

BIOECOLOGICAL SYSTEMS AND ELEMENTS THAT MAKE ADOLESCENTS VULNERABLE TO SEXUALLY TRANSMISSIBLE INFECTIONS

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ABSTRACT

Objective: to understand the elements that constitute the Bioecological Model and the situations of vulnerability regarding the prevention of sexually transmitted infections and HIV/AIDS from the perspective of adolescents.

Method: a descriptive-exploratory study, with a qualitative approach, carried out between October and December 2015 with ten adolescents between 12 and 18 years of age registered in the socio-educational workshops of a non-governmental organization located in a municipality in the Western region of Santa Catarina, Brazil. Information was collected from the medical records of the adolescents and through Caroline Wang's Photovoice strategy. Hermeneutics was used for the analysis of the information with the support of the theoretical reference of the Bioecological Model of Human Development and vulnerability.

Results: bioecological systems in adolescents provide the means to learn and acquire knowledge about sexually transmitted infections and HIV/AIDS, however there are elements in these systems that collaborate with the individual, social and programmatic vulnerabilities involved in the prevention of these diseases.

Conclusion: The importance of empowering the family in relation to sexual education of their children is highlighted as a way to reduce the vulnerability of adolescents to sexually transmitted diseases /HIV/AIDS. It also highlights the need to create physical spaces of care directed at adolescent health which receive adolescents and provide opportunities to be listened to and to provide dialogue between them and the health professionals. It is considered that the study highlights important points that can be included in adolescent health care strategies from the perspective of vulnerabilities and the bioecological systems in which they live.

DESCRIPTORS: Adolescent. Sexually Transmitted Diseases. Acquired immunodeficiency syndrome. Health Vulnerability. Nursing.

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SISTEMAS BIOECOLÓGICOS E ELEMENTOS QUE VULNERABILIZAM ADOLESCENTES FRENTE ÀS INFECÇÕES SEXUALMENTE TRANSMISSÍVEIS

RESUMO

Objetivo: conhecer os elementos que constituem o Modelo Bioecológico e as situações de vulnerabilidades no campo da prevenção das infecções sexualmente transmissíveis e HIV/AIDS na perspectiva de adolescentes.

Método: estudo descritivo-exploratório, com abordagem qualitativa, realizado no período de outubro a dezembro de 2015 com dez adolescentes com idades entre 12 e 18 anos inseridos nas oficinas socioeducativas de uma organização não governamental, situada em um município da Região Oeste de Santa Catarina, Brasil. As informações foram coletadas nos prontuários dos adolescentes e por meio da estratégia *Photovoice* de Caroline Wang. Para a análise das informações, utilizou-se a Hermenêutica com o suporte do referencial teórico do Modelo Bioecológico do Desenvolvimento Humano e da Vulnerabilidade.

Resultados: os sistemas bioecológicos dos adolescentes oportunizam meios para construir saberes sobre o cuidado com as infecções sexualmente transmissíveis e HIV/AIDS, no entanto há elementos nesses sistemas que colaboram com as vulnerabilidades individuais, sociais e programáticas envolvidas na prevenção destas doenças.

Conclusão: destaca-se a importância de empoderar a família para a educação sexual dos filhos como uma forma de reduzir as vulnerabilidades dos adolescentes perante a infecções sexualmente transmissíveis/HIV/aids. Adverte, ainda, para a necessidade de criar espaços físicos de cuidado à saúde dos adolescentes que oportunizem o acolhimento, a escuta e o diálogo entre eles e os profissionais de saúde. Considera-se que o estudo destaca pontos importantes que podem ser incluídos nas estratégias de cuidado à saúde dos adolescentes sob a ótica das vulnerabilidades e dos sistemas bioecológicos em que vivem.

DESCRITORES: Adolescente. Doenças Sexualmente Transmissíveis. Síndrome da Imunodeficiência Adquirida. Vulnerabilidade em saúde. Enfermagem.

