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

ORIGINAL ARTICLE

SOCIOECONOMIC ASPECTS OF FAMILIES WITH CHILDREN BORN EXPOSED TO THE VIRUS HUMAN IMMUNODEFICIENCY

ASPECTOS SOCIOECONÔMICOS DE FAMÍLIAS COM FILHOS NASCIDOS EXPOSTOS AO VÍRUS DA IMUNODEFICIÊNCIA HUMANA

ASPECTOS SOCIO-ECONÓMICOS DE LAS FAMILIAS CON NIÑOS NASCIDOS EXPUESTOS AL VIRUS DE LA INMUNODEFICIENCIA HUMANA

Marli Teresinha Gimeniz Galvão[1], Gilmara Holanda da Cunha[2], Gizelly Castelo Branco Brito[3], Elucir Gir[4]

ABSTRACT

Objective: to identify the socioeconomic aspects of families with children born exposed to human immunodeficiency virus. ***Method***: cross-sectional, descriptive and quantitative study held in Fortaleza/CE/Brazil with 30 adults infected by human immunodeficiency virus/HIV. Data were collected through semi-structured instrument then tabulated, expressed in absolute and relative frequency tables. The research project was approved by the Research Ethics Committee of the hospital where the study was conducted, under protocol number 014/2007 with. ***Results***: Of respondents, 96.6% were female. Of these families, 56.5% had at least two children. The main sources of income were informal employment (36.6%) and government assistance (33.4%), 73.4% were class "D" and "E", and 40% lived on less than minimum wage. Among families, 90.0% used public water supply and garbage was collected. ***Conclusion***: most disadvantaged families is social class, which may contribute negatively in maintaining health. ***Descriptors:*** HIV; Acquired Immunodeficiency Syndrome; Family; Child.

RESUMO

Objetivo: identificar os aspectos socioeconômicos de famílias com filhos nascidos expostos ao vírus da imunodeficiência humana. ***Método:*** estudo transversal, descritivo e quantitativo, realizado em Fortaleza/CE/Brasil com 30 adultos portadores do vírus da imunodeficiência humana/HIV. Os dados foram coletados por meio de instrumento semiestruturado, em seguida tabulados, expressos em frequência absoluta e relativa nas tabelas. O projeto de pesquisa foi aprovado pelo Comitê de Ética em Pesquisa do hospital onde foi realizado o estudo,protocolo de número 014/2007. ***Resultados:*** dos respondentes, 96,6% eram do sexo feminino. Das famílias, 56,5% possuíam no mínimo dois filhos. As principais fontes de renda eram emprego informal (36,6%) e auxílio do governo (33,4%); 73,4% eram de classes “D” e “E”, e 40% conviviam com menos de um salário mínimo. Entre as famílias, 90,0% consumiam água de abastecimento público e o lixo era recolhido. ***Conclusão:*** a maioria das famílias constitui classe social desfavorecida, o que pode contribuir negativamente na manutenção da saúde. ***Descritores:*** HIV; Síndrome de Imunodeficiência Adquirida; Família; Criança.

RESUMEN

Objetivo: identificar los aspectos socioeconómicos de las familias con hijos nacidos expuestos al virus de la inmunodeficiencia humana. ***Método:*** estudio transversal descriptivo y cuantitativo, que tuvo lugar en Fortaleza-CE/Brasil con 30 adultos con el virus de la inmunodeficiencia humana-VIH. Los datos fueron recolectados a través de instrumento semi-estructurado, entonces tabulados, expresados en tablas de frecuencias absolutas y relativas. El proyecto de investigación fue aprobado por el Comité de Ética e Investigación del hospital donde se realizó el estudio, bajo el número de protocolo 014/2007. ***Resultados:*** del total de encuestados, el 96,6% eran mujeres. De estas familias, el 56,5% tenía al menos dos hijos. Las principales fuentes de ingresos son el empleo informal (36,6%) y la ayuda del gobierno (33,4%), el 73,4% eran de clase "D" y "E", y el 40% vive con menos de un salario mínimo. Entre las familias, el 90,0% utiliza abastecimiento público de agua y la basura se recogió. ***Conclusión:*** mayoría de las familias eran de clase social desfavorecida, que pueden contribuir negativamente en el mantenimiento de la salud. ***Descriptores:*** VIH; Síndrome de Inmunodeficiencia Adquirida; Familia; Niño.

