

HIV vulnerability among adolescents attending to public schools

Vulnerabilidade ao HIV/AIDS em adolescentes da rede pública de ensino

Vulnerabilidad al HIV/SIDA en adolescentes de la red pública de enseñanza

Pauliana Alves Moreira¹, Tahoane da Silva Reis², Rosemar Barbosa Mendes³, Andreia Freire Menezes⁴.

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ABSTRACT

Objective: This study aims to understand the HIV vulnerability in adolescents attending public schools.

Methods: This cross-sectional study was carried out in classrooms of public schools with 204 adolescents within the age group from 14 to 18 years old. Firstly, the adolescents were informed about how to participate in the research; after this, they filled out a structured questionnaire about HIV vulnerability among adolescents.

Results: According to the results, 62% of the male participants had already started the sexual practice, contrasting with 38% of the female ones. We have found a considerable HIV vulnerability among these adolescents: 67.6% were vulnerable, and 82.9% of them were men. **Conclusion:** Students of public schools need more assistance from the public health services, offering them information on preventing sexually transmitted diseases.

Descriptors: Adolescent, Vulnerability, HIV/AIDS.

RESUMO

Objetivo: Conhecer a vulnerabilidade de adolescentes do ensino médio da rede pública sobre o risco de contrair HIV/AIDS. **Métodos:** Pesquisa transversal, de natureza quantitativa, constituída por 204 adolescentes na faixa etária entre 14 e 18 anos. A abordagem aos adolescentes aconteceu em sala de aula em dois momentos: no primeiro momento, os adolescentes foram orientados quanto à participação na pesquisa; no segundo houve o preenchimento de um estruturado sobre vulnerabilidade HIV/AIDS pelos adolescentes. **Resultados:** Os resultados identificaram que 62% dos adolescentes do gênero masculino entrevistados já haviam iniciado a prática sexual enquanto que no gênero feminino foi de 38%. Observou-se uma vulnerabilidade considerável entre os adolescentes ao HIV, 67,6% estão em situação de vulnerabilidade, sendo que 82,9% destes adolescentes são do gênero masculino. **Conclusão:** Observa-se a necessidade de intensificar a atenção à saúde dos adolescentes nas escolas, oferecendo aos jovens informações sobre a prevenção dos agravos relativos à atividade sexual.

Descritores: Adolescente, Vulnerabilidade, HIV/AIDS.

RESUMEN

Objetivo: Conocer la vulnerabilidad de los adolescentes de la escuela secundaria de la red pública sobre el riesgo de contraer el VIH / SIDA. **Métodos:** Investigación transversal, de naturaleza cuantitativa, constituída por 204 adolescentes en el grupo de edad entre 14 y 18 años. El enfoque a los adolescentes tuvo lugar en el aula en dos momentos: en el primer momento, los adolescentes fueron orientados en

1 Graduanda em Enfermagem pela Universidade Federal de Sergipe. E-mail: paulianamoreira@gmail.com

2 Graduanda em Enfermagem pela Universidade Federal de Sergipe. E-mail: gfsctsr@gmail.com

3 Doutoranda do núcleo de pós-graduação em ciências da saúde da Universidade Federal de Sergipe. E-mail: rosemarm@uol.com.br

4 Doutoranda do núcleo de pós-graduação em ciências da saúde da Universidade Federal de Sergipe. E-mail: deiamenezes1@hotmail.com

cuanto a la participación en la investigación; en el segundo hubo el llenado de un estructurado sobre vulnerabilidad VIH / SIDA por los adolescentes. **Resultados:** Los resultados identificaron que el 62% de los adolescentes del género masculino entrevistados ya habían incitado la práctica sexual mientras que en el género femenino fue del 38%. Se observó una vulnerabilidad considerable entre los adolescentes al VIH, el 67,6% está en situación de vulnerabilidad, siendo que el 82,9% de estos adolescentes son del género masculino. **Conclusión:** Se observa la necesidad de intensificar la atención a la salud de los adolescentes en las escuelas, ofreciendo a los jóvenes información sobre la prevención de los agravios relativos a la actividad sexual.