SISTEMAS BIOECOLÓGICOS Y ELEMENTOS QUE VULNERABILIZAN ADOLESCENTES FRENTE LAS INFECCIONES SEXUALMENTE TRANSMISIBLES

RESUMEN

Objetivo: conocer los elementos que constituyen el Modelo Bioecológico y las situaciones de vulnerabilidades en el campo de la prevención de las infecciones sexualmente transmisibles y VIH/SIDA en la perspectiva de adolescentes.

Método: estudio descriptivo-exploratorio, con abordaje cualitativo, realizado en el período de octubre a diciembre de 2015 con diez adolescentes con edades entre 12 y 18 años insertados en los talleres socioeducativos de una organización no gubernamental, situada en un municipio de la Región Oeste de Santa Catarina, Brasil. La información fue recolectada en los prontuarios de los adolescentes y por medio de la estrategia *Photovoice* de Caroline Wang. Para el análisis de las informaciones, se utilizó la Hermenéutica con el soporte del referencial teórico del Modelo Bioecológico del Desarrollo Humano y de la Vulnerabilidad.

Resultados: los sistemas bioecológicos de los adolescentes oportunizan medios para construir saber sobre el cuidado con las infecciones sexualmente transmisibles y el VIH/SIDA, pero hay elementos en esos sistemas que colaboran con las vulnerabilidades individuales, sociales y programáticas involucradas en la prevención de estas enfermedades.

Conclusión: se destaca la importancia de empoderar a la familia para la educación sexual de los hijos como una forma de reducir las vulnerabilidades de los adolescentes ante las infecciones sexualmente transmisibles /VIH/sida. Advierte, además, para la necesidad de crear espacios físicos de cuidado a la salud de los adolescentes que oportunicen la acogida, la escucha y el diálogo entre ellos y los profesionales de la salud. Se considera que el estudio destaca puntos importantes que pueden ser incluidos en las estrategias de cuidado de la salud de los adolescentes bajo la óptica de las Vulnerabilidades y de los Sistemas Bioecológicos en que viven.

DESCRIPTORES: Adolescente. Enfermedades de transmisión sexual. Síndrome de Inmunodeficiencia Adquirida. Vulnerabilidad en salud. Enfermería.

INTRODUCTION

Adolescence is recognized by the World Health Organization (WHO) as the period of human growth and development that occurs after childhood and before adulthood, between the ages of 10 and 19 years. Biological processes drive many aspects of this growth and development with the onset of puberty, which marks the passage from childhood to adolescence. The biological determinants of adolescence are universal, however, the duration and defining characteristics of this period may change over time according to the cultures and socioeconomic situations experienced. It is one of the most critical transitions in life and is characterized by a rate of growth and changes starting from childhood.¹

In the midst of this process of transition and change, adolescents are awakened to sexuality and sexual activities, natural phenomena of human beings that can lead them to situations of risks and vulnerabilities such as Sexually Transmissible Infections (STIs), Human Immunodeficiency Virus (HIV) and, consequently, the Acquired Immune Deficiency Syndrome (AIDS), because they consider themselves to be healthy, invulnerable, obtain precarious information and explore early unprotected sexual activities.²

In this line of thinking, scholars³ emphasize that the early onset of sexual intercourse may lead to greater vulnerability to STIs, and it is necessary to think of educational strategies aimed at minimizing negative health outcomes related to STIs. To reduce this situation, it is necessary to increase knowledge about STIs through campaigns aimed at the prevention of these diseases and, above all, health promotion.

The occurrences of STIs have increased considerably in young people, reaching 56.6% of Brazilians between the ages of 15 and 24, a fact perhaps explained by the disuse of condoms. As a result, in the last decade, the rate of HIV infection has doubled in this population, from 2.8 cases to 5.8 cases/100,000 inhabitants, reaching 21.8 cases 100,000 inhabitants in the 20-24 age group. This evidences that young people are more vulnerable to HIV and need access to knowledge and health services.⁴