[1]Nurse, Doctor Professor of the Department of Nursing and the Post Graduation Program in Nursing of the Center of Health Sciences of the Federal University of Ceará/UFC. Fortaleza (CE), Brazil. E-mail: marligalvao@gmail.com; [2]Nurse, Doctor Professor of the Course of Nursing of the Center of Health Sciences of University of Fortaleza/Unifor and the Faculty of Education and Culture of Ceará/FAECE. Fortaleza (CE), Brazil. E-mail: gilmaraholandaufc@yahoo.com.br; [3]Nurse from the Federal University of Ceará/UFC. Fortaleza (CE), Brazil. E-mail: gizellycastelo@hotmail.com; [4]Nurse, Professor of the School of Nursing at the Ribeirão Preto, University of São Paulo/USP. Ribeirão Preto (SP), Brazil. E-mail: egir@eerp.usp.br

Article compiled from the monograph << Domestic and social aspects of families with children born exposed to human immunodeficiency virus >> presented to the Course of graduation in Nursing, of the Center of Health Sciences, Federal University of Ceará/UFC. Fortaleza (CE), Brazil. 2011

INTRODUCTION

The insertion of the Human Immunodeficiency Virus (HIV) among Brazilian families has increased steadily in recent years. From 1980 until June 2010 were identified a total of 592,914 cases of AIDS. Over the thirty years of the epidemic, HIV infection increased from restricted to males, the rapid spread among females, culminating in the birth of children exposed to HIV and therefore even entire families living with more than one child born exposed to the virus.

In this context, the family nucleon is responsible for the care, protection and care of human beings, especially in the early years of life when it reveals fragile and vulnerable to phenomena taking place in biopsycohistoric spheres. With regard to HIV infection, the family emerges as a unit of care, because the balance can contribute to physical and mental health of its members. Overall, the effects on physical, mental and emotional caused by HIV / AIDS extend to family members and those who are part of their social and affective relationships, because uncertainty about the contagion generates fear, insecurity and emotional imbalance.

For many people, the discovery of HIV seropositivity could mean death and with it the disintegration of many families. In addition, affected individuals are having difficulties to enter the labor market, generally, due to the health condition that prevents them from ensuring the livelihood of their families. Children are forming a growing risk group for HIV infection through vertical transmission of the virus, with sharp increases in the incidence of newborns already infected. It is noteworthy: for being AIDS a chronic, constant questioning are imposed to the family affected by it, requiring decisions about treatment and about the relationships in the social, spiritual and lifestyle.

For the development of quality of the assistance to patients with HIV / AIDS, it is the nurse, like other health professionals not only understand the disease and clinical treatment, also known as the socioeconomic, demographic, epidemiological and familiar setting patient, because this information direct nursing actions, and can promote quality of life for individuals within the resources available. In view of the above, this study aimed to identify socioeconomic families with more than one child born exposed to HIV.

METHOD

Cross-sectional study, descriptive and quantitative, developed at the Hospital São José Infectious Diseases (HSJDI), considered reference service in caring for people with HIV in different stages of infection in the city of Fortaleza, CE. This research is part of a broader research protocol entitled "Physical health, family and community life for children born at risk of vertical transmission of HIV or living with HIV / AIDS in Fortaleza."

Conducted between 2008 and 2009, the study followed sampling criteria for selection of the number of participants. Thus, the sampling universe (n = 285) had 30 adults with HIV / AIDS who reported more than one child born in the presence of HIV infection. Thus, we selected these adults that comprise families living with HIV, the object of study.

As inclusion criteria consisted: patients of both genders aged over 18 years old, confirmed diagnosis of HIV infection, father or mother of a family with more than one child born exposed to the virus and cohabitation. The exclusion criteria, we adopted the presence of mental illness or any condition that would interfere in the answers to the questions prepared by the researcher.

Data collection occurred through a semistructured instrument applied by researcher with ability and previous training. The variables of interest were the adult relationship to the child (parent), gender, age, origin, marital status, number of years of education, occupation and religion, the sons (children): gender, age, serology HIV and health monitoring; family: sources of family income, economic status, information about the individual housing, potable water, source of lighting, sewage, garbage and presence of pets. Data were tabulated and the results expressed in the forms of absolute and relative frequency.