Descriptor: Adolescente, Vulnerabilidad, VIH / SIDA.

INTRODUCTION

Adolescence is the phase of transition between childhood and adulthood. According to the Brazilian Statute of the Child and Adolescent (SCA), this period ranges from 12 to 18 years. The Brazilian Health Ministry agrees with the World Health Organization (WHO), which defines adolescence as the period between 10 and 19 years of age and youth between 15 and 24 years.¹

Adolescence is a period marked by intense changes, doubts, and indecisions, making the adolescent population very vulnerable to health risks. Infection by the Human Immunodeficiency Virus (HIV) is an important way of expressing this vulnerability mainly because it is an infectious and incurable disease.²

In health, understanding the people's vulnerabilities is to know the conditions that can leave them fragile and expose them to illness. In the context of HIV/AIDS prevention, the term vulnerability is often used to objectively assess the chances that each person or each group has of becoming infected or protecting themselves. In this sense, in addition to referring to individual factors that would lead a person or a group to adopt protected behavior towards the HIV, the term "vulnerability" also seeks to analyze institutional and social aspects that would influence the safety in sexual practices.³

The use of individual, social and institutional vulnerability in the design of preventive actions allows it to think about prevention beyond personal responsibility. In fact, these actions are influenced by social factors, such as the socioeconomic and cultural reality that hinders or blocks the access to information, inputs and public health services. It also makes it possible to understand whether institutions are facilitating and making available information, inputs, materials and other elements necessary for adolescents and young people not to be exposed to HIV and other sexually transmitted infections (STIs) in an effective and democratic way.⁴

The occurrence of HIV among adolescents is increasing with higher rates of new infections in the young population. Almost half of the new cases of HIV infection occur in the 15-24 age group. Considering that most of the HIV-infected people are in their twenties, it is assumed that most of the infections occurred during adolescence, since the disease may remain asymptomatic for a long time.⁵

In Brazil, the HIV infection's epidemiological profile has significantly changed. According to data from the Epidemiological Bulletin of the Health Ministry, published in 2015, the number of adolescents and young people aged 15 to 24 years with HIV increased by 41% in Brazil over the last ten years.⁶

The United Nations Population Fund (UNPF) states that a young person aged from 15 to 24 years is infected with HIV every 14 seconds. Therefore, it is essential to implement youth-oriented prevention programs before the establishment of behavioral practices that can increase the risk of HIV transmission, as well as to assess their impact.

The issue of HIV/AIDS among adolescents should be focused on the need to implement strategies to reduce the risks of transmission in this population. HIV prevention among young people is currently the goal of the Brazilian public health policies mainly because they begin to have sex increasingly early.⁸

Strategies aimed at the adolescence's specific demands and issues should be implemented with health-oriented actions aimed at stimulating the adolescents' participation in services, collaborating to improve their quality of life and modifying their health profile. Therefore, the units covered by the *Estratégia de Saúde da Família* (ESF) [Family Health Strategy] should establish partnerships with schools and the community, offering comprehensive and multidisciplinary services to adolescents in order to develop informational actions for adolescents.⁹

The school can be understood as a privileged space for linking education and health. Therefore, the school environment is extremely important for health promotion since it assists the critical citizens with their development and training, stimulating autonomy, exercising rights and duties, controlling health conditions and quality of life, and offering the option healthier attitudes.¹⁰

Hence, it is necessary to analyze the contexts and think about prevention strategies for the adolescent's and youth people's different profiles, especially based on a solid and objective education in schools, aiming to develop effective actions for education about HIV prevention.

Given the aforesaid, this study's purpose is to know the HIV vulnerability among high school adolescents.

METHODS

This is a cross-sectional study with a quantitative approach. The research sample was composed of 204 adolescents of both genders enrolled in all high school grades in 2017. It was conducted at *Colégio Estadual José Lopes de Almeida*, a public institution in the municipality of *Riachão do Dantas*, *Sergipe* State, Brazil.

The inclusion criteria were: high school adolescents 14 to 18 years who presented the Free and Informed Consent Form (FICF) signed by a person responsible for them.

