Epidemiological profile of women with HPV treated in a basic health unit

Melo, Túlio Felipe Vieira de; Bezerra, Héllyda de Souza; Silva, Dany Geraldo Kramer Cavalcanti e; Silva, Richardson Augusto Rosendo da

Veröffentlichungsversion / Published Version
Zeitschriftenartikel / journal article

Empfohlene Zitierung / Suggested Citation:
Melo, T. F. V. d., Bezerra, H. d. S., Silva, D. G. K. C. e., & Silva, R. A. R. d. (2016). Epidemiological profile of women with HPV treated in a basic health unit. *Revista de Pesquisa: Cuidado é Fundamental Online*, *8*(4), 5177-5183. https://doi.org/10.9789/2175-5361.2016.v8i4.5177-5183

REVISTA ONLINE DE PESQUISA

CUIDADO É FUNDAMENTAL

Universidade Federal do Estado do Rio de Janeiro • Escola de Enfermagem Alfredo Pinto

RESEARCH

DOI: 10.9789/2175-5361.2016.v8i4.5177-5183

Perfil epidemiológico de mulheres com HPV atendidas em uma unidade básica de saúde

Epidemiological profile of women with HPV treated in a basic health unit

Perfil epidemiológico de las mujeres con VPH assistido en una unidad básica de salud

Túlio Felipe Vieira de Melo[1], Héllyda de Souza Bezerra[2], Dany Geraldo Kramer Cavalcanti e Silva[3], Richardson Augusto Rosendo da Silva[4]

Como citar este artigo:
Melo TFV; Bezerra HS; Silva DGKC, et al. Epidemiological profile of women with HPV treated in a basic health unit. Rev Fund Care Online. 2016 out/dez; 8(4):5177-5183. DOI: http://dx.doi.org/10.9789/2175-5361.2016.v8i4.5177-5183

ABSTRACT

Objective: To describe the epidemiological profile of women with HPV who treated in a Basic Health Unit. **Method**: A survey of quantitative trait was performed in a district in the municipality of Santa Cruz/RN through the individual records of 205 users of the Unit. **Results**: The epidemiological profile was characterized by women with age between 19-30 years; married; white; schooling until the incomplete high school; income up to a wage minimum; first intercourse among 15-17 years; with a partner. **Conclusion:** The same are in the risk group for the involvement of HPV because they present themselves as young, married, low education and income, and sexual initiation before age 18 years.

Descriptors: Neoplasms of the cervix; Primary prevention; Vaginal smear socioeconomic factors.

[1] Nurse of the Family Health Strategy of Currais Novos/RN, Brazil. Master in Structural and Functional Biology. E-mail: tuliomelo11@hotmail.com

[2] Nurse. Master Student from Program Graduate in Public Health of the Federal University of Rio Grande do Norte/UFRN. Substitute Professor of the Undergraduate Program in Nursing at the Faculty of Health Sciences Trairi/FACISA. Santa Cruz/RN, Brasil. E-mail: hellydasbezerra@hotmail.com

[3] Pharmaceutical. PhD in Mechanical Engineering. Adjunct Professor of the Undergraduate Program in Nursing at the Faculty of Health Sciences Trairi/FACISA. Santa Cruz/RN, Brasil. E-mail: dgkcs@yahoo.com.br

[4] Nurse. PhD in Health Sciences. Adjunct Professor of the Undergraduate Program and the Graduate Program (Academic Masters and PhD) in Nursing at the Federal University of Rio Grande do Norte/UFRN. Natal-RN, Brazil. Member of the Research Group Relief and Epidemiologic Practicea in Health and Nursing/PAESE/UFRN. E-mail: rirosendo@yahoo.com.br

RESUMO

Objetivo: Descrever o perfil epidemiológico de mulheres com HPV atendidas em uma Unidade Básica de Saúde. **Método**: A pesquisa de caráter quantitativo foi realizada em um bairro no município de Santa Cruz/RN, por meio das fichas individuais de 205 usuárias da Unidade. **Resultados:** O perfil epidemiológico foi caracterizado por mulheres com idade entre 19-30 anos, casadas, brancas, com ensino médio incompleto, renda de até um salário mínimo, primeira relação sexual entre 15-17 anos e um parceiro. **Conclusão**: As mulheres se encontram no grupo de risco para o acometimento do HPV, pois se apresentam como jovens, casadas, de baixa escolaridade e renda familiar e iniciaram a vida sexual antes dos 18 anos.

Descritores: Neoplasias do colo do útero; Prevenção primária; Esfregaço vaginal; Fatores socioeconômicos.