Pursuant to the requirements, the project was submitted to the Ethics Committee in Research of HSJDI, pursuant to Resolution No. 196/96 of the National Health Council on human research and was approved on 18.6.2007 under the Protocol HSJDI ° 014/2007 and registration number 0013.0.042.000-07. All patients had previously signed the Instrument of Consent. Even as required, the research findings were used only for scientific purposes, maintaining the anonymity of participants.

RESULTS

Through interviews with 30 patients with HIV / AIDS information was obtained about their respective families. All individuals interviewed were heterosexual exposure category, married or in a stable, being 96.6% female. The age group with the highest prevalence among men and women was 21 to 30 years old (60.0%). Most were from the city of Fortaleza (63.4%) had between 8 and 11 years of education(46.6%) and was unemployed at the time of the research (60.0%). The Catholic Religion was the most prominent (63.4%) (Table 1).

Table 1. Characterization of adults with the HIV vírus, who had children born exposed to HIV. Fortaleza-CE, 2008-2009.

Characteristics	n	%
Gender		
Male	01	3,4
Female	29	96,6
Age*		
< 20	01	3,4
21 – 30	18	60,0
≥ 31	11	36,6
Proceedings		
Fortaleza	19	63,4
Metropolitan Region†	05	16,6
Countryside of Ceará	06	20,0
Years of study		
None	03	10,0
1 – 3	03	10,0
4 – 7	09	30,0
8 – 11	14	46,6
Whithout answer	01	3,4
Occupation		
Employed	04	13,4
Unemployed	18	60,0
Housewives	08	26,6
Religion		
Catholic	19	63,4
Protestants	10	33,2
None religion	01	3,4

*Average age: males: 29,2 years old and females: 28,3 years old. †Metropolitan Region of Fortaleza: formed of 15 cities, as Caucaia, Eusébio and Maracanaú, place of residence of these patients.

Among the families studied, 82 children were identified, of which 50 were female (61.0%). The predominant age group was of 1-3 years old (40.2%). More than half of the children were seronegative for HIV (53.6%), whereas mothers were treated for prevention of vertical transmission. Regarding access to health services for monitoring, only 35.4% of children were being regularly monitored at the time of the study (Table 2).

Table 2. Characteristics of children of the Familiar Nucleous. Fortaleza-CE, 2008-2009.

Characteristics	Male		Female		Total	
	n	%	n		n	%
Gender	32	39,0	50	Gender	32	39,0
Average age (years old)*				Average age (years old)*		
< 1	03	9,4	08	< 1	03	9,4
1 - 3	14	43,7	19	1 - 3	14	43,7
4 - 7	09	28,2	13	4 - 7	09	28,2
≥ 8	06	18,7	10	≥ 8	06	18,7
Serology against-HIV				Serology against-HIV		
Negative	14	43,8	30	Negative	14	43,8
Positive	03	9,4	07	Positive	03	9,4
Inconclusive†	07	21,8	07	Inconclusive†	07	21,8
Not realized	08	25,0	06	Not realized	08	25,0
Health assistance‡				Health assistance‡		
Yes	09	28,1	20	Yes	09	28,1
Not	10	31,2	15	Not	10	31,2
High	12	37,7	15	High	12	37,7
Desistance	01	3,0	0	Desistance	01	3,0

* Average age: males: 6.2 years old and females: 4.1 years old. † Anti-HIV serology inconclusive: Before the age of two the child may present with the virus and then seroconvert. ‡ Monitoring health: outpatient treatment for individuals exposed to HIV.

Regarding income sources, most individuals had informal employment (36.6%) or had government assistance through funds called "school allowance" or "family allowance" (33.4%). However, 12 patients (40.0%) reported a family income less than minimum wage (Table 3).

For the socioeconomic classification we used the Brazil Economic Classification Criterion (CCEB). In the study, 73.4% of the families were in two classes ("D" and "E"), indicative of poverty or low condition life (Table 3).

According to the data, the families were composed principally of four to six individuals (50.0%). The number of children per household ranged mainly from two to three, and 56.6% of families had at least two of them born in the known duration of HIV (Table 3).

Table 3. Characterization of families which live with two or more children born exposed to HIV. Fortaleza-CE, 2008-2009.