For data collection, the questionnaire named "*Eu Preciso fazer o teste do HIV/AIDS? Mobilização Nacional de adolescentes e jovens do Ensino Médio para prevenção da infecção pelo HIV e da AIDS*" [Do I Need to take the

HIV/AIDS Test? National Mobilization of adolescents and young people of High School for the prevention of HIV infection and AIDS] was used. It was developed by the *Projeto Saúde e Prevenção nas Escolas* [Project for Health and Prevention in Schools], in partnership with the Health Ministry, the Education Ministry, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Children's Fund (UNICEF) and United Nations Population Fund (UNFPA).

The questionnaire also presented variables related to gender, age, school grade, and religion without exposing the participants' identity.

Firstly, the adolescents were informed about the research and how to participate it; after this, those who agreed to participate in this study presented the signed FICF and filled out the questionnaire.

Data analysis was performed using the response table from the questionnaire. The scores were classified according to HIV vulnerability as follows (invulnerable, possibly vulnerable, and vulnerable). The results were organized in an Excel table.

This research was carried out under Resolution 466/2012 of the Brazilian National Health Council, which guides research involving human beings (CAAE [certificate of presentation for ethical consideration] number: 63241316.9.0000.5546).

RESULTS

The students' research variables are presented in **Table 1**. From a total of 204 adolescents, 128 (62.8%) were woman, 76 (37.2%) were men, 63 (30.9%) were first-grade students, 67 (32.8%) were second-grade students, and 74 (36.3%) were third-grade students.

Table 1 - Adolescents' research variables.

Research variable	n	Total %
Gender		
Female	128	62.8
Male	76	37.2
Education		
1st grade (High School)	63	30.9
2nd grade (High School)	67	32.8
3rd grade (High School)	74	36.3
Age		
14 years	16	7.8
15 years	38	18.6
16 years	74	36.3
17 years	54	26.5
18 years	22	10.8
Religion		
Catholic	164	80.4
Protestant	27	13.2
None	11	5.4
Other	02	1.0
Total	204	100.0

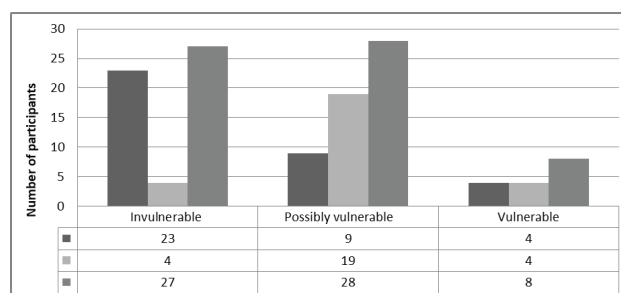
Source: research data.

For the 14-18 age group, 74 participants were 16 years old (36.3%) and 54 (26.5%) were 17 years old.

Concerning the participants' religion, 164 (80.4%) students were Catholic, 27 (13.2%) were Protestants, 11 (5.4%) declared having no religion, and two (1 %) reported having other belief.

Regarding the adolescents' behavior, 23 (64%) first-grade female adolescents were invulnerable, nine (25%) were possibly vulnerable, and four (11%) were vulnerable. Regarding the male ones, four (15%) were invulnerable, 19 (70%) could be vulnerable and four (15%) were vulnerable (**Figure 1**).

Figure 1 - Results from the first-grade adolescents.



As can be seen in **Figure 2**, 15 (34%) second-grade female adolescents were invulnerable, 22 (50%) were possibly vulnerable, and seven (16%) were vulnerable. Moreover, three (13%) male students were invulnerable, 12 (52%) were possibly vulnerable and 8 (35%) were vulnerable.

Figure 2 - Results from the second-grade adolescents.

