Graph 1. Source used by adolescents to obtain information about sexuality and STI. Quixeramobim-CE, 2015

When questioning about the forms of transmission of STIs that adolescents know, a high prevalence of sex without condom was perceived in 97% of respondents.

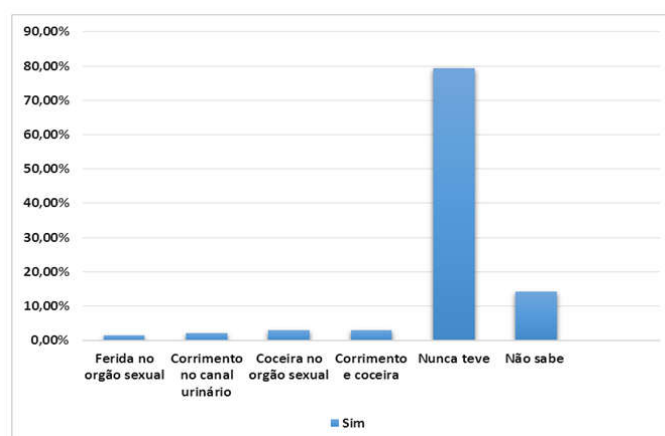
When analyzing the chart, the most common STIs known to adolescents are AIDS, Gonorrhoea, Syphilis and Herpes. It is noticed that the others have a low percentage of knowledge.



Graph 2. Forms of transmission of STIs known to adolescents. Quixeramobim-CE, 2015



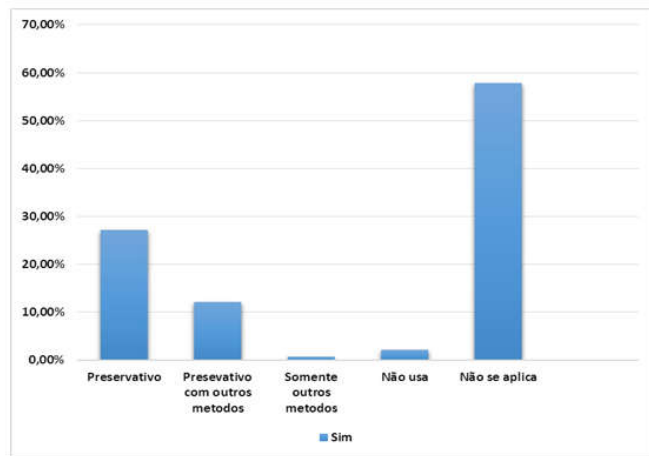
Graph 3. Knowledge of STI by adolescents. Quixeramobim-CE, 2015



Graph 4. STI symptoms presented by adolescents. Quixeramobim-CE, 2015

By looking at the graph above, it can be seen that 79.29% of adolescents reported never having presented any type of STI symptom. When questioned about STI history, 92.86% denied

having had any type of STI. When asked about the methods that these adolescents know to prevent STIs, 51.43% reported knowing the condom, and the others quoted the condom together with other methods.



Graph 5. Methods of prevention of STIs used by adolescents. Quixeramobim-CE, 2015

According to the chart above, 27% of adolescents use condoms in sexual intercourse as STI prevention, and 57.86% did not respond to this questioning because they did not initiate sexual practices. When inquiring about condom use with fixed partners and occasional, 33.57% of adolescents said to use.

DISCUSSION

In the study by Coelho *et al.* (2011), most of the adolescents were female (51%), aged between 15 and 19 (97.6%) and were single (95.2%). The study is related to the present research, in which the prevalence of the age of 17 years coincides with the age range of the comparative study, also showing a predominance of the female respondents. In relation to the beginning of a sexually active life, in the study of Garbin *et al.* (2010), it was revealed that all participants were unmarried and when questioned about sexual intercourse, 29.9% had already started sex life. Costa *et al.* (2013) observed in their study that 44.1% of adolescents had had their first sexual intercourse, with a predominance of 15 to 17 years. He also mentions that one of the main ways these adolescents affirm autonomy is the experience of the first sexual relationship and from there they begin to live a sexuality in a more liberal way.