Characteristics	Total	
Family income origin	n	%
Personal employment (formal)	03	10,0
Personal employment (informal)	11	36,6
Help from other relatives	02	6,6
Pension of a relative one	04	13,4
Government help	10	33,4
Family income (minimal salary)*		
< 1	12	40,0
1 - 2	14	46,6
≥ 3	04	13,4
Economic classification†		
C	08	26,6
D	15	50,0
E	07	23,4
Number of individuals per house		
3	05	16,7
4-6	15	50,0
≥7	10	33,3
Number of children per family		
2	17	56,6
3	07	23,4
4	03	10,0
5	03	10,0

*Minimum wage at the time: R$ 415.00 (four hundred and fifteen Reals). † According to the Economic Brazilian Classification Criterion (CCEB).

When analyzing the houses, 24 (80.0%) families had housing. Of these, 96.6% were apartments or houses, built of bricks (76.7%) or clay (6.6%), containing between one and two rooms (40.0%). As for potable water resources, most families (90.0%) drank water that comes from the public supply, while three families were using water from deep wells or untreated control. Furthermore, only one family did not have electricity in their homes, making use of lamp and lantern. Regarding sanitation, 18 (60.0%) households had septic tank for disposal of wastes consisting of units of primary treatment of domestic sewage. Most often, the garbage from every household was subjected to public collection network (90.0%). As for animals, nine families (30.0%) had domestic animals (Table 4).

Table 4. Characterization of housing of the families which live with HIV/AIDS. Fortaleza-CE, 2008-2009.

Characteristics	Total	
	n	%
Housing		
Own	24	80,0
Rented	02	6,6
Given/Borrowed	04	13,4
Type of housing		
House/flat	29	96,6
Rooms	01	3,4
Material of constitution		
Bricks	23	76,7
Loam	02	6,6
Mixed (bricks and loam predominate)	05	16,7
Number of rooms		
1-2	12	40,0
3-4	10	33,4
≥ 5	08	26,6
Sanitary system		
Public collector	08	26,7
Septic fossa	18	60,0
None	04	13,3
Trash destiny		
Public collection	27	90,0
Burned, buried	02	6,6
Thrown	01	3,4
Animals		
Yes	09	30,0
Not	21	70,0

DISCUSSION

This study enabled the identification of domestic and social aspects of families with children born exposed to HIV, regardless of the stage of infection. All respondents were married or living in a stable, majority being female, which probably was influenced by one of the inclusion criteria of the study, namely: being part of a family with more than one child born exposed to HIV.

Therefore, in the third decade of the epidemic, we notice the change in your profile, because HIV infection has not confined to sexual identity, but the behaviors adopted. Initiated among gay men, the epidemic moved by blood transfusion, injecting drug users and, in recent years, there was an increase in cases of heterosexual exposure category. According to research, the males are still more affected; however, the number of cases among women denotes remarkable growth, especially among those with fixed partners. In this context, the myth of a stable relationship, marital and security condom use are issues to discuss.

The age of the respondents showed that AIDS affects especially the people in the most productive period of life, whether in relation to reproduction, to work and to start a family, as noted in other studies. Another feature observed concerns the internalization of the epidemic, which was evidenced by the number of people living in metropolitan cities and in the interior of Ceará. These individuals were referred from their municipalities to the city of Fortaleza, where there are referral services specialize in HIV / AIDS. To do so, it contributes to the existence of a network of basic services and institutions structured by the Unified Health System (SUS), which offers health actions for free, universal, decentralized and comprehensive system via reference and counter. This characteristic has also been observed in other studies. In contrast, these health centers of reference are, for the most part, in the capitals or metropolitan areas, which can hinder patients' access to health services.

Due to occupation, the majority of participants were unemployed at the time of the study to corroborate research indicating that people with HIV / AIDS have serious

difficulties to find and keep a steady job, opting for informal employment. Only one person mentioned having no religion, while the others were adept in any religious practice. About this issue, articles reveal that after HIV infection, religiosity is inserted into daily living as a way to cope with the difficulties arising from virus infection. The spiritual welfare assists in maintaining health and reduces aggravation of the health / disease process, strengthening people living with HIV / AIDS and contributing positively to the increase in quality of life.

