Journal of Nursing
Revista de Enfermagem
UFPE On Line
ISSN: 1981-8963

ORIGINAL ARTICLE

ACQUIRED IMMUNODEFICIENCY SYNDROME: KNOWLEDGE OF TEENS

SÍNDROME DA IMUNODEFICIÊNCIA ADQUIRIDA: CONHECIMENTO DE ADOLESCENTES

LA SÍNDROME DE LA INMUNODEFICIENCIA ADQUIRIDA: EL CONOCIMIENTO DE LOS ADOLESCENTES

Patrick Leonardo Nogueira da Silva[1], Fernando Alves Soares[2], Wanessa Cardoso Souza[3], Valessa Gizele Ramos de Oliveira[4], José Ronivon Fonseca[5]

ABSTRACT

Objective: identifying the knowledge of adolescents from a state school about the acquired immunodeficiency syndrome. ***Method:*** a descriptive, observational study of a quantitative approach. The sample comprised 53 high school students. There was used a semi-structured questionnaire as a data collection instrument. The research project was approved by the Research Ethics Committee, CAAE: 0236.0.445.000-11. ***Results:*** most students were aged 18 (66%), women (51%), living with parents (88,6%) and are single (96%). Of the total, 98% know that AIDS is a disease that has no cure but it has control; 62,2% of students do not know the causative agent; and 66% are unaware of the manifestation of the disease. ***Conclusion:*** the teenagers demonstrated knowledge about the disease, but there is still a deficit in knowledge, which is recommended for the development of specific educational measures for this group. ***Descriptors:*** Knowledge; Adolescents; Acquired Immunodeficiency Syndrome; HIV.

RESUMO

Objetivo: identificar o conhecimento de adolescentes de uma escola estadual sobre a síndrome da imunodeficiência adquirida. ***Método:*** estudo descritivo, observacional, com abordagem quantitativa. A amostra deste estudo compreendeu 53 estudantes do ensino médio. Foi utilizado um questionário semiestruturado como instrumento de coleta de dados. O projeto de pesquisa foi aprovado pelo Comitê de Ética em Pesquisa, CAAE: 0236.0.445.000-11. ***Resultados:*** a maior parte dos estudantes apresentou idade de 18 anos (66%), sexo feminino (51%), reside com os pais (88,6%) e são solteiros (96%). Do total, 98% sabem que a AIDS é uma doença que não possui cura, mas tem controle; 62,2% dos alunos não conhecem o agente etiológico; e 66% desconhecem a manifestação da doença. ***Conclusão:*** os adolescentes demonstraram conhecer sobre a doença, mas ainda há déficit no conhecimento na qual se recomenda o desenvolvimento de medidas educativas específicas para este público. ***Descritores:*** Conhecimento; Adolescente; Síndrome de Imunodeficiência Adquirida; HIV.

RESUMEN

Objetivo: identificar los conocimientos de los adolescentes de una escuela estatal acerca del síndrome de inmunodeficiencia adquirida. ***Método:*** este es un estudio descriptivo, observacional con un enfoque cuantitativo. La muestra fue compuesta por 53 estudiantes de secundaria. Se utilizó un cuestionario semi-estructurado como un instrumento para la recolección de datos. El proyecto de investigación fue aprobado por el Comité de Ética en la Investigación, CAAE: 0236.0.445.000-11. ***Resultados:*** la mayoría de los estudiantes tenían la edad de 18 años (66%), la mayoría mujeres (51%), viviendo con los padres (88,6%) y son solteros (96%). Del total, el 98% sabe que la SIDA es una enfermedad que no tiene cura, pero tiene el control; 62,2% de los estudiantes no saben el agente causal; y el 66% no son conscientes de la manifestación de la enfermedad. ***Conclusión:*** los adolescentes demostraron saber acerca de la enfermedad, pero todavía hay un déficit en el conocimiento, que recomienda el desarrollo de medidas educativas específicas para este grupo. ***Descriptores:*** Conocimiento; Adolescentes; Síndrome de Inmunodeficiencia Adquirida; VIH.