RESUMEN

Objetivo: Describir el perfil epidemiológico de las mujeres con el VPH que asistió a un método básico de salud. **Método**: Un estudio de carácter cuantitativo se llevó a cabo en un distrito en el municipio de Santa Cruz/RN a través de los registros individuales de 205 usuarios de la Unidad. **Resultados**: El perfil epidemiológico se caracterizó por las mujeres con edad entre 19 a 30 años; casadas; blancas; escolarización hasta la escuela secundaria incompleta; los ingresos de hasta un salario mínimo; la primera relación sexual entre los 15 a 17 años; con una pareja. **Conclusión**: La misma se encuentran en el grupo de riesgo para la participación de VPH, ya que se presentan como joven, casado, el bajo nivel educativo y de ingresos, y la iniciación sexual antes de los 18 años.

Descriptores: Neoplasias del cuello uterino; Prevención primaria; frotis vaginal factores socioeconómicos.

INTRODUCTION

Sexually Transmitted Diseases (STDs) characterized as caused by fungal infections, viruses, bacteria and protozoa that are transmitted mainly through sexual contact, but also involves oral contact with the genitals and the contact of fetal blood from the infected mother in childbirth and lactação.[1] These infections represent a serious public health problem, where the appearance of new cases could reach 333 million people every year.[2] usually these diseases are difficult to detect because they do not generate symptoms in most infected individuals. It is estimated that one out of five people seeking health service is there because of an STD, and found a high rate of these pathologies. If not diagnosed and treated early, these diseases can bring aggravating, such as birth defects, miscarriages, infertility and even increase the chances of infection by the HIV virus in up to ten times.[3]

Infection with human papillomavirus (HPV) is one of the most prevalent in the world, being more frequent in areas where access to health and education is more precarious. These are a group of viruses that includes more than 100 subtypes, that have been identified and classified according to the polynucleotide sequence homologs of their DNA and, depending on subtype, may lead from the onset of genital lesions known as "rooster combs", both to the man and the woman, to more serious problems such as genital cancer.[4-5] Genital injuries are caused in 90% of cases by low-risk subtypes of cancer, that are the HPV-6 and HPV-11. Some types can lead to the emergence of cancers, such as cervical, which is caused by subtypes that are considered high risk for cancer, like the HPV-16, HPV-18, HPV-31 and HPV-45 and HPV subtypes-16 and HPV-18 account for 70% of the cases.[5-6]

In Brazil, there is an incidence of 137 thousand cases of HPV each year and a prevalence of 44.7%, being more common in women between 15 and 25 socio-economically unfavorable. The virus is transmitted through sexual intercourse with an infected individual, the transmission occurring even if the infected person is asymptomatic, but the chances are greater when there is the presence of warts, which are characteristic of the disease. It is estimated that out of five women, one is a carrier of HPV and can transmit the virus to her partner and her son at the parturition.[4,7,8]

The cervical cancer of the uterus is the main clinical consequences of the HPV and has an incidence, for the year 2012, of approximately 17,540 new cases, representing a rate of 17.49 cases per 100,000 women. In the Northeast region, cervical cancer ranks second with 5,050 new cases a 17.96 rate per 100,000 women, a rate higher than the national. For the state of Rio Grande do Norte, cervical cancer is presented with an incidence of 230 cases for the year 2012 and the Natal capital of 80, representing a rate, respectively, 13.98 and 17.98 for each 100,000 women.[9]

Even presenting very prevalent and incident cervical cancer, HPV and other STDs can be detected by cytological examination, primary screening strategy recommended by the Ministry of Health.[10] The Pap smear is used for cancer detection cervical, infections, cervical and vaginal lesions. It is performed grated cervical vaginal and the diagnosis is confirmed by histopathological examination, which is made a biopsy of the injured tissue. Cellular changes can be confirmed by both cytology and by histopathology, both can also detect atypical cells that are caused by HPV of high risk.[11]

HPV is shown most prevalent in poor regions, marginalized and without adequate health care. According to the literature, the main targets for virus infection are young women from poor education and low socioeconomic status, with lack of maturity and guidance about sexual health.

In a study conducted in Rio Grande/RS found and the low age among women affected by HPV, other factors related to virus infection. In this case HPV was more prevalent in women who had low socioeconomic status, multiple sexual partners, poor sexual hygiene, abortions (mainly induced), alcoholism, smoking and use of oral contraceptives. Another relevant finding of the study was the fact that women who were in this group, were the same that had more rejection of not performing the cytological examination.[12-13]

Given the presented problem, the present study aimed to describe the epidemiological profile of women with HPV treated at a Basic Health Unit.