To understand these scenarios involving adolescents, support was sought from the The Bioecological Theory of Human Development,⁵ which is based on the fusion of four interrelated nuclei: person, process, context and time, understood as elements that influence the cycles of human life. The

person is a growing, dynamic entity that continuously and progressively interacts with the environment in which it lives and restructures it. The process involves particular forms of interaction between organism and context. The context corresponds to the ecological environment, conceived as a series of concentric structures, which contains a developing individual in its interior and encompasses a set of interrelated systems similar to those of Russian dolls, named: microsystem, mesosystems, exosystem, macrosystem, chronosystem. Time consists of three spheres: the micro, meso and macrotime. The microtime corresponds to what is occurring during a given activity or interaction; mesotime involves the frequency in which activities and interactions occur in the immediate environment of the developing person; the macrotime refers to the variations that occur in the processes of development, arising from the trajectories of the singular historical events when the developing individuals are different ages.⁵

In addition to this referential, the Conceptual Framework of Vulnerabilities,⁶ was also adopted aiming to highlight ways to provide nursing care directed at adolescent sexual health. The term vulnerability is in line with the possibilities of exposing people to illness, an expression that has been used in the HIV/AIDS context and encompasses vulnerabilities at the individual, social and programmatic levels.⁶

Individual vulnerabilities⁶⁻⁷ are associated in the context of STIs and AIDS, personal attitudes to the diseases; knowledge about STIs and AIDS; religious beliefs; sexuality and the ability to negotiate safe sexual practices. The social vulnerabilities,⁶ are interlinked to the economic structure, public policies, especially education and health, culture, ideology and gender relations.⁷ The programmatic vulnerabilities have relations with the actions of programs and policies aimed at prevention and health care, being loco-regional and national, which must be made available in an effective and democratic manner.⁶⁻⁷

Although their references have different approaches, they are complementary and therefore cannot be considered separately, as adolescence and STI/AIDS are complex problems. Thus, it requires health professionals, and especially nursing professionals, to break away from fragmented care practices, as well as to consider the multiple dimensions involved in health care systems, in addition to considering the health-disease process and the human condition itself.⁸

This study was based on the research question: what are the elements that constitute the bioecological systems, the situations of vulnerability regarding the prevention of STIs/HIV/AIDS from the perspective of adolescents. To answer this question, the following objective was formulated: to understand the elements that make up the bioecological systems and situations of vulnerability regarding the prevention of STI/HIV/AIDS from the perspective of adolescents. The relevance of the study is to collaborate in the improvement of adolescent sexual health strategies, which are aimed at the prevention of STI/HIV/AIDS.

METHOD

A qualitative, descriptive-exploratory study conducted in a non-governmental organization (NGO), located in a municipality in the western region of Santa Catarina, Brazil, which develops socio-educational work for adolescents in the form of workshops. After initial contact with professionals of the NGOs working in socio-educational workshops, they were asked to recommend adolescents according to the following inclusion criteria: between 12 and 18 years of age, as established in the Child and Adolescent Act⁹ and to be included in the socio-educational workshops of the NGO. The exclusion criteria were adolescents with verbalisation difficulties, unable to perform the chosen data collection. 10 out of the 20 adolescents selected by NGO professionals were chosen and were selected to be the informants of the study, as recommended by the strategy Photovoice strategy.¹⁰

The production of data occurred between October and December 2015, in the medical records of the adolescents in the NGO with the intention of understanding their bioecological models. The information specific to the proposed theme was collected by means of individual interviews that lasted for an average of 1 hour and 30 minutes each. In order to carry out the interviews the steps of the Photovoice strategy were followed,¹⁰ which were adapted to the study.

The original steps are: recruitment of a group of Photovoice participants; introduction of the participants to the Photovoice methodology and group discussions to define themes; obtain informed consent; creation of a theme to produce photographic images; distribution of cameras to the participants and assess the use of the cameras; setting time for the participants to produce photos; meeting with them to discuss the photographs; opportunity to tell stories, coding, elaborate themes from their photographs, plan with the participants regarding a format for sharing photos and stories with political representatives or community leaders.

The steps of the study adapted from Photovoice¹⁰ were; Step 1 - meeting with the adolescents, parents or guardians in order to present and clarify the study proposal and obtain the Assent Forms signed by the adolescents and the Informed Consent Forms signed by the parents or guardian.