[1]Nurse, Specialist in Family Health, State University of Montes Claros/Unimontes. Montes Claros (MG), Brazil. Email: patrick_mocesp70@hotmail.com; [2]Nurse, United Colleges of Northern Minas Gerais/Funorte. Montes Claros (MG), Brazil. Email: fernandosoares.funorte@yahoo.com.br; [3]Nurse, United Colleges of Northern Minas Gerais/Funorte, Montes Claros (MG), Brazil. Email: wanessaeng@hotmail.com; [4]Nurse, Master Teacher of Nursing, Department of Nursing of the United Colleges of Northern Minas Gerais/Funorte. Montes Claros (MG), Brazil. Email: valessagiz@yahoo.com.br; [5]Nurse, Teacher, Master's Student of Primary Health Care, Department of Nursing of the United Colleges of Northern Minas Gerais/Funorte. Montes Claros (MG), Brazil. Email: pisecfunorte@yahoo.com.br

INTRODUCTION

Adolescence is a transition period of life between childhood and adulthood that is characterized by a process of biological, psychological, social and cultural changes and can have varying lengths, depending on the individual. In general, this phase consists of three stages: early adolescence (10-14 years old), medium (14-17) and late adolescence (17-20 years old). The changes experienced by teenagers occur in all organs and body structures due to hormonal action involving sex hormones and evolution of sexual maturity, accompanied by the development of male and female secondary sexual characteristics. This is the call phase of puberty, which concludes when you stop bone growth and maturation of the gonads.[1] Brazil's adolescent population exceeds the amount of 40 million. In Minas Gerais, with a population of 19.273.506 inhabitants, teenagers, aged from 10 to 20 years old represent 2.587.948 people of the total population.[2]

The adolescent experiences the search for identity, formed by intrinsic and extrinsic factors on which can take them to the sense of loss as a result of the transition from child to adult stage, the demand for independence, the demand for a social space. At that stage we tend to gather in groups alike in order to be subject to constant change behavior, so need for dialogue and support.[3] In adolescence, the experience of sexuality is focused on the dimension of sex, which often is manifested through unsafe sexual practices and can become a problem due to lack of information and the taboos carried by teenagers. In the case of Sexually Transmitted Diseases (STD) and Acquired Immune Deficiency Syndrome (AIDS), it is essential that health education and prevention have priority focus.[4]

The AIDS epidemic in the country has shown features of internalization, heterossexual, feminization and pauperization, approaching the carrier of the disease increasingly the socioeconomic profile of most Brazilians. Another worrying fact is the growing incidence of AIDS in the age group of 13-19 years old among females, a fact attributed to the beginning of early sexual activity than boys, with older partners and sexual experience, at risk contamination by STD and HIV.[5]

Interest in this theme arose during the experiences with groups of adolescents through sexual education in two public schools of the city of Montes Claros / MG, through dynamic with students from the 8th grade students and 1st year in high school, prioritizing preventive actions related to STD/AIDS and unplanned early pregnancy in adolescence, it is possible to analyze the ways in which they have been in a relationship with the beginning of sexual practices.

To adopt preventive measures is essential that the individual has sufficient clarification, so the aim of this study was to identify the knowledge of adolescents from a public school on the Acquired Immunodeficiency Syndrome (HIV/AIDS).

METHOD

This is a field study of observational type, of descriptive nature with a quantitative approach. The study was conducted in the State School Doutor Carlos Albuquerque, located in the southern region of Montes Claros, Minas Gerais. The school serves about 2,300 students from elementary school to high school, in the morning, afternoon and night shifts. At the time of data collection there were 57 adolescents of male and female genders, aged over 18 years old and less than 20, enrolled in the 3rd year of that high school. The sample consisted of 53 participants, since four students were not found after three attempts.

For this research there were used as inclusion criteria stablished to participate in the survey, namely: taking part in the study; being present at the time of collection; and aged to 18 years old (not to be necessary permission from parents or guardians to participate) and less than 20. Although there is variation in the classification of adolescents with respect to age, for this study it was chosen the classification adopted by the World Health Organization (WHO) that characterizes the individual as a teenager aged up to 19 years old.

As data collection instrument, there was used a semi-structured questionnaire with questions regarding the sample characterization and knowledge of adolescents about AIDS. Not carried out a pilot study to assess the previous knowledge of adolescents about the theme.

Data were collected in October 2011, during the turn of class, after all necessary consents and the consent of the pupil documented by signing the Informed Consent. All adolescents participated in the research cheerfully and measures were adopted to safeguard the confidentiality of information, privacy and integrity of adolescents. Data analysis was done quantitatively using the Statistical Package for Social Sciences/SPSS,

establishing the absolute and percentage frequency, presented in tables, discussed critically, based on the theoretical framework set up.

