

Vulnerability factors associated with HIV/AIDS hospitalizations: a case-control study

Fatores de vulnerabilidade associados às internações por HIV/aids: estudo caso controle
Factores de vulnerabilidad asociados a la hospitalización del VIH/SIDA: estudio de control de casos

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ABSTRACT

Objectives: to identify the association between HIV/AIDS hospitalizations and factors that integrate individual, social, and programmatic vulnerabilities. **Methods:** a case-control study conducted in 2014 in a municipality in the state of São Paulo. "Cases" included people living with HIV (PLHIV) hospitalized and "control" those who were outpatients. Interviews were conducted using a tool with sociodemographic variables, clinical characteristics and other vulnerabilities. Data were analyzed by conditional logistic regression. **Results:** fifty-six cases and 112 control participated. Risk factors for HIV hospitalization were: unemployed and retired individuals; homeless people; non-antiretroviral users; individuals who did not regularly attend returns. Access to social workers was a protective factor for hospitalization. **Conclusions:** this research contributed to measure the social, individual and programmatic vulnerabilities that interfere with HIV worsening and, consequently, unfavorable outcome such as hospitalization.

Descriptors: Acquired Immunodeficiency Syndrome; Vulnerable Populations; Hospitalization; Delivery of Health Care; Public Health.

RESUMO

Objetivos: identificar a associação entre as internações por HIV/aids e os fatores que integram as vulnerabilidades individuais, sociais e programáticas. **Métodos:** estudo caso-controlado realizado em 2014 em um município do estado de São Paulo. "Casos" compreenderam pessoas que viviam com HIV (PVHIV) internadas e "controles" aquelas que faziam acompanhamento ambulatorial. Foram realizadas entrevistas utilizando um instrumento com variáveis sociodemográficas, características clínicas e outras vulnerabilidades. Os dados foram analisados por meio de regressão logística condicional. **Resultados:** participaram 56 casos e 112 controles. Constituíram fatores de risco para internação hospitalar por HIV: indivíduos desempregados e aposentados/do lar; pessoas em situação de rua; não usuários de antirretroviral; indivíduos que não compareciam regularmente aos retornos. Acesso à assistente social constituiu-se um fator de proteção para internação. **Conclusões:** esta investigação contribuiu para mensurar as vulnerabilidades sociais, individuais e programáticas que interferem na agudização do HIV e, conseqüentemente, no desfecho desfavorável, como a internação hospitalar.

Descritores: Síndrome de Imunodeficiência Adquirida; Populações Vulneráveis; Hospitalização; Assistência à Saúde; Saúde Pública.

RESUMEN

Objetivos: identificar la asociación entre las hospitalizaciones por VIH/SIDA y los factores que integran las vulnerabilidades individuales, sociales y del programa. **Métodos:** estudio de casos y controles realizado en 2014 en un municipio del estado de São Paulo. Los "casos" incluyeron a personas que viven con VIH (PVVIH) hospitalizadas y "controla" a los pacientes ambulatorios. Las entrevistas se realizaron utilizando un instrumento con variables sociodemográficas, características clínicas y otras vulnerabilidades. Los datos fueron analizados por regresión logística condicional. **Resultados:** participaron 56 casos y 112 controles. Los factores de riesgo de hospitalización por VIH fueron: personas desempleadas y jubiladas; personas sin hogar; usuarios no antirretrovirales; individuos que no asistieron regularmente a las declaraciones. El acceso a los trabajadores sociales fue un factor protector para la hospitalización. **Conclusiones:** esta investigación contribuyó a medir las vulnerabilidades sociales, individuales y programáticas que interfieren con la agudización del VIH y, en consecuencia, el resultado desfavorable, como la hospitalización.

Descriptores: Síndrome de Inmunodeficiencia Adquirida; Poblaciones Vulnerables; Hospitalización; Prestación de Atención de Salud; Salud Pública.

INTRODUCTION

More than 30 years later, there have been numerous advances in health policies that involve HIV/AIDS prevention, diagnosis and treatment⁽¹⁾. Nevertheless, HIV infection remains one of the world's most serious health challenges, as it has undergone an epidemiological transition from acute disease (AIDS) to a chronic condition (individuals infected with the virus). There was an impact on the need for long-term coordinated care in an essentially reactive, fragmented and episodic healthcare system⁽²⁾. Such characteristics often lead to non-retention of the individual to health services, with consequent clinical worsening and need for hospitalization⁽³⁾.

