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LITERATURE REVIEW

PERFIL EPIDEMIOLÓGICO DO HIV/AIDS DO ESTADO DO PARANÁ: ESTUDO ECOLÓGICO

EPIDEMIOLOGICAL PROFILE OF THE HIV/AIDS IN THE STATE OF PARANÁ: ECOLOGICAL STUDY

PERFIL EPIDEMIOLÓGICO DEL VIH/SIDA EN EL ESTADO DE PARANÁ: ESTUDIO ECOLÓGICO

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ABSTRACT

Objective: describe the epidemiological profile or make municipalities HIV/AIDS do Paraná state. **Method**: ecological study that used as a unit of 399 municipalities Analyze you of the State of Paraná What are we operationalized Actions by the State Control Program STD/AIDS and Hepatitis deviate, do analysis or national surveillance system epidemiological profile Health in 2011. The pigtail And Analysis two occurred no given month of October 2015. **Results**: as of June 2010, were recorded 28,376 cases. As a five-speed larger number with cases were: Curitiba (10,549), Londrina (2,166), Foz do Iguaçu (1,348), Maringá (1,124) and Paranaguá (1,113). Regarding how pregnant women carrying the HIV/AIDS virus do, they reported 3,951 cases and 786 cases per vertical transmission. **Conclusion**: Framework notes is that epidemiological or non-Parana HIV / AIDS number growth presents from COM cases in the High Port Region rate.

Keywords: Nursing, Epidemiology descriptive, Acquired immunodeficiency syndrome, Ecological studies, Health profile.

RESUMO

Objetivo: descrever o perfil epidemiológico do HIV/AIDS nos municípios do estado do Paraná. **Método**: estudo ecológico que utilizou como unidade de análise os 399 municípios do Estado do Paraná nos quais são operacionalizados pelas ações do Programa Estadual de Controle da DST/AIDS e Hepatites Virais, analisando o perfil epidemiológico do Sistema Nacional de Vigilância em Saúde 2011. A coleta e análise dos dados ocorreu no mês de outubro de 2015. **Resultados**: até junho de 2010, foram registrados 28.376 casos. As cinco cidades com maior número de casos foram: Curitiba (10.549), Londrina (2.166), Foz do

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Iguaçu (1.348), Maringá (1.124) e Paranaguá (1.113). Em relação às gestantes portadoras do HIV/AIDS, foram notificados 3.951 casos e 786 casos por transmissão vertical. **Conclusão**: observa-se que o quadro epidemiológico de HIV/AIDS no Paraná apresenta crescimento do número de casos, com elevado índice na região portuária.
Descritores: Enfermagem, Epidemiologia descritiva, Síndrome de imunodeficiência adquirida, Estudos ecológicos, Perfil de saúde.

RESUMEN
Objetivo: describir el perfil epidemiológico o hacer municipios VIH/SIDA do Parana. **Método**: estudio ecológico que utiliza como unidad de 399 municipios a analizar el estado de Paraná qué somos operacionalizamos acciones para el Control Estatal de ETS/SIDA y la hepatitis, desvío de realizar el análisis o la vigilancia epidemiológica Nacional de Salud del sistema en 2011. La cola de cerdo y dos análisis no se le dio el mes de octubre de 2015. **Resultados**: en junio de 2010, se han registrado 28,376 casos. Como cinco velocidades con mayor número de casos fueron: Curitiba (10,549), Londrina (2166), Foz de Iguazú (1348), Maringa (1124) y Paranaguá (1113). En la medida en qué las mujeres embarazadas con VIH/SIDA, se notificaron 3.951 casos y 786 casos de transmisión vertical. **Conclusión**: notas marco es que o el VIH / SIDA no Parana número Crecimiento epidemiológica presenta casos COM en la región de alta velocidad del puerto.
Palabras clave: Enfermería, Epidemiología descriptiva, Síndrome de inmunodeficiencia adquirida, Estudios ecológicos, Perfil de salud.

INTRODUCTION

The first cases of Acquired Immunodeficiency Syndrome (AIDS) described in literature occurred in the United States of America (USA) in the beginning of the 1980s. [1]

At this time there was no complete understanding of the disease cause. It was presumed to be a disease related to compromised cell immunity and to sexual contact, linked to risky sexual behaviors and homo-affective relationships. In the same decade, Brazil was also hit by an HIV/AIDS epidemic which initially affected mainly homosexual and bisexual men, people who needed blood transfusions, such as hemophiliacs and, subsequently, users of injecting drugs. [2]

Brazil had its first registered case in 1982 in the city of São Paulo. The metropolitan areas of São Paulo and Rio de Janeiro were the first to have victims. From 1990, with the evolution of the outbreak, a transition in the epidemiological profile could be verified, resulting in new cases in women, children, elderly and the financially less favored. [2,3]

The HIV/AIDS epidemic represents a global, energetic and unstable phenomenon, traversing a cluster of regional sub-epidemics. It results from deep inequalities in the Brazilian society, where proliferation of HIV and AIDS reveals multiple dimensions and, in addition, progressively undergo significant

transformations in its epidemiological profile. [4]