The study met all standards and ethical aspects of Resolution 466/12 of the National Health Council (CNS) in which regulates research involving human subjects and the study was conducted only after consideration and approval of the Research Ethics Committee (CEP) and authorization from the Department of Education. The research project was approved by the Research Ethics Committee of the United Colleges of Northern Minas Gerais (CEP FUNORTE) under the advice embodied nº 01795/2011, CAAE: 0236.0.445.000-11.

RESULTS

In Montes Claros, a town located in northern Minas Gerais, there is considerable prevalence of adolescents with early start of sexual activity. This practice started early without any guidance exposes them to risks, especially unwanted pregnancy and acquiring an STD. These consequences affect both the health of the adolescents themselves as the health of their family. Unwanted pregnancy and STD set up a life marked by the stigma, prejudice and retaliation for this teenage creating a social and family isolation. The following will be displayed initially to characterize the sample.

Table 1. Distribution of students according to the socio-demographic characteristics. Montes Claros (MG), Brazil, 2011.

Variables	n	%
Gender		
Male	27	51
Female	26	49
Age (years)		
18	35	66
19	18	34
Marital Status		
Single	51	96
Married / Stable union	02	04
Lives with		
Parents	47	88,6
A partner / Husband or Wife	01	02
Other	05	9,4
Ethnicity / Skin color		
White	04	7,5
Black	16	30,1
Dark colored	31	58,4
Yellow	01	02
Other	01	02
Monthly family income in minimum wages (MW)		
< 01	11	20,7
≥ 01 and ≤ 02	33	62,4
≥ 03 and ≤ 04	06	11,3
> 04	03	5,4

Source: Teenagers from the State School Doutor Carlos Albuquerque, Montes Claros, Minas Gerais, Brazil, 2011.

According to Table 1, most of the participants were aged 18 (66%) and the others were 19 (34%). Regarding the gender, 51% are female and 49% male. In relation to marital status, 96% say they are single and 04% married (a) or in a stable relationship. Much of the adolescents surveyed reside with their parents (88,6%), namely the city itself. Only 02% live with a partner. Other 9,4% are teenagers coming from other cities to study and live in apartments, hostels or republic with other students. Currently the city of Montes Claros/MG is considered a student hub featuring teens from various locations. Concerning the race, more than half (58,4%) of adolescents reported being mixed race, followed by 30,1% of the black color. According to the information given by the students, 62,4% have a monthly household income 01-02 times the minimum wage.

Table 2. Distribution of students according to the knowledge about AIDS. Montes Claros (MG), Brazil, 2011.

Variables	n	%
Sources of information about AIDS		
Teachers/School	36	67,9
Journals/Magazines/Books	35	66
TV programs/Internet	34	64,1
Mother/Father/Family	19	35,8
Friends/Boy or Girl friend	13	24,5
Health Professionals	13	24,5
Risky behavior		
Non-use of condoms in relations	15	28
Other	38	72
Self-evaluation of knowledge about AIDS		
I know very well about the subject	07	13,2
I know well about the subject	27	50,9
I know few about the subject	19	35,9
I don't know anything about the subject	00	00
Refers to meet or not the causative agent of AIDS		
Yes	20	37,8
No	33	62,2
*Refers correctly the causative agent of AIDS		
Yes	15	75
No	05	25
Refers to whether or not the forms of transmission of AIDS		
Yes	52	98
No	01	02
Have had or not classes or lectures in school about AIDS		
Yes	27	51
No	26	49
Teenagers' knowledge about the signs and symptoms of AIDS		
Yes	18	34
No	35	66
Teenagers' knowledge about the treatment to AIDS		
It's a disease that has healing.	00	00
It's a disease that has no cure, but has control.	52	98
It's a disease that has no cure and no control.	01	02
Knowledge about condom use		
Knows how to use.	34	64
Does not know how to use.	11	21
Has a doubt about the use.	08	15
Knowledge about the place to acquire condoms for free		
Theu know.	39	73,5
Do not know.	14	26,5
*Place where acquire condoms		
Basic Health Unit	38	97,4
Other	01	2,6

Source: Teenagers of the State School Doutor Carlos Albuquerque, Montes Claros, Minas Gerais, Brazil, 2011.