Step 2 - meeting with the adolescents to present the Photovoice strategy and theme definition. After discussions, the chosen theme was prevention of STI/HIV/AIDS. The cameras were then distributed. Two cameras were distributed to two teenagers at a time, each one receiving one of the cameras and keeping it for a week in order to produce the photographic images as they wished. Together with the cameras, a document was made available instructing them how they should produce the photographs emphasizing that they could not photograph human beings. When the cameras were returned the images were saved on the researcher's computer and deleted from the cameras in order for the camera be passed on to two other adolescents. Step 3 - the individual interviews commenced which were held in a room at the NGO, which always occurred when the cameras were being returned. The adolescent was asked to select three photos among the ones that they had taken and encouraged to speak about each individual photo, instigated by the questions: What do you see here about STI/HIV/AIDS? What is really happening here related to STI/HIV/AIDS? How does this relate to our lives? Can this cause problems to your health or the health of others? Why is there such a situation? What can be done about this? At the end of each individual interview, the data extracted from the medical records were presented to the adolescents, so that they could validate and update the information whenever they wished. It should be noted that all individual interviews were recorded.

The last step, as indicated by the Photovoice strategy,¹⁰ is to plan with participants a format for sharing photos and stories with political representatives or community leaders, this was not carried out as the NGO was finishing semester activities and the adolescents had pre-organised activities, meaning that there was insufficient time to complete this step. This activity did not influence the results of the study, however, it is believed that it could contribute to the leaders becoming aware of the presented reality and, perhaps, stimulate social and programmatic changes in the community where the adolescents are inserted.

The steps of the Hermeneutics¹¹ were followed for the analysis of the information, as follows: organization, transcriptions and initial reading of the material; distancing, abstaining from beliefs, judgments and prejudices about the emerged facts; structural analysis, through the re-reading of information, in a critical way and progression in the meanings of information; identification of the metaphor, moment of unveiling and hermeneutic interpretation; appropriation, the unveiling of the world of adolescents in relation to their vulnerability to STI/HIV/AIDS.

The themes that emerged were: elements that constitute the bioecological systems of adolescents; elements that constitute their individual, social and programmatic vulnerabilities. These were discussed based on the references of the Bioecological Model of Human Development and

Vulnerability. The study complied with Resolution n. 466/2012, of the National Health Council, and was approved by the Ethics Research Committee. In order to identify the informants, the letter A was used for teenager, followed by a number corresponding to their interview (e.g. A1).

RESULTS

The study participants consisted of ten adolescents, six males and four females, aged between 13 and 16 years. All are single. Seven reside with their mother, father and brothers (in this group there is one stepfather), one with their grandmother and aunt, one with their mother, one with their father and brothers. The monthly income ranged from one R\$954 to R\$ 2,862 with an average of 4.9 people per family living on this income. All adolescents study in public schools, eight are in elementary school (seven unfinished and one finished) and two are in high school (unfinished).

Elements that constitute the Bioecological Systems of adolescents

Adolescents are growing and developing in a context with social, cultural and economic events in the different bioecological systems interconnected with each other. The microsystem is composed of family contexts, the mesosystem of interrelationships with friends, neighbours, community, school, religious orders, the exosystem is related to the organizational entities that are involved in the adolescents' lives, the NGO was highlighted in this system. The macrosystem is linked to the educational aspects and health services, the chronosystem constitutes temporality linked to the occurring events in the life of adolescents. The experiences of the adolescents in these bioecological systems are observed in the following statements:

I like going for a walk, I go to the mall, cinema, I visit relatives, I go out with my mother, I travel, I go out, I go out with my friends [...], I study sometimes, I go to church every now and then. I like to go to the ONG. [...], I do not like fake people (A1).

I wake up in the morning, I wash myself, I go to school, then I go home, I eat lunch, I go to the NGO in the afternoon. I like to play ball every night in the gym, I go out with friends, I go to the mall, I like to have ice cream, and I go to my church (A4).

I am cheerful, playful, I play ball with friends, walk around a lot, I do not like to stay at home. I like to have friends. I usually go to school, the NGO, the church and the health clinic (A7).

In this bioecological micro universe, the adolescents experienced situations of individual vulnerabilities, arising from the educational aspects regarding the prevention of STIs/ HIV/AIDS.