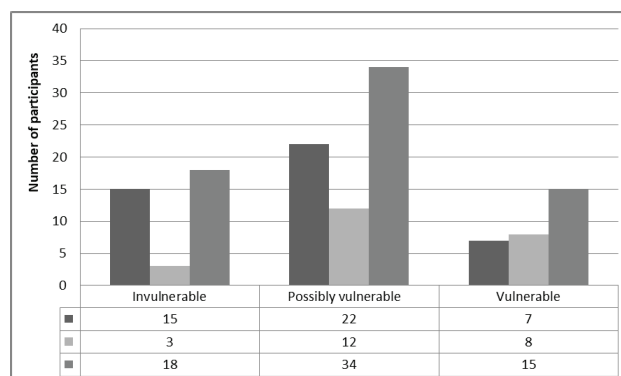
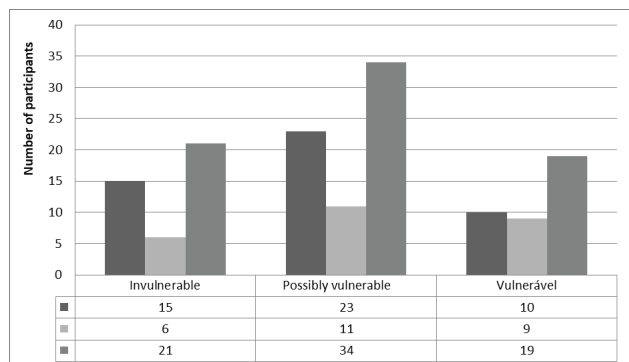


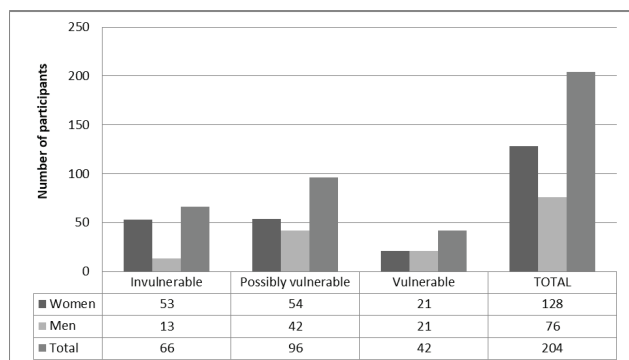
Figure 3 shows that 15 (31%) third-grade female adolescents were invulnerable, 23 (48%) were possibly vulnerable and 10 (21%) were vulnerable. Regarding the male ones, 6 (23%) were invulnerable, 11 (42%) were possibly vulnerable and 9 (35%) were vulnerable.

Figure 3 - Results from the third-grade adolescents.



We compared these results for all grades and found that 53 (26%) female adolescents were invulnerable, 54 (26.4%) were possibly vulnerable, and 21 (10.3%) were vulnerable. On the other hand, 13 (6.4%) male adolescents were invulnerable, 42 (20.6%) were possibly vulnerable, and 21 (10.3%) were vulnerable. Thus, from the total of 204 participants, 66 (32.4%) were invulnerable, 96 (47.0%) were possibly vulnerable, and 42 (20.6%) were vulnerable (**Figure 4**).

Figure 4 - Results from all students by gender.



Considering sexual activity, the results showed that 99 (77%) female adolescents had no sexual intercourse, while 29 (3%) had at least one. As for the male adolescents, 47 (62%) had no sexual intercourse, while 29 (38%) had it.

DISCUSSIONS

According to this study's results, 67.6% of the adolescents showed some degree of vulnerability (considering the "vulnerable" and "possibly vulnerable" variables). This finding is consistent with that of a study on HIV vulnerability among high school students age 15 to 18 in a public school, which reported that 59.5% of the interviewees are in a vulnerable situation.¹¹ Furthermore, a similar study with 150 students showed that 94.66% of them rarely use condoms during sex, thus evidencing a high level of HIV vulnerability among them.¹²

This study produced results which corroborate the information from the Health Ministry, which states that the number of HIV cases among young people, the most vulnerable group, has increased in Brazil. Furthermore, according to its 2016 HIV/AIDS Epidemiological Bulletin, most of these cases occurred among young people aged 15-24 years.¹³

Most of the male participants (82,9%) showed HIV vulnerability. According to another study, 64.6% of the adolescents considered vulnerable and less resilient are male.¹⁴