According to the results obtained in the research, also according to Table 1, it shows that the main sources of information about AIDS reported by those 53 students surveyed were teachers/ school (n = 36; 67,9%), followed by newspapers, magazines and books (n = 35; 66%); television and internet programs (n = 34; 64,1%); mother/father/family (n = 19; 35,8%); Friend (s) or boyfriend or girlfriend (n = 13; 24,5%); and health professionals (n = 13; 24,5%). By analyzing this variable, it was observed that adolescents had more than one source of information about the disease.

The family is the first pillar of knowledge linking the teenager to their routine doubts about the stage in passing, but most of these prefer to discuss it with others of the same age and are going through the same phase than with family members.

The school becomes the second pillar for the construction of this knowledge, but it should encourage family interaction with this teenager. The media today has much important information for student growth to complement the existing learning; however, frequent contact with the media can bring harmful long-term consequences on adolescent's life, such as early start of sexual practices.

Note that health professionals are little sought after by teenagers for any clarification, service or professional consultation. Teenagers just looking for a Health Unit or participate in educational groups with teenagers addressing issues of sexuality and sexual education.

The most preferred risk behavior by adolescents was intercourse without condom use (n = 15) (Table 2). The other behaviors or conditions cited were: multiple sexual

partners; drug user; homossexuality; relationship with sex workers or with unknown partners; be pregnant or young.

According to the data, most of the adolescents (50,9%) guarantee knowledge about AIDS, followed by 33,9% who know little about the disease. Other 13,2% of adolescents had a significant percentage share accounted know very well about it. Although 37,8% of students (n = 20) claimed to know the causative agent of infection, of these, only 15 answered correctly the causative agent of disease, namely HIV. Regarding the modes of transmission of AIDS, 98% of participants surveyed said they know them and 51% reported that they have had class or talk at school about AIDS (Table 2).

The perception of symptoms at the beginning is very difficult, because the virus can take up to 10 years to develop it and the infected person to remain asymptomatic for a long time. According to Table 2, the most researched adolescents (n = 35; 66%) reported no knowledge about the manifestation of the infection and only 34% (n = 18) said meeting the clinical symptoms of the disease. The signs and symptoms of AIDS cited more often by students were weight loss followed by weakness, "lumps" in the private parts and low immunity of the organism.

According to Table 2, 98% of students agreed in stating that AIDS has no cure, but it has control. Of all adolescents surveyed, only one student (2%) responded that AIDS is a disease that has no cure but a palliative control. Even today, the best method of prevention of this disease is the use of condoms. After the infection, the patient begins to use antiretroviral drugs that decrease the reproductive process of the virus within the body considering the fact that there is still no specific vaccine to fight this disease still so neglected.

When asked if they know how to insert and remove the condom correctly, the majority (64%) of the adolescents referred know, 21% said they did not know and 15% who have doubts. About where to get condoms for free, 73,5% of students said they know, and 97,4% of these mentioned health facilities.

Table 3. Distribution of students according to their knowledge about the transmission of HIV/AIDS. Montes Claros (MG), Brazil, 2011.

Ways of transmission	So takes		So does not take		I don't know		Total	
	n	%	n	%	n	%	n	%
By handshake, hug or kiss on the cheek of the person.	01	02	52	98	00	00	53	100
Having sexual intercourse (vaginal, oral, anal) with the infected partner and without a condom.	53	100	00	00	00	00	53	100
Studying or working with people with AIDS.	00	00	49	92,5	04	7,5	53	100
In toilets or bus seats.	06	11,4	30	56,6	17	32	53	100
Through the use of the same needle and syringe programmes or instruments that cut and/or pierce, non-sterile tattoos and piercings that infected people have used.	50	94,3	00	00	03	5,7	53	100
A mother infected for the child during pregnancy, childbirth or breastfeeding.	34	64	10	19	09	17	53	100
Through the use of glasses, plates, cutlery and water fountains, after using for a person infected.	08	15	35	66	10	19	53	100
Through insect bites.	10	19	27	51	16	30	53	100
Using alone, injection drug use with disposable syringes.	14	26,4	30	56,6	09	17	53	100
Donating blood at collection stations that obey the rules necessary to carry out the collection.	14	26,4	34	64,2	05	9,4	53	100
In sexual intercourse (vaginal or anal sex) with a condom.	02	3,8	46	86,6	05	9,4	53	100
Through contact with the infected people cough or sweat.	04	7,5	37	69,9	12	22,6	53	100
During the use of collective swimming pools.	01	1,8	37	69,9	15	28,3	53	100

Source: Teenagers of the State School Doutor Carlos Albuquerque, Montes Claros, Minas Gerais, Brazil, 2011.