According to the recommendations of the National STD / AIDS, children born exposed to HIV should be treated in specialized units, at least until the definition of the diagnosis. Specifically, the non-infected children must be accompanied periodically until the late teens because they have been exposed not only HIV, but also during the intrauterine period, antiretroviral drugs, in the face of ignorance of the effects of exposure to such drugs the medium and long term.

In this research, many of the children born exposed to HIV had no regular health monitoring, which is a negative aspect, because these children require continuous monitoring and often long and intensive treatments. While Brazil has one of the more structured programs on fighting AIDS, and the feminization of HIV transmission still pose a big challenge. As studies show, children are part of a growing risk group for HIV infection, with clear increased incidences of neonates exposed to the virus or already infected, moreover, can be framed in so-called panels, due to the unique needs of care.

Regarding sources of family income, most individuals had informal employment or government assistance, reinforcing findings from other surveys with HIV / AIDS. It is claimed that the level of education is directly linked to employment and monthly income. This fact may limit the purchasing power of households. It was also found low levels of income, sometimes less than minimum wage for the support of the whole family, with income per capita laughable, considering the number of components. Already CCEB it is an instrument which uses economical segmentation lifting household characteristics to differentiate population. It is presented by class, called "A" to "E", which correspond respectively to scores achieved. The class "A" is the one which holds better and "E" has negligible conditions for survival.

Therefore, the economic and political aspects are of fundamental significance for each population in which HIV has spread. It is also noteworthy: the risky behavior is experienced by people in developed and underdeveloped countries. However, the majority of AIDS cases in the world are in poor countries, suggesting a strong relationship between low socioeconomic status and misinformation. It must be noted that the Northeast, specifically the state of Ceará, has climatic adversities and socioeconomic problems that induce population contingents to lodge in the suburbs, constituting areas of extreme poverty. Due to the unfavorable conditions they are exposed, people living in these areas have increased vulnerability to HIV and other sexually transmitted diseases. Moreover, the social precariousness, low income, the number of people living in dwellings with limited space, contributes to the risk of delay in growth and development of children, and increased vulnerability to illnesses.

According turned out, the housing of most families had fewer rooms, some were made of clay and had no electricity. Stands, thus, the existence of people living in limited space with a loss of privacy and increased likelihood of catching diseases. On the issue of water, some families were using water from deep wells or untreated control. Similar data were found in a previous study conducted in cities in the Brazilian Northeast. Available statistics have shown the existence of a relationship between poverty and lack of access to clean water. Given the precarious conditions of these families, it becomes almost impossible to finance a bond networks of water supply. Furthermore, factors such as place of residence, ethnicity and education levels, undertake this acquisition. Undeniably, the percentage of people with access to drinking water in Brazil has increased, but at a pace insufficient to reduce by half the proportion of people without access to safe drinking water by 2015.

As shown, 22 families did not have adequate sanitation, with no sewer system to the public network, a feature also identified in another study conducted in the city of Fortaleza. The lack of sanitation and the type of destination of the garbage can influence negatively on quality of life. Given the peculiarity of those infected with HIV, this episode makes contact with pathogenic microorganisms, which represent sources of opportunistic infections for those whose immune system is already weakened.

Regarding the presence of pets in the household, the relationship between

opportunistic diseases and pets is very narrow, as they may be vectors of various infections and complications in patients with compromised immunity. Among the opportunistic diseases transmitted by animals to people with HIV / AIDS in Brazil prevails toxoplasmosis, considered a zoonosis caused by the protozoan *Toxoplasma gondii*. Transmission occurs primarily by ingestion of oocysts in the environment through the final hosts, cats, or intermediaries, man, other mammals-not cats and birds.

CONCLUSION

Often, the existence of a family member with disease processes requires the reorganization of family dynamics, interpersonal relationships interfering in routine and emotional aspects involved in the situation. Through this study were identified domestic and social aspects of families with children born exposed to HIV / AIDS, noting the proportions and impact of the epidemy.

Although AIDS is now considered a chronic disease thanks to the advent of antiretroviral drugs, which showed unquestionable improvement in the quality of life of people living with HIV / AIDS, the fact still no cure, triggers a problem that requires attention from the scientific community and public policy. As mentioned, the majority of individuals lacked work and financial instability. Therefore, although the follow-up visits in health and antiretrovirals are free, deprivation influences the financial health because it does not feed properly and live in an environment with poor infrastructure interfere with response to therapy.