In 2012, there were 35,917 HIV/AIDS hospitalizations in Brazil, with the Southeast region accounting for 42.0% (15,075) of these cases and the state of São Paulo for 25.9% (9,312)⁽⁴⁾. It is worth noting that many of the characteristics presented about HIV/AIDS hospitalizations are addressed in the scientific literature in light of the concept of vulnerability⁽⁵⁾. Therefore, this study follows this line and adopts as a concept of vulnerability the set of individual elements (subjective, biological and behavioral), social (economic and social adversities) and programmatic (prevention, education, control and assistance programs, developed in all levels of health care) that make individuals and groups susceptible to health issues⁽⁶⁾.

In order to know the scientific literature on aspects related to HIV/AIDS hospitalizations, a bibliographic survey was conducted in 2015. There was identification of 26 articles that, in summary, describe the complexity and challenges surrounding the HIV approach, making case management transcend biological and clinical factors, aggregating social, individual, and cultural elements. Such complexity, linked to the chronic character of the infection, is surrounded by structural weaknesses of health services. These services have fragmented care, and a biologicist and physician-centered approach that, in turn, may incur clinical complications and hospitalizations.

Given this, the present study raises the hypothesis that there are individual, social and programmatic risk factors associated with HIV hospitalizations.

OBJECTIVES

To identify the association between HIV/AIDS hospitalizations and factors that integrate individual, social, and programmatic vulnerabilities.

METHODS

Ethical aspects

In compliance with Resolution guidelines of the Brazilian National Health Board (CNS – *Conselho Nacional de Saúde*) 466/12, this study was approved by the Research Ethics Committee of *Universidade de São Paulo's Escola de Enfermagem de Ribeirão Preto*, under protocol 25096113.0.0000.5393.

Design, period and place of study

A case-control epidemiological study guided by the STROBE tool, conducted in 2014 in a municipality in the state of São

Paulo's countryside, which had an estimated population of approximately 650,000 inhabitants in 2015.

Outpatient follow-up of HIV/AIDS cases diagnosed in the city is performed by specialized teams distributed in five Specialized Care Services (SAE – *Serviços de Assistência Especializada*). These services have the backing of a large public hospital to assist in cases requiring hospitalization. This hospital was responsible for 540 HIV/AIDS hospitalizations in 2015 and also performed outpatient follow-up for patients that were hospitalized.

Population or sample; inclusion and exclusion criteria

Individuals with HIV/AIDS hospitalized in 2014 and registered in the hospital's Hospitalization System (SIH – *Sistema de Internação Hospitalar*) were defined as "cases". Individuals with ICD related to HIV/AIDS were included: B20.0 to B24; Z20; Z20.6; Z21; R75. Individuals living with HIV/AIDS (PLHIV/AIDS) in outpatient follow-up in the five municipality SAE, with no hospitalization history in the last 12 months, were defined as "control". The following inclusion criteria were considered: aged 18 years and over, and resident in the municipality of study; and as exclusion: subjects unable to answer the questionnaire. Two control individuals (112) were selected for each case (56), which were matched according to the area of residence of the case and the area covered by the follow-up SAE.

Study protocol

For the study, data were collected from primary and secondary sources. Primary sources consisted of PLHIV/AIDS; Secondary sources were: Hospital Information System accessed at the study hospital; Hospital and SAE Clinical Records; and Electronic Records of the municipal public health network.

The data collection tool was developed based on the Ministry of Health Recommendations for antiretroviral therapy (ART) in HIV-infected adults⁽⁷⁾; in the outpatient follow-up protocol of the patient with HIV/AIDS of the Minas Gerais State Hospital Foundation (*Fundação Hospitalar do Estado de Minas Gerais*)⁽⁸⁾; in the rapid assessment methodology of the organizational characteristics and performance of SUS (*Sistema Único de Saúde* – Brazilian Unified Health System) care services⁽⁹⁾; and the constituent elements of Health Care Networks⁽²⁾. The tool was subjected to content and semantic analysis by subject matter experts. Variables corresponding to individual/social (sociodemographic, behavioral and clinical) and programmatic (case follow-up) vulnerabilities were selected for this study.

In order to ensure comparability of the collected data, the same tool was used to interview cases and control, as well as a single interviewer for both. Importantly, the sensitivity and specificity of the interviews were not tested.

Analysis of results, and statistics

In the data analysis, descriptive techniques and Chi-Square analysis were used, which allowed the identification of the independent variables that were submitted to conditional

logistic regression analysis. For this analysis, the dependent variable was HIV hospitalization presence (yes or no).