In this context, combined retroviral therapy favors success in the treatment of HIV-infected patients, besides, commitment to treatment deserves attention, as it requires patients to follow the recommendations, what results in the performance of a more active role and consequently participation in the health care, especially by professionals. [5]

Considering the registered cases of HIV/AIDS in Brazil by region, from 1980 to 2012, the South Region registered a total of 130,942 cases, being in the second position, with 19,9% of cases. Of these, 10% of the cases are in Rio Grande do Sul, 5% in Santa Catarina and 4,9% in Paraná. Among the Federation Units, Paraná (which had its first registered case in 1984) is in the 6th position, with 31,935 registered cases.[6] The prevalence rate of HIV infection in the youngsters shows tendency to increase. It was also observed a transition of the epidemiological profile resulting in heterosexualization, feminization, pauperization and internalization of the epidemics. [7]

The nurse plays a fundamental role both in the prevention and in the treatment of the seropositive patient. Through a contextualized and participatory approach, this professional may subsidize conditions to improve individuals´ quality of life, demonstrating interest for the human being and his way of life. Their active participation in the care process and their role as a knowledge multiplier agent may transform the reality of HIV/AIDS patients. [8]

As the HIV/AIDS epidemic develops around the world, there are often transformations in the epidemiological profile of virus carriers, due to the regions of the country and the world. Therefore, it is necessary for the nursing professional to know the epidemiological profile of HIV/AIDS in the State of Paraná, so that they can provide future health actions based on the study results. Thus, the purpose of this study was to describe the HIV/AIDS epidemiological profile in the municipalities of the state of Paraná.

METHOD

This is an ecological study that used 399 municipalities of Paraná State as units of analysis. Such municipalities are operated by actions of the State Program for the Control of STD/AIDS and Viral Hepatitis, analyzing the epidemiological profile of the National Health Surveillance System in 2011. The study was not submitted to approval by the Ethics Committee since the data described are freely available in the electronic media.

The state of Paraná is located in the southern region of Brazil, it is composed of 399 municipalities and has Curitiba as its capital city. Although the state is acknowledged for the high life quality of its inhabitants and for having one of the highest Human Development indexes in the country, inequalities in living conditions and health are identified as in any other Brazilian region. [9]

This study sought the information present in DATASUS in the month of October/2015 and also in the status report by the National Health Surveillance System bulletin in the state of Paraná in 2011[11] referring to data available up to June 2010. Descriptive statistics was chosen to present the results.

RESULTS

Since then, as of June 2010, a total of 28,376 cases of HIV/AIDS have been registered in the state of Paraná. In 2009, the incidence rate was 16,5/100.000 inhabitants, a rate lower than the average of the southern region, which was 32,4, and lower than Brazil´s rate: 20,1. In 1988, the sex ratio was 7.3 men for each woman and currently this figure fell to 1.5 men for each woman, following the national trend.

Among the municipalities of Paraná, the five with the highest number of HIV/AIDS cases accumulated up to June 2010 were: Curitiba (10.549), Londrina (2.166), Foz do Iguaçu (1.348), Maringá (1.124) and Paranaguá (1.113) according to Table 1. Of these municipalities, the highest incidence, in 2009, was observed in Paranaguá (78,0/100.000 habitantes).

Table 1 – Distribution of AIDS cases accumulated up to June 2010 in the State of Paraná

MUNICIPALITY	NUMBER OF CASES
Curitiba	10.549
Londrina	2.166
Foz do Iguaçu	1.348
Maringá	1.124
Paranaguá	1.113

Source: BRASIL. National Health Surveillance System: status report: Paraná – Ministry of Health, 2011.

Regarding pregnant women with HIV/AIDS, 3,951 cases were reported in Paraná from 2000 to June 2010 and 786 cases of HIV/AIDS by vertical transmission up to June 2010. As for HIV/AIDS mortality, until 2009 there were 8,649 cases of deaths. The AIDS mortality rate in Paraná was 5/100.000 inhabitants.

DISCUSSION

In Brazil, transformations are being registered regarding the epidemiological profile of HIV/AIDS patients, and among the most significant ones are feminization, heterosexualization, internalization, aging, low education and pauperization[11] There is a close correlation between unfavorable socioeconomic indicators and increased incidence of HIV/AIDS. Individuals with low levels of education, low income and who live in areas with low human development index have been the most affected by the disease. [12]

A study conducted in a city in the heartland of Minas Gerais state clearly demonstrates a tendency towards internalization of HIV epidemic[13] , a tendency that is also observed in Paraná. At the rural areas, in the so-called 'corners of the country', where it lacks health information and adequate assistance, there are several people carrying the virus. This indicates that it is present in the population with less access to health resources, to information and facing social, intellectual and economical disadvantages. Many of them often get infected in the large cities and return to the rural areas carrying the virus with them. They eventually contribute, in a very significant way, to the spread of HIV/AIDS in an irreparable way. [14,15]