Sexually transmitted diseases are caught by having sex, tattooing at home, needles found on the floor, broken glass if there is blood on it, and sometimes you can get HIV and AIDS (A3).

I do not know what condoms have got to do with our lives. I think you might get sick (A4).

Sexually transmitted diseases are types of viruses, transmitted through various ways, having sex. You get AIDS gets by having sex, but there are people who that don't get it (A5).

Intrafamilial conversations about sexuality and sex are limited and permeated by embarrassment.

[...] I talk a lot with my family, my uncles, my aunts, but many of them are embarrassed. [...]. There are always programs on the television talking about young people who have these diseases. Some parents don't talk much with their children, perhaps because they are less experienced. [...] there are parents who think that their children are going to class, they are

learning enough about these diseases, but they have to learn at school and at home. That's why I talk to my mother, my aunt. They understand a lot,[...] they have gone through many things (A6).

I do not speak at home about these things because I'm embarrassed. When I have questions I ask my teacher, but I'm embarrassed to ask her [laughs] (A7).

The school and the NGO are social segments that adolescents visualize in education about STIs/HIV/AIDS.

This photo is about the sex act. If they are having sex without a condom, they can get sick. They are not protecting themselves against disease. This can spread AIDS. I just remember this one, because in the school they speak more about it, the hardly never talk about the others (A7).

[...] the biology teacher talks about it. [...] she says that when I have sex I always have to use a condom and protect myself (A8).

Here at the NGO there are always university girls talking about drugs, AIDS and these diseases. [...] I learned a little, but I can't remember the names, I know you get a scab on the penis, in the vagina (A5).

Integrated in the micro and mesosystems, the other bioecological systems, exo, macro and the chronosystem of the adolescents were observed, and, in this group, the social and programmatic vulnerabilities were identified. For example, the low salaries of providers, school standards, poor access to health goods and services, disorganized waste disposal in the streets, widespread use of drugs in the neighbourhood, socio-cultural events and phenomena, the stages and stories of life.

I've heard my friends complain that they had no condom at the clinic [referring to the UBS]. And they did not have the money to buy [...] I don't know what they did. I do not think they protected themselves (A7).

Here in the neighbourhood there are a lot of syringes thrown on the ground. I found this one near my house [...] here near the NGO as well. People use it for drugs. [...] then, when they use drugs they pass the syringe to each other, [...] they use it and throw it the street and someone can get infected with this AIDS disease (A3).

Elements that constitute the individual, social and programmatic vulnerabilities of adolescents

The sense of shame is an element immersed in the life contexts of adolescents, and is associated with the individual vulnerabilities that surround them. It is present within the family, school and health services when there are conversations or orientations about STI/HIV/AIDS.

On television, I've seen them say that they have to use the condom to avoid getting sick. I ask the science teacher, and she answers me. Now we are studying the human body [...] about sex, and she says to protect yourself, unless you want to have a child. My parents and the health agent also always warn about protection, be careful, but I'm embarrassed to talk about it with them (A5).

Many people are ashamed to go to the health clinic to get condoms. Because there is always a lot of people there. We should get to the counter and get a condom, I can reach the counter, I'll take it and keep it, and I leave the clinic. I would rather not be seen. People stare, it makes

people feel embarrassed. It would be good if there were a girl who could deliver the condoms to us discreetly (A3).

Associated with the feeling of shame, there are elements related to the lack of financial resources and the lack of knowledge about the actions of the health services that reinforce their social and programmatic vulnerabilities.

How do I know if you have to pay or not? I would rather be given them than go there and ask (A8).

In addition to the above, there is also the scenario of drugs and the waste resulting from drugs, as well as used condoms and tattoos carried out in unhealthy conditions on the streets of the neighbourhood where they live which represents the shortcomings of anti-drug and waste collection policies and programs that act together with the social and programmatic vulnerabilities surrounding them.

I see a lot of people here in the neighbourhood [...], walking around with joints in their hands, we see that many of them can't even walk on the street because they're so stoned. They even offer some to us on the street (A2).

I think people should be careful where they throw away the syringes. They sometimes throw them away in busy places, and then a person comes along and the needle is facing upwards and can pierce their foot and then get HIV without doing anything (A3).