METHOD

This was a descriptive and documental exploratory research with a quantitative approach, which included relevant information on the variables related to HPV infection in women attending the Basic Health Unit (BHU) of increased demand, located in a suburb of neighborhood of the city of Santa Cruz, located in the state of Rio Grande do Norte. UBS serves, among other programs of the Ministry of Health, women to collect the Pap smear, and this procedure performed by the nurse of the service.

They were considered as study objects the information contained in the individual files contained in the family records of service users such as age, color, monthly income, education, age of first sex, marital status, use of contraceptives and the occurrence of HPV. This information was for the years 2008 to 2010. We analyzed the records of adult women as the occurrence of HPV.

The theoretical sample was calculated and adopted the confidence level of 5% and the degree of precision of 95% for estimation and/or generalizations. Taking as a basis the number of 728 records of said UBS was calculated the size of the theoretical sample of 259 records. For this was taken as reference estimates of Israel and Barbetta, as representations of calculations ahead.[14-15]

$$n_0 = \frac{1}{E_0^2}$$

Where:
n_0 is the first approximation of the sample size;
E_0 is the tolerable sampling error (5% = 0.05).

$$n = \frac{N.n_0}{N + n_0}$$

Where:
N is the number of elements of the population;
n it is not the size of the sample.

Font: Barbetta, 2002.

As inclusion criteria were used: female users, aged above 18 years, seen at UBS for the Pap smear testing of the cervix. The study excluded women under 18 who were not parts of the enrolled area; those that did not sign the consent form and never underwent the screening. The research was conducted between April and June 2011.

As a tool for data collection used a structured report to be completed by documentary analysis of records following the criteria of inclusion and exclusion already mentioned above. The script variables were based on Novais and Teresa about the socioeconomic characteristics of the UBS users and the presence or absence of HPV infection such as: age; color; marital status; education; monthly income; age at first intercourse; number of partners; use of hormonal contraceptives; and diagnostic of HPV.[16]

The study database was built using Microsoft Excel 2010, with subsequent typing consistency check. After structuring of the database was initially performed a descriptive analysis of all data on socioeconomic variables of the presence of HPV infection or not.

The study was appreciated by the Research Ethics Committee (CEP) of the Federal University of Rio Grande do Norte (UFRN), under the Approval Protocol Nº 188/10 by number of CAAE 0205.0.051.000-10, receiving assent to its implementation under the Protocol presenting according to the resolution 466/2012 of the National Health Council. In this study, there was the use of Consent free and Clear (IC) that was delivered to users for signing and realization of the desire to participate in the study by the participants. All subjects were fully informed about the nature, risks and the associated research objectives. The privacy and confidentiality of information collected was strictly adhered to, the data being used only for purposes of this study and the names of them were replaced by numbers, preserving its ethical aspects.

After the approval of the CEP/UFRN was conducted a pilot study with a sample group aiming adjustments in the search tool. These records were excluded from the study and the completion of the test there was no need to change the search script.

RESULTS

Of all the 259 IC delivered to users, only 205 have been properly signed and collected, which is the number of effective analyzed medical records, lower than the calculated sample. This is because some users have refused to participate. Observing then a percentage of 80% acceptances by the users. One point that hindered the study was the lack of registration of certain information in certain records, being used in this study the term Unregistered (NR) for identification purposes. Table 1 refers to the distribution of women who composed the study, depending on the age, marital status, income, color and schooling.

Table 1 – Socio-economic characteristics of the sample. Santa Cruz, RN, Brazil, 2011

Variable	Category	N	%
Age (years)	18 - 25	40	19,5
	26-32	45	21,9
	33-39	33	16,2
	40-46	31	15,1
	> 46	56	27,3
Marital status	Married	147	71,7
	Not married	50	24,4
	Widow	8	3,9
Race/color	White	88	43
	Black	55	26,8
	Brown	62	30,2
Education	Complete Higher Education	1	0,5
	Higher Education Incomplete	1	0,5
	Complete High School	25	12,2
	Incomplete High School	35	17
	Complete Primary Education	25	12,2
	Elementary School Incomplete	43	21
	Illiterate	12	5,9
	Not Registered	63	30,7
Monthly Income	A Minimum Wage	58	28,3
	> 01 Minimum Wage	15	7,3
	Not Registered	132	64,4
Total	**18 - 25**	**205**	**100**

In general there was a predominance of young women 18-39 years (57.6%), married (71.7%), white (43%), who studied up to incomplete secondary education (56.1%) and earning up to minimum wage (28.3%). In this table, the education and monthly income variables have high percentages with data not registered (NR), respectively 30.7% and 64.4%.