Based on the results of a survey conducted in the Northwest of Paraná, of the 29 municipalities in the region, 6 of them had no confirmed cases of HIV/AIDS in the years ranging from 1989 and 2005, and in 3 municipalities there was only one confirmed case in each of them. The inexistence of low number of notifications contradicts this tendency to internalization of the HIV/AIDS epidemic, but this result may indicate both the real absence and the underreporting and export of cases. [16]

Another study with a sample of 497 HIV/AIDS patients carried out in a University Hospital of Londrina-PR between 2002 and 2006, where 62% of participants were men and 38% were women, reveals a low level of education: 3,02% illiterate, 55,33% did not conclude elementary school; 10,46% had concluded elementary school. These patients were all from the state of Paraná: Londrina, Jaguapitã, Cambé, Ibiporã, Rolândia, Arapongas and other nearby localities. As for family income, 41,4% had income of up to 1 minimum wage; 26,2% of 2 minimum wages. Such data clearly demonstrates that the profile of the HIV/AIDS patients of Paraná is not different from the reality perceived throughout the national territory, where

most cases of HIV/AIDS are closely linked to low education and less favored economic classes. [15]

The increasing number of HIV/AIDS is surprisingly among women and is due to biological reasons and mainly because they are treated unequally in political, cultural and socioeconomic terms, with lower access to material goods, social protection and education, thus constituting a more vulnerable group. The sex ratio has been decreasing progressively, what reveals, in a solid way, the expansion of the epidemic among the female gender. In addition, some women find it difficult to negotiate condom use with partners, exposing themselves to the risk of contamination by the virus. [14,17]

Significant growth in HIV/AIDS incidence rate among women over 50 years old is in agreement with a study carried out in Pernambuco from 1990 to 2000. [18] The stable monogamous relationship and the entry into the non-reproducible stage influence the non-use of condoms and in the increased risk of HIV infection. [19] In other cases, most women under this age feel embarrassed to ask the partner to use condom since this impairs spontaneity and endangers the sexual relationship. [20]

HIV/AIDS mortality in Brazil is still a public health problem that affects heterogeneous segments of the population, particularly young adults and people in poverty situation. Although mortality declined after 1996, particularly among men, it is the fourth leading cause of death in the country. From 1989 to 2005 there were 101 HIV/AIDS deaths in the Northwest region of Paraná. Based on the fact that 43 of these deaths occurred less than one month after the diagnosis and that only eight individuals were able to survive for more than five years with the disease, it is possible to assume that health services face a certain fragility in early diagnosis of HIV virus, as well as in monitoring the health status of the seropositive individual. [14]

The tendency towards epidemic stabilization in the state of Paraná, in the city of Londrina, is similar to that observed in Brazil. Although there was a decrease in the incidence rates in both sexes, this tendency was not statistically significant. Data corroborate the findings of a study conducted in 58 countries, which found a slow spread of the epidemic at its onset, followed by a period of rapid expansion and termination with a plateau. According to the authors, almost all epidemics reached their plateau in the 1990s or early 2000s. Londrina follows the downward tendency of Paraná, which differs from the other southern states presenting increased incidence rates since 2000. Possible

explanations for the epidemic growth in the South are: the increasing prevalence of subtype C HIV virus (this represents 56% of the world infections), the high circulation of people between port and inland regions and the use of injecting drugs. [17]

Individuals aged 50 years old and over are 20% more likely to have late access to reference services of HIV diagnosis than the younger ones. [17] In addition, individuals in more advanced ages tend to not perceive themselves in risky situations. This leads to late diagnosis and decreased survival rates, what eventually increases the chances of infection spread due to lack of necessary precautions to avoid viral transmission. In addition, studies demonstrate differences in the HIV evolution time among the elderly and groups of other ages. While in the general population this period is approximately eight to ten years, in the elderly it is reduced to five years. There is a cultural and behavioral challenge to be understood. Policies working with HIV prevention in parallel in each specific group will be able to more effectively reach them in their specifics. [17,19]

FINAL CONSIDERATIONS

It should be emphasized that the HIV/AIDS epidemiological figure in Brazil is still a problem with few expectations of solution. The city of Paranaguá, located in a port region of Paraná, has the highest HIV/AIDS incidence rate due to the high prevalence of prostitution and drug trafficking, what leads to virus spread. It is also observed that the profile of infected individuals has been changing over the years and the state of Paraná has been following this change, reaching even social groups considered non-vulnerable to the syndrome, such as heterosexuals, monogamous women, the elderly and children.

Therefore, in order to reduce the number of cases and to improve life quality, more effective actions are suggested, such as: frequent surveys on the epidemiological profile of the infected individuals; specification of the health interventions for each population group; encouragement of the infected individuals to adhere to the treatment, consequently reducing viral load and the chances of transmission; ensuring that all people have access to antiretroviral treatment and to improvement in life quality.

The nursing consultation is an important care instrument. Through that, it becomes possible to foster support, reception, interaction, clarification of

doubts and communication with the patient - what configures an educational and opportune moment for the exchange of knowledge and establishment of connection between patient and professional.

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