In the case of routes and modes of transmission, Table 3 confirms that most of the respondents have knowledge about the mode of transmission of AIDS, but others do not yet have sufficient information when reporting that transmission can occur through toilet seats or bus, by insect bites, donating blood, contact with sweat or coughing, using cups, plates, cutlery and drinking troughs and for the use of collective pools. The form of AIDS transmission best known for adolescents was through sexual intercourse (vaginal, oral and anal) with infected partner without using a condom (n = 53, 100%), followed by the sharing of needles, syringes and other sharps (n = 50; 94%) and vertical route, ie from mother to child through pregnancy, childbirth or breastfeeding (n = 34; 64,1%).

Table 4. Distribution of adolescents according to their knowledge about the importance of using latex male condom. Montes Claros (MG), Brazil, 2011.

Statements	I agree		I disagree		Total	
	n	%	n	%	n	%
Teens should use a condom in all sexual relations.	52	98	01	02	53	100
If the person is making use of the pill, IUDS or cum off there is no need to use a condom.	03	06	50	94	53	100
The condom is the most known and used to protect them from HIV infection during sexual intercourse.	53	100	00	00	53	100
Teenagers should only use the condom in some sex, for example, when you don't know well the partner.	10	19	43	81	53	100
Condom does not prevent AIDS.	09	17	44	83	53	100

Source: Teenagers of the State School Doutor Carlos Albuquerque, Montes Claros, Minas Gerais, Brazil, 2011.

About the importance of condom use, Table 4 clarifies that teenagers have better informed as this purpose, ie 98% agree that condom use should be in all sexual relations; 94% disagree that even if the partner uses another method of contraception condom use is dispensable; 100% agree that the condom is the best known method and protects against HIV; 81% disagreed that condoms should only be used in some sex, as when one does not know well the partner; and 83% disagree that the condom does not prevent AIDS.

Some teens are still in doubt as to the relationship of condoms to prevent AIDS or any other STDs. The condom is still the only method in which it prevents AIDS, and there is no vaccine or medicine that definitely cures the disease.

DISCUSSION

In a survey of female adolescents enrolled in the fifth grade of elementary school and first year of high school they showed that the mother and father are the main source of information about sexuality, followed by friends, brothers and close relatives, contrary to the study.[6] As results of this study obtained with an average age of students older than 17 years and three months old, show that the first two sources of information for students about STD/AIDS are the school and television and secondly brochures and family.[7]

The teenager is seen in the context of public health policies, as vulnerable, because of being in a stage of discoveries and challenges of experiences and different social expectations and also find that the damage caused by unprotected sex "will not happen to them". Therefore it is extremely necessary to be educated about the subject, from different sources, and the conversation about sexuality should start at home and at school.[8] Acquired Immune Deficiency Syndrome known as AIDS or AIDS is caused by HIV, the Human Immunodeficiency Virus.[9] In a survey with 221 teenagers about the knowledge of AIDS, 86,6% of respondents said that AIDS is a disease caused by a virus, HIV.[10]

The main routes of HIV infection are 5: sexual, which occurs when there is anal penetration, vaginal and oral sex without using condoms. The risk is increased in accordance with the frequency of exposure, presence of STD, existing amount of virus in the source partner (viral load) and cellular defense of the contact system; blood, when associated with injecting drug use, due to sharing of syringes and needles. The transmission by transfusion of blood and blood products is becoming smaller in countries that use blood control methods, such as Brazil adopting control measures in blood banks such as mandatory testing of donor blood sample; vertical, which is in the child's exposure to HIV during pregnancy, childbirth or breastfeeding; and occupational, to occur through sharps accidents infected with HIV, contact with infectious body fluids (blood, vaginal secretions, sperm, etc.).