To perform the logistic regression analysis, all variables were entered together in the model, except those obtained by secondary sources, since their quality was questioned throughout the analyzes. After insertion of all variables in the model, those with the highest p value were removed individually, one by one and a new adjustment was made with the remaining variables.

From the chosen model, adjusted and unadjusted odds ratios (OR) were established along with the respective Confidence Intervals. The significance level adopted in all analyzes was 5% (alpha = 0.05). The EpiCalc library from program R version 3.0.1 was used.

RESULTS

Regarding the demographic profile of the PL-HIV/AIDS interviewed, the individuals were mostly male (49.4%), aged 40 to 60 years (54.8%), non-white (56.6%) and with presence of any religious belief (71.4%). Regarding social variables, most individuals (73.2%) did not consume alcohol. A significant statistical association was identified between HIV/AIDS hospitalization and the variables education, occupation, drug use, prison history and performance of benefits in exchange for sex. Among the clinical variables, almost half of the individuals had another chronic condition and 86.3% accepted their diagnosis of HIV. Other variables such as regular use of ART, difficulty taking ART, and treatment withdrawal were also statistically significant associated with HIV/AIDS hospitalization (Table 1).

As for programmatic vulnerabilities, "satisfaction with care", "lack of scheduled return appointments", "appointment with infectious physician", "appointment with nursing staff" and

Table 1 - Frequency distribution of sociodemographic and behavioral characteristics (individual/social vulnerabilities) of people living with HIV/AIDS in Ribeirão Preto, São Paulo, Brazil, 2014

Individual/social vulnerabilities		Hospitalized (N=56)		Not hospitalized (N=112)		Total (n=168)		p ^a
		n	%	n	%	n	%	
Sex	Male	29	51.8	54	48.2	83	49.4	0.662
	Female	27	48.2	58	51.8	85	50.6	
Age group	18 – 39 years	21	37.5	28	25.0	49	29.1	0.175
	40 – 60 years	32	57.1	60	53.6	92	54.8	
	> 60 years	3	5.4	24	21.4	27	16.1	
Color/Race	White	22	39.3	51	45.5	73	43.4	0.441
	Non-white	34	60.7	61	54.5	95	56.6	
Schooling	No SCH or incomplete HE	32	57.1	47	41.9	79	47.1	0.044
	Complete ES	11	19.7	17	15.2	28	16.6	
	Complete HS/complete HE	13	23.2	48	42.9	61	36.3	
Occupation	Employed/Self-Employed	17	30.4	61	54.5	78	46.5	0.002
	Unemployed	26	46.4	24	21.4	50	29.7	
	Others (retired/homemaker)	13	23.2	27	24.1	40	23.8	
Religion	Yes	40	71.4	94	83.9	134	79.7	0.573
	No	16	28.6	18	16.1	34	20.3	
Homeless	Yes	15	26.8	1	0.9	16	9.5	0.000
	No	41	73.2	111	99.1	152	90.5	
HIV/AIDS diagnosis acceptance	Yes	46	82.1	99	88.4	145	86.3	0.266
	No	10	17.9	13	11.6	23	13.7	
Alcoholic beverage consumption	Yes	20	35.7	25	22.3	45	26.8	0.064
	No	36	64.3	87	77.7	123	73.2	
Drug use	Yes	13	23.2	10	8.9	23	13.7	0.011
	No	43	76.8	102	91.1	145	86.3	
Prison history	Yes	17	30.3	9	8.1	26	15.5	0.000
	No	39	69.7	103	91.9	142	84.5	
Benefits in exchange for sex	Yes	10	17.8	7	6.2	17	10.1	0.018
	No	46	82.2	105	93.8	151	89.9	
Chronic condition presence	Yes	29	51.8	53	47.3	82	48.8	0.585
	No	27	48.2	59	52.7	86	51.2	
Regular ART	Yes	22	39.3	94	83.9	116	69.1	0.000
	No	34	60.7	18	16.1	52	30.9	
Difficulty to take ART	Yes	33	58.9	19	16.9	52	30.9	0.000
	No	23	41.1	93	83.1	116	69.1	
ART withdrawal	Yes	34	60.7	20	17.8	54	32.8	0.000
	No	22	39.3	92	82.2	114	67.8	

Note: SCH - schooling; ES - elementary school; HS - high school; HE - higher education; ART - antiretroviral therapy aChi-square test (p <0.05).

"care with social worker" presented statistical significance for the Chi-square test (Table 2).