DISCUSSION

In the present study, the results show that the bioecological systems⁸ of human development constitute important environments for the growth and development of adolescents. The micro-system⁵ is considered the primary driving force that promotes the construction of its knowledge. It has the function of instructing and providing experiences related to sexual matters. However, there are weaknesses in the diffusion of knowledge in the family environment, due to the constraints that are established when they are approached. Even so, the teachings transmitted by parents, legal guardians or family representatives are constructed and support the behaviour of adolescents regarding STIs/ HIV/AIDS.

Likewise, the mesosystem⁵ is considered a laboratory, which reveals everyday life situations associated with STI/HIV/AIDS problems that provoke reflections in adolescents and contribute to the awareness regarding the prevention of these diseases. In this system, there is a doctrine of teachings constructed and shared through the interrelationships⁵ with friends, neighbours, schools, religions and NGOs that strengthen their sexual care behaviours.

In these environments, individual vulnerabilities coexist, although they are described separately in this study, it is understood that they are interconnected and dependent on the others, and are therefore not separated from social and programmatic vulnerabilities.^{6,8} Individual vulnerabilities are based on the limited information that adolescents have on STI/HIV/AIDS due to the fragmented education that occurs in the family environment and in school due to the poor preparation and embarrassment of parents and teachers.

Scholars¹² emphasize the importance of creating an integrated network among parents and educational and health segments, which include expanded information in the context of adolescent sexual education with a view to reducing possible health problems for this population. Other authors¹³ stated that, in relation to preparing adolescents to have sex, the school has presented difficulties in the establishment of a circuit of interactions with the family system. It has reproduced thinking based

on conservative components belonging to the dominant order, full of paradoxes. It does not consider sexuality as political-ideological, treating sex education in a biologized and medicalized way.¹⁴

Considering this poor preparation, this study identified a culture of fragmented information directed at adolescents about STIs/HIV/AIDS, impairing their learning and, of course, possibly effecting their ability to apply appropriate information to practice.

These issues include the feeling of shame, an element strongly expressed by adolescents. It is associated with fear and insecurity of exposing themselves to others; the limited information on STI/HIV/AIDS; morality and taboos implanted by culture. In this context, it was identified that these factors limit adolescents in the prevention of STIs/HIV/AIDS, since they stop looking for the health services, as well as other people from their conviviality, who could solve doubts, pick up condoms and take advantage of other assets and services provided by health services. Due to this feeling of shame, the adolescents highlight the importance of providing an individualized space in the health environments destined to them.

Therefore, it is necessary to take a closer look at this manifestation, which requires special attention from health professionals, since the individuals to whom the health care is destined to have a prior reading of the world, based on their life experiences and their socio-cultural contexts.¹⁵ A study¹⁶ discussed the importance of providing a welcoming environment to adolescents through the active search and dialogue between health services and schools, since the school space is a great place for frequent and continuous contact with adolescents, and can be established in an environment conducive to the development of a healthy lifestyle.¹⁷

In this configuration, the other bioecological systems of human development were observed:⁵ exo, macro and the chronosystem of adolescents, and in this set, they interact with other elements that reinforce the social and programmatic vulnerabilities of STIs/HIV/AIDS, among them, the poor access to health goods and services and the widespread drug scenarios in their bioecological systems.

Regarding access to health goods and services, researchers¹⁸ maintain that Primary Health Care (PHC) is responsible for ensuring access to the health system. Upon reaching the service, the individual may be in a vulnerable situation, but the way in which the individual is received will influence the type of relationship that they will establish with the team.¹⁵ Regarding the acquisition of condoms, a study revealed that some young people do not receive them because they are underage.¹⁹ Although health units provide the condoms for free, the delivery is considered a hostile space for the adolescents.²⁰

When sex is associated with drugs, there is strong evidence of unprotected sex, early sexual initiation, risky sexual behaviour, unwanted pregnancies, and even sexual violence.²¹ In the same line of research, a study²² highlighted risk behaviours for STIs/AIDS among schoolchildren of both sexes, with found a high prevalence of alcohol use before unprotected sexual intercourse as well as unprotected oral and anal sex.