According to the Health Ministry, the number of HIV/AIDS cases has increased among men in Brazil. In 2006, the ratio was 1 woman for every 1.2 men, whereas in 2015 this changed into 1 woman for 3 men. From 2006 to 2015 the rate of detection of AIDS cases among young men age 15 to 19 has almost tripled (from 2.4 to 6.9 cases per 100,000 people).¹⁵

A research conducted in 2008 by the Health Ministry revealed some factors that contribute to increasing the adolescents' and young people's HIV vulnerability. Among them are the difficulty in accessing information; the lack of knowledge about the adolescents' and young people's sexual and reproductive rights; stigmas and prejudices (gender, gender identity, race/ethnicity, sexual orientation, among others); little dialogue with the family, especially about sexuality; and the low frequency of adolescents and young people in using the health services.¹⁶

The factors that lead to spreading HIV/AIDS are the early first sexual intercourse, lack of information about sex, high number of sex partners, alcohol use, illicit drug use, and lack of condom use.¹⁷

Stronger measures are needed not only for promoting information and prevention through public campaigns, but also for establishing partnerships with other institutions, such as schools and units covered by the *Programa Saúde da Família* [Family Health Program].¹⁸

Health education with guidance about family, education, and public investments are important for preventing HIV among adolescents.¹⁹ In this sense, some factors may contribute to change the pattern of sexual behavior, such as the access to various types of educational information about sexual activity and prevention of sexually transmitted diseases, as well as the access to internet, the distribution of condoms in different environments, the dialogue with parents about sex, and the access to health care services.¹⁸

This study's results showed that 28.4% (n = 58) of the adolescents age 14 to 18 years reported having had sexual intercourse. A similar study demonstrated that 27.1% of adolescent students age 14 to 15 reported having had sexual intercourse.²⁰ Additionally, the results from the 2015 *Pesquisa Nacional de Saúde do Escolar (PeNSE)* [National Survey for the Student's Health] indicated that 27.5 % of Brazilian students had at least one sexual intercourse.²¹ It is important to highlight that when comparing these studies, the first sexual intercourse is happening more earlier for both sexes, thus increasing the adolescents' susceptibility to sexually transmitted diseases.

Considering that adolescents are starting their sexual lives earlier, there is a need for health education, so that they can acquire a greater understanding of preventive measures and behavior changes that are important for reducing the number of HIV cases.

It is important to note that, due to inhibitory factors such as the participants' shame and disinterest, some results may be underestimated.

CONCLUSIONS

This study's results reinforced the idea that adolescents make up a group with a high level of HIV vulnerability not only because they start to practice sexual activities early, but also because they present risk behaviors that increase their chances of contracting HIV.

The growth of HIV cases among young people remains a major concern and more actions to address this issue must be done. There is now an urgent need to make adolescents able to protect themselves from HIV and other sexually transmitted diseases and guarantee them the right to a safe and healthy sexual development.

Thus, it is observed the need for providing health care for adolescents in schools, offering them information on preventing health problems caused by sexual activity. It is fundamental to raise awareness among adolescents and young people about HIV and stimulate them to put in practice self-protection behavior, which impacts this population's health and infection profile.

Young people and adolescents with little knowledge about sexual issues are more susceptible to sexually transmitted diseases. It is necessary that health care professionals, especially nurses, work on sexual education on HIV vulnerability, providing adolescents and young people with the knowledge and skills necessary to make conscious and healthy choices, thus changing their behavior.

The results of this study can contribute to planning educational and preventive actions for making the adolescents develop more careful behaviors, as well as assist the implementation of new strategies favoring knowledge and the indispensable participation of young people in the prevention of sexually transmitted diseases, thus contributing to changing the epidemiological profile of HIV in adolescence.

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Corresponding author

Andreia Freire de Menezes

Address: Avenida Deputado Silvio Teixeira, Edifício Horto das Figueiras, 651, apartamento 1601, Jardins, Aracaju,

Sergipe, Brazil

Zip code: 49.025-100

E-mail address: deiamenezes1@hotmail.com

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