The best model of logistic regression analysis consisted of seven variables. It was found that the unemployed had 3.63 and the retired/homemaker 7.14 times more likely to intern than employed or self-employed. Homeless people were 10.18 times more likely to be interned than those in the opposite situation. Non-ART users were 9.68 more likely than users. Those who were unsatisfactorily attending return visits were 7.62 times more likely to be hospitalized than those who were absent; undergoing care with a social worker was a protective factor for HIV hospitalization (Table 3).

Table 2 - Frequency distribution of health care aspects of people living with HIV/AIDS in Ribeirão Preto, São Paulo, Brazil, 2014

Programmatic vulnerability		Hospitalized (N=56)		Not hospitalized (N=112)		Total (n=168)		p*
		n	%	n	%	n	%	
Satisfaction with outpatient care	Satisfactory	47	83.9	107	95.5	154	91.6	0.010
	Unsatisfactory	9	16.1	5	4.5	14	8.4	
Difficulties in receiving care	Satisfactory	52	92.8	109	97.3	161	95.8	0.172
	Unsatisfactory	4	7.1	3	2.7	7	4.2	
Return appointment attendance	Satisfactory	24	42.8	95	84.8	119	70.8	0.000
	Unsatisfactory	32	57.2	17	15.2	49	29.2	
Appointment with infectious physician	Satisfactory	51	91.1	112	100.0	163	97.1	0.001
	Unsatisfactory	5	8.9	0	0.0	5	2.9	
Appointment with nursing staff	Satisfactory	51	91.1	111	99.1	162	96.4	0.008
	Unsatisfactory	5	8.9	1	0.9	6	3.6	
Social worker support	Yes	15	26.8	62	55.4	77	45.8	0.000
	No	41	73.2	50	44.6	91	54.1	
Appointment with psychologist	Satisfactory	5	8.9	13	11.6	18	10.7	0.596
	Unsatisfactory	51	91.1	99	88.4	150	89.3	
Appointment with nutritionist	Yes	6	10.7	12	10.7	18	10.7	---
	No	50	89.3	100	89.3	150	89.3	
Antiretroviral therapy side effect	Satisfactory	8	14.3	14	12.5	22	13.1	0.746
	Unsatisfactory	48	85.7	98	87.5	146	86.9	
Other health services use	Yes	49	87.5	88	78.6	137	81.5	0.159
	No	7	12.5	24	21.4	31	18.5	
Emergency Care Units use	Yes	47	83.9	83	74.1	130	77.4	0.151
	No	9	16.1	29	25.9	38	22.6	
Basic Health Units use	Yes	18	32.1	38	33.9	56	33.3	0.817
	No	38	67.9	74	66.1	112	66.6	
Health insurance use	Yes	5	9.9	18	16.1	23	13.7	0.204
	No	51	91.1	94	83.9	145	86.3	
Medical appointment payment	Yes	10	17.8	12	10.7	22	13.1	0.195
	No	46	82.2	100	89.3	146	86.9	
Question about living conditions	Yes	26	46.4	63	56.3	89	53.0	0.742
	No	30	53.6	49	43.7	79	47.0	
Question complications	Yes	48	85.7	102	91.1	150	89.3	0.289
	No	8	14.3	10	8.9	18	10.7	
Emergency health services use	Yes	50	89.2	109	97.32	159	94.6	0.113
	No	6	10.7	3	2.68	9	5.36	

Table 3 - Risk factors analysis of people living with HIV/AIDS in Ribeirão Preto, São Paulo, Brazil, 2014

Risk factors		OR	95% CI	Adj. OR	95% CI	p value
Occupation	Employee/Self-Employed	1		1		
	Unemployed	3.93	[1.75–8.83]	3.63	[1.06–12.51]	0.017^a
	Retired/Homemaker	1.76	[0.70–4.46]	7.14	[1.38–36.94]	
Homeless	Yes	30.0	[3.96–227.11]	10.18	[1.06–97.80]	
No	1		1			
Drug use	Yes	3.46	[1.29–9.31]	0.18	[0.02–1.85]	0.127
	No	1		1		
Benefits in exchange for sex	Yes	6.90	[1.45–32.78]	1.13	[0.06–21.23]	0.935
	No	1		1		
Regular ART	Yes	1		1		0.001^a
	No	6.75	[3.09–14.76]	9.68	[2.38–39.40]	
Return appointments attendance	Satisfactory	1		1		0.002^a
	Unsatisfactory	7.25	[3.16–16.65]	7.62	[1.85–31.50]	
Social worker	Yes	1		1		0.020^a
	No	0.27	[0.13–0.59]	0.25	[0.07–0.88]	

Caption: ART - antiretroviral therapy; ^aPresents statistical significance.