Comparing the studies to the present study, it is possible to observe the proximity of the results where the age group of the first sexual relation is similar, and the number of interviewees with active sexual relations is collaborating in the study of Costa *et al.* (2013). Costa (2013 b) reported that information obtained on sexuality and STDs came from the school (50.8%), lectures with health professionals (32.4%), radio, television and newspaper (54%), mother (42%) and friends (35.6%). Jardim *et al.* (2013) says that in their study the adolescents claimed to acquire information through conversations with parents and friends. These cited actions taken at school about STIs, as well as reported that some lectures held in the school environment were given by health professionals. These adolescents also reported having greater freedom to talk about such matters with colleagues and friends. The data of these studies has a certain relation to the present research, where the greatest source of access to the subject

comes from the school. In the study by Carleto *et al.* (2010), it was considered 100% correct to indicate the forms of STD transmission, including sex without condoms and syringe and needle sharing. Costa *et al.* (2013) states in their study that adolescents know as transmission of STI sexual transmission, contaminated blood and mother to child. In the present study, the respondents attributed the presence of STDs to the use of sex without a condom almost totally, not fully collaborating with the studies mentioned above. No estudo de Theobald *et al.* (2012) com relação ao conhecimento geral das IST, 91% disseram conhecer alguma IST, dentre elas: AIDS, Sífilis e Gonorréia. Bechara *et al.* (2013) questioned STIs in their study and found that AIDS information predominates when compared to other diseases. However, incorrect or incomplete knowledge about this disease is observed. AIDS in the study by Vonk and Bonan (2013) is the most well-known IST (88.5%), followed by conditions such as gonorrhea, syphilis and others. In the study by Macedo *et al.* (2013) AIDS and Gonorrhea are also the most well-known infections among adolescents. They justified the knowledge because they are the most widespread diseases in society and are related to campaigns to influence the use of condoms. The STDs most known to the interviewees included AIDS, Gonorrhea, Syphilis and Herpes, which coincides with the literature. By looking at the graph above, it can be seen that 79.29% of adolescents reported never having presented any type of STI symptom. When questioned about STI history, 92.86% denied having had any type of STI.

Theobald *et al.* (2012) in his study observed that only two students had a previous history of STI, being higher incidence in the population that already initiated the sexual relations. To the adolescents with sexual experience of the study of Vonk, Bonan and Silva. (2013) was asked if they had any history of STI, but the response was negative in all cases. In the present study, the vast majority of respondents reported having no signs of STI or having some type of STI. When asked about the methods that these adolescents know to prevent STIs, 51.43% reported knowing the condom, and the others quoted the condom together with other methods. In the study by Jardim *et al.* (2013) when asked about the prevention of STIs, adolescents reported that the main form is the use of condoms in sexual relationships, because safe sex is very important for them. For the adolescents of the study by Ferreira *et al.* (2012) prevention is to use condoms in the sexual act. Garden and Saints. (2012) in their study found that the condom is known to 93.4% of adolescents, 69.8% considered the use important and 46.4% justified the importance of preventing STIs. According to Costa (2013) in his study that analyzed the use of methods to prevent STI, it was verified that the method most used by adolescents is the condom. Most adolescents used condoms in their sexual relations in the study of Vonk and Bonan. (2013). And in the study of Jardim and Santos. (2012) adolescents when asked about what they have done to prevent STIs 63.2% responded using condoms for prevention. In the present study, the adolescents reported the use of the condom, but also cited the use of other methods, differing in part from the aforementioned surveys.

Conclusion

The results showed that the condom is the method of prevention known by adolescents and they have a habit of using it in relationships with fixed and occasional partners. It is seen that school is the way that these adolescents have more

access to obtain information about sexuality and STI, but is perceived an ignorance about some of these infections. Therefore the school is an important scenario for the implementation of health education during classes and the development of lectures by health professionals, including mainly nursing that plays an essential role in disease prevention.