The Table 2 shows the main economic variables of the entire study sample, with a predominance in women who had their first sexual intercourse before age 18 (61%) and had only one steady partner (71.7%). In the variable on the use of hormonal contraceptives high NR percentage (63.4%), and noting the lack of a record so significant and important for the preventive measures of STDs and family planning district.

Table 2 – Main Socioeconomic characteristics of the sample. Santa Cruz, RN, Brazil, 2011

Variable	Category	N	%
First Sexual Intercourse (Years)	11-17	125	61
		70	34,1
		10	4,9
Number of Partners	18-24	149	72,7
		37	18
		19	9,3
Hormonal Contraception	25-35	15	7,3
		60	29,3
		130	3,4
Total	**A steady partner**	**205**	**100**

Table 3 shows the socioeconomic variables sample with data on women affected by HPV. The dominance in this case occurred in women aged 19-30 years (52.6%), married (57.9%), white (42.1%), who studied up to incomplete secondary education (52.7%) and with monthly income of up to one minimum wage (42.1%). In this table there was the variables education and monthly income NR 26.3% and 42.1% of the charts respectively.

Table 4 shows the main economic variables of the sample that was affected by HVP where the prevalence was in women who had their first sexual intercourse before age 18 (52.6%) and has only one steady partner (57.9%). In the variable on the use of hormonal contraceptives was observed in most of the records analyzed the presence of lack of registration (63.1%).

Table 3 – Socio-economic characteristics of the sample affected by HPV. Santa Cruz, RN, Brazil, 2011

Variable	Category	N	%
Age (Years)	19-30	10	52,6
	31-44	5	26,3
	45-61	4	21,1
Marital Status	Married	11	57,9
	Single	7	36,8
	Widow	0	0
Race/Color	White	8	42,1
	Black	7	36,8
	Brown	4	21,1
Education	Complete Higher Education	1	5,2
	Higher Education Incomplete	0	0
	Complete High School	3	15,8
	Incomplete High School	4	21,1
	Complete Primary Education	2	10,5
	Elementary school Incomplete	4	21,1
	Illiterate	0	0
	Not Registered	5	26,3
Monthly income	Minimum Salary	8	42,1
	> 01 Minimum Wage	3	15,8
	Not Registered	8	42,1
Total	**Category**	**19**	**100**

Table 4 – Main socioeconomic characteristics of the sample affected by HPV. Santa Cruz, RN, Brazil, 2011

Variable	Category	N	%
First Sexual Intercourse (Years)	15-17	10	52,6
		7	36,9
		2	10,5
Number of Partners	18-20	11	57,9
		8	42,1
		0	0
Hormonal Contraception	27-38	3	15,9
		4	21,0
		12	63,1
Total	**A Steady Partner**	**19**	**100**

DISCUSSION

Sexually Transmitted Diseases represent one of the main causes for the demand for health services, five people who go to a health service one is with an STD. The Human Papillomavirus as the currently most prevalent STD presents in the world, being responsible for most cases of cervical cancer, appearing also more common in poor areas of education and socio-economically.

Studies related to prevalence of HPV infection and the socioeconomic profile of the population affected arouses the interest of the scientific community, health professionals and the general population. Because the incidence of this disease, this fact is a public health problem, since delayed diagnosis and weakened prevention programs lead to adverse clinical outcomes, resulting in impairment in women's health and even death.

The need to understand and analyze the factors related to the development of the disease refers to knowledge of the socio-economic, environmental and political determinants of the health-disease of a given community. Thus, instead of considering only the concept of etiological and risk factors, which are restricted to the biological aspects of individual character, the studies must turn to the determinants of the collectivity's characteristics.[17]

The prevalence of HPV in women attending a basic unit of municipality's health was 9.26%, that is, 19 cases analyzed 205 medical records. The research aimed to describe the profile of the women affected by the virus and draw a socioeconomic profile of the sample.

As Table 3 research has shown that the prevalence of infection occurred in young women aged between 19 and 30 years, observing a decline in infection after 45 years. Thus, the prevalence by age is according to a study in 2008 in Campinas/SP and São Paulo/SP which was observed high prevalence of HPV in young women and the decrease of this occurrence after this age.[18] In addition to the social habits related to HPV infection in young women, another factor may relate. Girls have high biological activity and high cervical cell replication, favoring viral entry in the cross-sectional study conducted in six infected women.[19] Capital revealed that the prevalence of HPV in both men and women occurred between the ages of 15 and 19, showing that infection with this virus is predominantly early in life sexual.[8]