The sample consisted of only 30 families, due to one of the inclusion criteria of the study, which was composed by families over a child born exposed to HIV. A limitation of this study was the inability to commute to the homes of families, in order to verify in situ living conditions. We highlight the importance of further research on this issue, especially because the family is the primary unit of care of individuals, and may contribute significantly to their welfare.

Finally, it is considered that this study provides subsidies for the identification of common aspects of the reality of HIV / AIDS, which is essential for the planning of nursing interventions and health education according to the resources available for living.

REFERENCES

1. Brasil. Ministério da Saúde. Boletim Epidemiológico AIDS-DST. Brasília; 2011.

2. Schaurich D, Freitas HMB. O referencial de vulnerabilidade ao HIV/aids aplicado às famílias: um exercício reflexivo. Rev Esc Enferm USP [Internet]. 2011 Aug [cited 2012 May 14];45(4):989-95. Available from: http://www.scielo.br/pdf/reeusp/v45n4/v45n4a28.pdf

3. Cardoso AL, Marcon SS, Waidmani MAP. O impacto da descoberta da sorologia positiva do portador de HIV/aids e sua família. Rev Enferm UERJ [Internet]. 2008 July/Sept [cited 2012 Jan 22];16(3):326-32. Available from: http://www.facenf.uerj.br/v16n3/v16n3a05.pdf

4. Machado MMT, Galvão MTG, Lindsay AC, Cunha AJLA, Leite AJM, Leite RD, et al. Condições sociodemográficas de crianças de zero a dois anos filhas de mães com HIV/aids, Fortaleza, CE, Brasil. Rev Bras Saúde Matern Infant [Internet]. 2010 July/Sept [cited 2011 Dec 15];10(3):377-82. Available from: http://www.scielo.br/pdf/rbsmi/v10n3/v10n3a11.pdf

5. Padoin SMM, Souza IEO, Paula CC. Cotidianidade da mulher que tem HIV/aids: modo de ser diante da (im)possibilidade de amamentar. Rev Gaúcha Enferm [Internet]. 2010 Mar [cited 2011 Nov 28];31(1):77-83. Available from: http://www.scielo.br/pdf/rgenf/v31n1/a11v31n1.pdf

6. Cunha GH, Galvão MTG. Sociodemographic context of patients with HIV/aids attended in nursing consultation. J Nurs UFPE on line [Internet]. 2011 May [cited 2011 Nov 11];5(3):713-21. Available from: http://www.ufpe.br/revistaenfermagem/index.php/revista/article/view/1615/pdf_483

7. Associação Brasileira de Empresas de Pesquisas. Critério de classificação econômica Brasil on line [Internet]. 2008 [cited 2011 Nov 02]. Available from: http://www.abep.org/novo/Content.aspx?ContentID=139

8. Pereira JA, Marques RH, Fonseca LVL, Eleutério AM, MLC Bonfim, Dias OV. Infecção pelo HIV e aids em município do norte de Minas Gerais. Rev APS [Internet]. 2011 Jan/Mar [cited 2011 Feb 10];14(1):39-49. Available from: http://www.aps.ufjf.br/index.php/aps/article/view/808/444

9. Cunha GH, Galvão MTG. Nursing diagnoses in patients with human immunodeficiency vírus/ acquired immunodeficiency syndrome in outpatient care. Acta Paul Enferm

[Internet]. 2010 July/Ago [cited 2012 Jan 15];23(4):526-32. Available from: http://www.scielo.br/pdf/ape/v23n4/en_13.pdf

10. Silva J, Saldanha AAW, Azevedo RLW. Variáveis de impacto na qualidade de vida de pessoas acima de 50 anos HIV+. Psicol Reflex Crit [Internet]. 2010 Jan/Apr [cited 2011 Dec 08];23(1):56-63. Available from: http://www.scielo.br/pdf/prc/v23n1/a08v23n1.pdf

11. Silva MJM, Mendes WS, Gama MEA, Chein MBC, Veras DS. Perfil clínico-laboratorial de crianças vivendo com HIV/aids por transmissão vertical em uma cidade do Nordeste brasileiro. Rev Soc Bras Med Trop [Internet]. 2010 Jan/Feb [cited 2012 Mar 19];43(1):32-5. Available from: http://www.scielo.br/pdf/rsbmt/v43n1/a08v43n1.pdf