HIV is present in the vaginal secretions, semen and blood, through the skin or survives outside the organism, the environmental or surface. So one cannot catch HIV in the embrace, kissing or shaking hands, in the pool, toilet or bus seats, the glasses, the cutlery, in the gutters, in the cough, by insect bites, sweat, social life day-to-day or blood

donation when they are followed all the recommendations and specific rules for this procedure.[5] It is noticed that most teens recognize the importance of condoms to prevent AIDS. For the prevention of infection by HIV are recommended strategies to promote and encourage the use of male and female condoms in all sexual relations, regardless of whether it is associated with another contraceptive method as the only method to prevent infection by the virus during sexual intercourse.[11]

The high number of students with doubts and who do not know how to properly use condoms suggests the inclusion of workshops in schools that can contribute in teaching that both contraceptive and preventive method of STDs, and there is no evidence that it encourages the teenager to sex.[6] Generally women have more questions than men regarding the use of condoms. What can leave them at a disadvantage at the time of the sexual act or induce the partner's motivation to use condoms.[12] The treatment of infection is carried out with a combination of antiretroviral drugs that do not promote the cure, but decrease the amount of virus in the body, increasing the defense cells of the body and the survival of patients, providing them with better quality of life.[13]

Antiretroviral therapy (ART) in HIV-positive individuals does not characterize an emergency and should not be started before the necessary clinical and laboratory evaluations are conducted to determine the level of existing immunodeficiency as well as the risk of progression. It is essential that this decision also consider the patients' desire to treat, their understanding of the changes that treatment can bring to their life and commitment that will be required for proper acceptance to treatment.[14]

HIV infection and its expression can be divided into three phases[5]: acute or primary phase - usually the time of exposure to HIV and the onset of signs and symptoms 02 is the 08 weeks. Symptoms can occur during peak viremia and immune activity, the most common being fever, lymphadenopathy (increase of nodes), pharyngitis, rash erythematous maculopapular. In some cases occurs myalgia (muscle pain) and arthralgias, or hepatosplenomegaly framework; or asymptomatic latency phase - after the acute phase the person goes through a period which does not present any clinical manifestation and can last for months or years. On average, its duration is of 10 years. At this stage we can already identify virus antibodies in the bloodstream, by laboratory tests. The tests should not be performed before the asymptomatic phase, because they can provide false negative result; and symptomatic phase - is characterized by decreased immune resistance of the individual. Initial signs and symptoms may occur: weight loss, fatigue, night sweats accompanied fever, which can indicate the presence of opportunistic disease such as tuberculosis.

Currently there is no risk group of distinction and no risk for becoming infected with HIV. At the beginning of the AIDS epidemic, because of the disease reach over the injecting drug users, gay men and hemophiliacs, they were considered risk groups. Currently not said risk group but risky behavior, as the virus spread in general, no longer focusing only on those specific groups. It is considered a risk behavior for HIV infection intercourse (homosexual or heterosexual) with an infected person without using condoms; the sharing of syringes, especially in injecting drug use; and reuse of sharps with the presence of blood or fluids contaminated by HIV.[15]

CONCLUSION

Teenagers show knowledge with respect to various forms of transmission of infection, demonstrated recognize the importance of condom use and know that AIDS is a disease that has no cure but it has control. Most of the teens surveyed do not know the causative agent of AIDS, but said ignore the manifestation of the disease. It is worrying to note that some teenagers have questions or do not know all the possible ways of transmission of infection.

In general, teenagers often do not have extensive knowledge about AIDS, which connected to the particular characteristics of this age group, makes them vulnerable to infection by infection. Because of this, it is essential that young people achieve enough information about this DST in order to facilitate their choices and decisions.

Thus, the research reinforces the importance of health education implementation targeted to this audience, developed both within the family, as by schools and health facilities, it is essential for health professionals, particularly nurses who have pedagogical skills for such action. It recommends new studies exploring more deeply the theme and can provide subsidies for possible interventions.

REFERENCES

1. Brasil. Ministério as Saúde. Secretaria de Atenção à Saúde. Departamento de Ações Programáticas Estratégicas. Marco teórico e referencial: saúde sexual reprodutiva de adolescentes e jovens [Internet]. Brasília; 2006. Available from: http://portal.saude.gov.br/portal/arquivos/pdf/marco_teorico_referencial.pdf

2. IBGE. Instituto Brasileiro de Geografia e Estatística. Contagem da população. 2007.

3. Villela W, Doreto D. Sobre a experiência sexual dos jovens. Cad Saúde Publica [Internet]. 2006 [cited 2010 Oct 2];22(11):2467-72. Available from: http://www.scielo.br/pdf/csp/v22n11/21.pdf