It is believed that adolescents have a false sense of security, that nothing is going to happen to them, that everything has to be for today, peer pressure and the search for new experiences, and they find the ambiguity between reason and feeling, making them susceptible to having unprotected sex.

A glance at this scenario reveals the web of vulnerability situations involved in the drug addiction process, since the use of drugs in society encompasses social, cultural, political and educational processes. Authors²³ point out that considerations regarding vulnerability in the context of drugs are important because they help them realize that drug abuse prevention will be all the more effective when the diversity of factors linked to it are considered, especially the sociocultural dimension of the problem, therefore, the strict medical-biologizing perspective. Considering the association between the concept of vulnerability and the person's chance of being exposed to a certain risk or injury, it is evident that adolescents' coexistence with drug users makes them vulnerable at the individual level,

since coping with these situations will depend on the information they have about drugs and how they perceive themselves at risk.⁶

Drug use is a situation of social vulnerability,⁶ since it does not only result from individual but also contextual aspects, among them, the economic and social inequalities that cause greater susceptibility, depending on how many resources and accesses individuals make available to protect themselves against drugs. In the same way, it considers itself as a programmatic vulnerability situation due to the insufficient preventative actions of the State, in view of the open and visible events that happen in the neighbourhood where they reside and possibly outside it.

In this context, acting in an indirect way, the exosystem, the macrosystem and the chronosystem were visualized, printing codes and insignia based on socioeconomic issues, life stories, health and education programs and policies that are involved in situations of individual, social and programmatic vulnerabilities. In the exosystem it was identified that the NGO is an entity that exerts influence in the ways of life of the adolescents, since it plays an important role in the formation and preparation in the life of the people and professionals. Likewise, the macrosystem influences them through legislation and culture that governs the different social segments in which they are inserted such as: education, health services and programs, housing, transport, leisure and religion, among others. It is an open, wide and complex system that is spread by other bioecological systems, with an immensity of contextual plots and dissonances existing between them, which contribute to the situations of programmatic vulnerabilities in their living processes.

With such great importance, the chronosystem exercises its influence, since it is related to the numerous events, experienced in the life processes of adolescents as: self growth and development, educational constructions, social and cultural constructions, and their life stories, changes within the families (parents who separated and establish new marital relations, births and deaths); increase of material resources, urbanization of the neighbourhood where they reside; changes and adjustments in the programming of NGO activities.

The limitations of the study include the collection of data with adolescents only, with no representation from parents, educators and health professionals such as nurses, which could complement information and enrich the results. This gap opens up possibilities for further research that may contribute to the expansion of knowledge on the proposed theme.

CONCLUSION

Faced with the results of this study, the effect of the interaction between bioecological levels on the development of adolescents is remarkable. Even if they are at a greater or lesser distance from their conviviality, they contribute to the formation of frameworks that give sustainability to the arrangements and transformations, both at the individual level and in the collective level, that occur during their life cycle. In this context, there are numerous vulnerability situations that can lead to them becoming ill with diseases such as STI/HIV/AIDS;

The study highlights the importance of performing interventions with parents and/or family members as they are the sources that form the basis of the knowledge that adolescents adopt for themselves. It is believed that by empowering them and preparing them to deal with adolescent sexuality education, they can contribute to the reduction of individual, social and programmatic vulnerability situations, as well as to environments susceptible to diseases.

It is considered relevant that the health services and the schools create physical spaces in health care to receive adolescents, providing the care subjectivity - listening and dialogues – emphasized greatly by the adolescents of the study.

The potential of this research is found in the data collection strategy, since the photographs facilitated the discussion and the adolescent's development on the research objective. This technique

is recommended in studies with adolescents when it is desired to know their contextual universes and to promote health care actions in a contextualized way.

It is believed that the results of this research corroborate with other studies. It provides support both for professional nursing training and health care practices, and highlights important points that can be included in the health care strategies aimed at adolescents in the vulnerability and bioecological systems in which they live.

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NOTES

ORIGIN OF THE ARTICLE

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CONFLICT OF INTEREST

No any conflict of interest.

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