REFERENCES

- Bechara AMD, Gontijo DT, Medeiros M, Facundes VLD 2013. Na brincadeira a gente foi aprendendo: promoção de saúde sexual e reprodutiva com homens adolescentes. *Rev. Eletr. Enf.* 15: 25-33.
- Brasil, Ministério da Saúde, 2010. Secretária de Atenção à Saúde. Departamento de Atenção Básica. Saúde Sexual e Saúde Reprodutiva. Brasília: Editora do Ministério da Saúde.
- Carleto AP, Faria CS, Martins CBG, Souza SPS, Matos KF 2010. Conhecimentos e práticas dos adolescentes da capital de Mato Grosso quanto às DST/AIDS. *DST - J bras Doenças Sex Transm.* 22: 206-211.
- Coelho RFS, Souto TG, Soares LR, Lacerda LCM, Matão MEL, 2011. Conhecimentos e crenças sobre doenças sexualmente transmissíveis e HIV/AIDS entre adolescentes e jovens de escolas públicas estaduais da região oeste de Goiânia. *Rev de Patologia Tropical.* 40: 56-66.
- COSTA ACPJ, 2013 b. Plantão educativo para a prevenção de DST/HIV/AIDS com adolescentes escolares. Fortaleza, 158f. Dissertação. (Pós-Graduação em Enfermagem). Universidade Federal do Ceará.
- Costa ACPJ, Lins AG, Araújo MFM, Araújo TM, Gubert FA, Vieira NFC 2013. Vulnerabilidade de adolescentes escolares às DST/HIV, em Imperatriz-Maranhão. *Rev Gaúcha Enferm.* 34: 179-186.
- Ferreira AGN, Silva KM, Sousa PRM, Gubert FA, Vieira NFC, Pinheiro PNC, 2012. Cultura masculina e religiosidade na prevenção DST/HIV/AIDS em adolescentes. *Rev. Min. Enferm.* 16: 572-578.
- Garbin CA, Lima DP, Dossi AP, Arcieri RM, Rovida TA 2010. Percepção de adolescentes em relação a doenças sexualmente transmissíveis e métodos contraceptivos. *DST - J bras Doenças Sex Transm.* 22: 60-63.
- Jardim FA, Campos TS, Mata RN, Firmes MPR, 2013. Doenças sexualmente transmissíveis: a percepção dos adolescentes de uma escola pública. *Cogitare Enferm.* 18: 663-668.
- Macedo SRH, Miranda FAN, Pessoa Junior JM, Nóbrega VKM, 2013. Adolescência e sexualidade: scripts sexuais a partir de representações sociais. *Rev Bras Enferm.* 66: 103-109.
- Martins CBG, Souza SPS, 2013. Adolescente e sexualidade: as possibilidades de um projeto de extensão na busca de uma adolescência saudável. *av.enferm.* 31:170-176.
- Polit DF, Beck CT, Hungler BP, 2011. Compreensão do delineamento da pesquisa quantitativa. In: *Fundamentos de pesquisa em enfermagem: métodos, avaliação e utilização.* 5.ed. Porto Alegre: Artmed.180.
- Silva AA. Avaliação da atuação do enfermeiro na prevenção de DST/AIDS no programa Saúde na Escola. Fortaleza, 107f. Dissertação. (Pós-Graduação em Enfermagem). Universidade Federal do Ceará.
- Silva KL, Maia CC, Dias FLA, Vieira NFC, Pinheiro PNC. A educação em saúde junto aos adolescentes para a prevenção de doenças sexualmente transmissíveis. *Rev. Min. Enferm.* 15: 607-611.
- Souza FG, Bona JC, Galato D (2007). Comportamento de jovens, de uma Universidade do Sul do Brasil frente à prevenção de doenças sexualmente transmissíveis e gravidez. *DST – J bras Doenças Sex Transm.* 19: 22-29.
- Theobald VD, Nader SS, Pereira DN, Gerhardt CR, Oliveira FJM. A universidade inserida na comunidade: conhecimentos, atitudes e comportamento de adolescentes de uma escola pública frente a doenças sexualmente transmissíveis. *Revista da AMRIGS.* 56: 26-31.
- Vonk ACRP, Bonan C, Silva KS (2013). Sexualidade, reprodução e saúde: experiências de adolescentes que vivem em um município do interior de pequeno porte. *Ciência & Saúde Coletiva.* 18: 17951807