4. Souza MM, Brunini S, Almeida NAM, Munari DB. Programa educativo sobre sexualidade e DST: relato de experiência com grupo de adolescentes. Rev Bras Enferm [Internet]. 2007 [cited 2010 Sept 10];60(16):102-5. Available from: http://www.scielo.br/pdf/reben/v60n1/a20v60n1.pdf

5. Brasil. Ministério da Saúde. Secretaria do Estado de Saúde de Minas Gerais. Atenção à saúde do adulto: HIV/AIDS [Internet]. Belo Horizonte: SAS/MG, 2006. Available from: http://www.fasa.edu.br/images/pdf/Linha_guia_hiv_aids.pdf

6. Romero KT, Medeiros EHGR, Vitalle MSS, Wehba J. O conhecimento das adolescentes sobre questões relacionadas ao sexo. Rev Assoc Med Bras [Internet]. 2007 [cited 2010 Oct 20];53(1):14-9. Available from: http://www.scielo.br/pdf/ramb/v53n1/12.pdf

7. Camargo BV, Botelho LJ. AIDS, sexualidade e atitudes de adolescentes sobre proteção contra o HIV. Rev Saúde Publica [Internet]. 2007 [cited 2010 July 29];41(1):61-8. Available from: http://www.scielo.br/pdf/rsp/v41n1/5296.pdf

8. Camargo EAI, Ferrari RAP. Adolescentes: conhecimento sobre sexualidade antes e após a participação em oficinas de prevenção. Ciênc Saúde Coletiva [Internet]. 2009 [cited 2010 dec 4];14(3):937-46. Available from: http://www.scielo.br/pdf/csc/v14n3/30.pdf

9. Santos NJS, Tayra A, Silva SR, Buchalla CM, Laurenti R. A AIDS no Estado de São Paulo. As mudanças no perfil da epidemia e perspectivas da vigilância epidemiológica. Rev Bras Epidemiol [Internet]. 2002 [2010 July 10];5(3):286-310. Available from: http://www.scielo.br/pdf/rbepid/v5n3/07.pdf

10. Nader SS, Gerhardt CR, Nader PJH, Pereira DN. Juventude e AIDS: conhecimento entre os adolescentes de uma escola pública em Canoas, RS. Revista Amrigs [Internet]. 2009 [cited 2010 July 10];53(4):374-81. Available from: http://www.amrigs.com.br/revista/53-04/11-455_juventude_e_aids.pdf

11. Brasil. Ministério da Saúde. Secretaria de Estado da Saúde de Minas Gerais. Atenção à saúde do adolescente [Internet]. Belo Horizonte: SAS/MG, 2006. Available from: http://www.fasa.edu.br/images/pdf/Linha_guia_saude_adolescente.pdf

12. Doreto DT, Vieira EM. O conhecimento sobre doenças sexualmente transmissíveis entre adolescentes de baixa renda em Ribeirão Preto, São Paulo, Brasil. Cad Saúde Publica [Internet]. 2007 [cited 2011 Feb 9];23(10):2511-6. Available from: http://www.scielo.br/pdf/csp/v23n10/26.pdf

13. Colombrini MRC, Lopes MHBM, Figueiredo RM. Adesão à terapia antiretroviral para HIV/AIDS. Rev Esc Enferm USP [Internet]. 2006 [cited 2011 Jan 14];40(4):576-81. Available from: http://www.ee.usp.br/reeusp/upload/pdf/292.pdf

14. Brasil. Ministério da Saúde. Secretaria Executiva. Coordenação Nacional de DST/AIDS. Guia Tratamento: recomendações para terapia anti-retroviral em adultos e adolescentes infectados pelo HIV. Brasília; 2003.

15. Silva RAR, Duarte FHS, Nelson ARC, Holanda JRR. A epidemia da AIDS no Brasil: análise do perfil atual. J Nurs UFPE on line [Internet]. 2013 [cited 2014 Aug 2];7(10):6039-8. Available from: http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/4882/pdf_3678

Submission: 2015/08/02
Accepted: 2015/10/23
Publishing: 2015/12/15

Corresponding Address

Patrick Leonardo Nogueira da Silva
Avenida Doutor Sidney Chaves, 1171, Ap. 102, Bloco H
Bairro Edgar Pereira
CEP 39400-648 – Montes Claros (MG), Brazil