12. Rodrigues Neto JF, Lima LS, Rocha LF, Lima JS, Santana KB, Silveira MG. Perfil de adultos infectados pelo vírus da imunodeficiência humana (HIV) em ambulatório de referência em doenças sexualmente transmissíveis no norte de Minas Gerais. Rev Med Minas Gerais [Internet]. 2010 Jan/Mar [cited 2012 Mar 22];20(1):22-9. Available from: http://rmmg.medicina.ufmg.br/index.php/rmmg/article/viewDownloadInterstitial/204/189

13. Costa DAM, Zago MMF, Medeiros M. HIV/aids treatment regimens adherence in women. Acta Paul Enferm [Internet]. 2009 Sept/Oct [cited 2012 Mar 22];22(5):631-7. Available from: http://www.scielo.br/pdf/ape/v22n5/en_06.pdf

14. Calvetti PU, Muller MC, Nunes MLT.¶ Qualidade de vida e bem-estar espiritual em pessoas vivendo com HIV/aids. Psicol estud [Internet]. 2008 Sep [cited 2012 Feb 05];13(3):523-30. Available from: http://www.scielo.br/pdf/pe/v13n3/v13n3a13.pdf

15. Brasil. Ministério da Saúde. Programa Nacional de DST e aids. Recomendações para terapia antirretroviral em crianças e adolescentes infectados pelo HIV. Brasília; 2009.

16. Galvão MTG, Cunha G H, Machado MMT. Dilemas e conflitos de ser mãe na vigência do HIV/aids. Rev Bras Enferm [Internet]. 2010 May/June [cited 2012 Mar 30];63(3):371-6. Available from: http://www.scielo.br/pdf/reben/v63n3/a04v63n3.pdf

17. Gaspar J, Reis RK, Pereira FMV, Neves LAS, Castrighini CC, Gir E. Qualidade de vida de mulheres vivendo com o HIV/aids de um município do interior paulista. Rev Esc Enferm USP [Internet]. 2011 Mar [cited 2012 Jan 29];45(1):230-6. Available from: http://www.scielo.br/pdf/reeusp/v45n1/32.pdf

18. Chrestani MA, Santos IS, Cesar JA, Winckler LS, Gonçalves TS, Neumann NA. Assistência à gestação e ao parto: resultados de dois estudos transversais em áreas pobres das regiões Norte e Nordeste do Brasil. Cad Saúde Pública [Internet]. 2008 July [cited 2012 May 20];24(7):1609-18. Available from: http://www.scielosp.org/pdf/csp/v24n7/16.pdf

19. Reymão ER, Saber BA. Acesso à água tratada e insuficiência de renda - duas dimensões do problema da pobreza no Nordeste brasileiro sob a óptica dos objetivos de desenvolvimento do milênio. Revista Iberoamericana de Economia Ecológica [Internet]. 2009 [cited 2011 Dec 02];12:1-15. Available from: http://ddd.uab.cat/pub/revibec/13902776v12p1.pdf

20. Rodrigues-Junior AL, Castilho EA. Aids e doenças oportunistas transmissíveis na faixa de fronteira brasileira. Rev Soc Bras Med Trop [Internet]. 2010 Set/Oct [cited 2011 Dec 24];43(5):542-7. Available from: http://www.scielo.br/pdf/rsbmt/v43n5/v43n5a14.pdf

21. Nissapatorn V, Sawangjaroen N. Parasitic infections in HIV infected individuals: diagnostic & therapeutic challenges. Indian J Med Res [Internet]. 2011 Dec [cited 2012 Jan 05];134:878-97. Available from: http://www.ijmr.org.in/temp/IndianJMedRes1346878-5512972_151849.pdf

Sources of funding: No
Conflict of interest: No
Date of first submission: 2012/06/14
Last received: 2012/10/01
Accepted: 2012/10/02
Publishing: 2012/11/01

Corresponding Address

Marli Teresinha Gimeniz Galvão
Universidade Federal do Ceará
Departamento de Enfermagem
Rua Rodolfo Teófilo, 1115
Bairro Rodolfo Teófilo
CEP: 60430-160 — Fortaleza (CE), Brazil