DISCUSSION

The findings of the study allow reflections on the complexity that permeates PLHIV/AIDS diagnosis and clinical follow-up in interface with individual and social issues. Among the sociodemographic characteristics, lack of occupation was a risk factor for HIV hospitalization. Being employed or acting as a self-employed person is a protective element against non-hospitalization. Added to this, there is the idea that an income source presence is crucial for maintaining the quality and standard of living⁽¹⁰⁾ in a context of political instability and economic polarization.

Another variable that presented as a significant risk factor for HIV hospitalization was related to people who were homeless. This population is considered as a multifaceted and multidimensional phenomenon, but with some common characteristics, such as precariousness in the socio-family and work dimensions, as well as feelings such as isolation, loneliness, and non-belonging⁽¹¹⁾.

The decision to remain homeless is often influenced by structural and biographical elements. Thus, understanding and even facing this reality implies the recognition of the living conditions of these subjects and the availability of social services in each city⁽¹²⁾.

Considering this requirement, it is important to highlight that the studied municipality has teams to approach the homeless population in specific services such as the Screening and Referral Center for Immigrant/Itinerant and Homeless (*Central de Triagem e Encaminhamento ao Imigrante/Itinerante e Morador de Rua*), and the Specialized Reference Center for the Homeless (*Centro de Referência Especializado para Atendimento à*

População em Situação de Rua). Such services provide assistance to people in situations of vulnerability or social exclusion. They provide temporary reception, opportunities to strengthen the family, personal and social bond, in order to promote their inclusion, autonomy and independence of subjects, through participation in socio-educational activities and operational workshops⁽¹³⁾.

Additionally, the municipality has health care organized in Health Districts, and the STD/AIDS, Viral Hepatitis and Tuberculosis Program has, in some SAE, care with professional social worker and outreach street office. Its main focus is crack users and pregnant women with street syphilis. Given the complexity of care provided to this population, in addition to the availability and provision of health actions and services, it is necessary to commit teams to promote quality work. Thus, there would be a guarantee of intersectoriality and integration between the various social and health care services belonging to the healthcare network⁽¹⁴⁾. It is intended to reduce the existing vulnerabilities in this setting of poverty and social exclusion. Thus, such efforts require a political context aligned with proposals for identifying vulnerable groups and focusing on actions and services, rescuing and valuing proposals for social inclusion and development.

Other characteristics such as drug use, non-use of antiretrovirals (ARVs) regularly were also risk factors for HIV/AIDS hospitalization, corroborating another study about vulnerabilities that directly reflect the health condition of PLHIV/AIDS⁽¹⁵⁾. Regarding drug use and sex in exchange for benefits, it must be considered that other social aspects may have overlapped with these variables as determinants of hospitalizations.

Regarding ARV use, according to the Ministry of Health, it is necessary to ensure at least 80% of the prescribed doses to obtain a satisfactory therapeutic response. Thus, poor adherence is identified as one of the main causes of therapeutic failure and, consequently, disease worsening⁽⁷⁾.

Brazil is among the countries that adopted in 2014 the target 90/90/90 recommended by the United Nations Joint Program on HIV/AIDS (UNAIDS) and the World Health Organization, which has, by 2020, 90% of people diagnosed with HIV. Of this group, 90% undergo ARV treatment; and among these, 90% with undetectable viral load, which indicates the success of the therapeutic method applied⁽¹⁶⁾. In view of this, adherence to ART has been a widely discussed issue in the field of HIV/AIDS care^(7,17). In addition to the continuity and follow-up of appropriate treatment, it is a challenge for Brazil to reach the global goal set by the Ministry of Health⁽¹⁸⁾. From this perspective, it is commonly agreed that drug regime abandonment is one of the major obstacles to health teams in following up on PLHIV/AIDS⁽¹⁹⁾. This challenge can be overcome by ensuring adherence to ART in a context immersed by vulnerabilities of different natures and dimensions, such as individual, social and program vulnerabilities^(7,18,20). This largely depends on the information provided by the health team. Thus, the preparation of professionals and ability to articulate with other services and sectors can maximize adherence to treatment.

Thus, to confront HIV/AIDS, more comprehensive, robust and capable of articulating public actors and sectors of society is needed. Thus, the monitoring of PLHIV/AIDS will be continuous and there will be the establishment of bond with these citizens,

as well as a care plan with emphasis for the integration of the multidisciplinary team. There will also be monitoring of ARV withdrawal at the pharmacy and CD4 + T cell count and viral load⁽²¹⁾.

Furthermore, it was identified between the programmatic vulnerabilities that missing return visits and non-access to social workers were important risk factors for HIV/AIDS hospitalization. This, once again, shows that in care, it is necessary to focus on social and individual issues, in addition to establishing integrated and continuous care⁽²²⁾, within and between health services of the care network.

Care with the social worker was considered a protective factor against HIV non-hospitalization in the entire population. This professional has skills and abilities, with potential for the necessary confrontations in order to recognize and reduce the social vulnerabilities present in the context of PLHIV/AIDS. Moreover, he has the task of speeding up the insertion and integration into the world of work; facilitate access to public transport; predict and promote processes that expedite actions for financial aid; reconcile and integrate SAE activities with other services, NGOs and self-help houses⁽²³⁾.

Social work is understood as a set of actions aimed at the impoverished segments of the population. As with health, the Federal Constitution of 1988 represents a fundamental milestone, as it recognizes social assistance as a public social protection policy, which operates through a single federative system, the Brazilian Unified Social Assistance System (*Sistema Único de Assistência Social*). In this sense, the social policy linked to health and social security policies make up the Brazilian social security system, making possible the social protection, which is the set of social security that a society, in solidarity, guarantees its citizens⁽²⁴⁾.

In HIV prevention and management policies, there have been many advances in the biomedical field. However, it is important to highlight the difficulties of implementing successful actions in practice, if the socio-political context is not considered⁽²⁵⁾. Emphasis should also be placed on the need to work with socially vulnerable groups, today called "key populations", and to identify and adapt actions consistent with each location and context. Declining popular participation and a lack of emphasis on human rights result in poorer public policies, thus reflecting the violation of human rights to PLHIV/AIDS⁽⁶⁾.

The study data point to the challenge of the health system for the establishment of actions that guarantee continuous care and the bond of these individuals with the services, since the lack of outpatient appointments represents a risk factor for hospitalization. Thus, the health system is expected to offer early diagnosis, timely treatment and adequate follow-up of PLHIV. Moreover, considering the different vulnerabilities of PLHIV in this context is to reflect on the need for intersectoral permeability in the establishment of the care plan and actions offered. There is mobilization of social subjects and political resources to include more vulnerable subjects from the focus of actions and services beyond the health context.

Thinking about reducing existing vulnerabilities, both for HIV infection and for those immersed in the life and health context that PLHIV/AIDS are exposed to, presupposes considering each person as a rights holder. Moreover, there is monitoring of the actions of governors in relation to the proposition of projects that

guarantee citizenship strengthening⁽⁶⁾. Given this, considering the existence of factors related to social, individual and programmatic vulnerabilities that directly interfere with HIV hospitalizations, it is clear that the problem transcends the health sector. Articulation with the educational and social assistance sectors is necessary, since PLHIV/AIDS are inserted in a society that must guarantee, at a minimum, citizenship rights. Therefore, the present study points to the urgent need to structure and implement intersectoral public policies to positively impact the management of this chronic condition. Nursing plays a fundamental role and can contribute to reduce unfavorable outcomes, such as hospitalizations due to the disease.

Study limitations

As limitations of this study, it is recognized that, because this is a retrospective analysis, there may be the occurrence of memory bias during interviews with HIV people hospitalized and not hospitalized, in addition to information bias due to secondary sources use, which may contain registry failures.

Contributions to nursing, health or public policy

This study aimed to produce theoretical and operational knowledge by identifying factors associated with HIV/AIDS hospitalizations. This knowledge has the potential to support the direction of public health policies for effective planning and management of local care for PLHIV/AIDS.

CONCLUSIONS

Individual, social and programmatic vulnerabilities such as being unemployed or retired or homemaker, living on the street, using drugs, not using ART on a regular basis, having a history of treatment withdrawal, missing return visits and not being attended by social worker constitute risk factors for HIV/AIDS hospitalization.

Given these findings, it is urgent to consider the several dimensions in tackling the AIDS epidemic. Coping must be based on the constitution of unique therapeutic plans that are consistent with the real needs and demands presented by HIV individuals. There is an urgent need to strengthen specialized HIV/AIDS services, especially regarding the composition of minimum teams. The presence of the social worker stands out, whose look and field of practices/knowledge enhance health care production and management, matching them to the challenges that permeate grievance management as a chronic condition immersed in different social and health contexts.

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