With regard to marital status, the prevalence of HPV was among married women. Therefore, this study was very similar to a study in the fortress, where it was observed that the prevalence was associated with higher exposure of women to STD, by relying on its partners and not using preventive methods.[20] In a study held in two cities in Japan and one in Brazil about the completion of the screening test, we noticed a predominance of married women. It is believed that these women adhere more easily to the examination as a routine procedure for family planning programs and pre-natal.[21]

The prevalence of HPV in relation to the variable color was more prevalent in white women than black. According to the literature, this result can be associated with not performing the examination by the brown and black women and can contribute to an untrusted data regarding the prevalence of HPV in this group.[22]

Regarding the education and the monthly wage income of women affected by HPV there was a predominance of women who have studied up to incomplete high school and has a monthly salary income up to the minimum wage. According to the literature, there is a close affinity between low educational level and salary income. People in this group are more susceptible to HPV infection. Thus, it analyzes that these users are subjected to a higher risk of infection, for use at lower frequency health promotion services and prevention of desieses.[23]

With regard to the age of first intercourse, more than half of women infected with HPV was sexually active before the age of 18. According to a cross-sectional study, women who become sexually active too early may result in increased exposure, a higher frequency of sexual intercourse and more partners.[18]

In relation to the number of sexual partners, there was no significant difference compared to women who have a partner or who do not have a steady partner. Since the predominance occurred in women with only a fixed partner. According to a study conducted in Rio de Janeiro, the prevalence of STDs occur in women with more than two partners, because they present a greater exposure.[24] This variability of partners cited in the scientific literature was not confirmed in our sample.

There was also no significant difference between women with HPV who use hormonal contraception. Mainly because of the non-registration of their medical records (63.1%). There is some controversy about the importance of contraceptives in the incidence of HPV. This opens a wide discussion on the subject. Some authors believe that the hormonal contraception is a factor that increases the incidence for HPV due to hormonal changes in women.[19] There are others who claim that the contraceptive increases

the activity of the virus, since the infection is already installed, stimulating the transformation of viral oncogenes.[25]

CONCLUSIONS

The study was relevant to characterize the epidemiological profile of users assisted in a basic health unit, where it was observed that they are vulnerable to the involvement of HPV, as are presented as young, married, low education and family income and that sexual initiation before age 18.

Thus, it is essential to introduce educational practices in health in the district in question, since most records analyzed were poorly educated users and consequently with little knowledge about the subject. Health education should be implemented on a reciprocal basis between the community and UBS that offers this service in order to correlate the theory and practice of experienced both sides, without authoritarianism of knowledge of health professionals. However, with such inclusion it will be a closer approximation of the users with the STD issue aimed at raising awareness of prevention methods.

However, one cannot talk about educational practices without discussing the family planning that should be carried out on UBS. This planning is an action carried out mainly by nurses, primary care aimed, in addition to unplanned pregnancies and high-risk pregnancies, a better quality of life between the couple to family. In the planning are offered all contraceptive methods, since the hormone that prevents just expecting barrier and who, moreover, also protects against STDs. So, it is understood that the strengthening of family planning is very important to keep the number of children within the expected by the families and also for the prevention of sexually transmitted infections.

Another crucial point is the correct recording of information to feed the Information System of the Basic Attention-SIAB, system that displays all health-related data in Brazil. Within the SIAB there is the Information System of the uterus cervical cancer (SISCOLO), where all the information about the screening test in Brazil are. This system generates information on the prevalence and incidence of cervical cancer, as well as the most affected and the most susceptible population. Then it is observed the importance of the registry to generate information related to health and disease of the population.

REFERENCES

1. Minotto F. Influência da infecção genital pelo Papilomavirus humano no ciclo de resposta sexual feminino [Dissertação de Mestrado]; São Paulo: Faculdade de Medicina da Universidade de São Paulo. 2009.
2. Araújo MAL, Bucher J, Bello PY. Eficácia do aconselhamento para doenças sexualmente transmissíveis em unidades de referência da cidade de Fortaleza, CE, Brasil. J Bras Doenças Sex Transm. 2004;16(1):31-7.
3. Carret MLV, Fassa AG, Silveira DS, Bertoldi AD, Hallal PC. Sintomas de doenças sexualmente transmissíveis em adultos: prevalência e fatores de risco. Revista de saude publica. 2004;38(1):76-84.
4. Brasil. Ministério da Saúde. Departamento de DST AeHVPsa, doenças sexualmente transmissíveis e hepatites virais. [internet]. Brasilia. Ministério da Saúde; [acesso em 12 de nov 2012]. Disponível em: http://www.aids.gov.br/pagina/condiloma-acuminado-hpv.
5. Murray PR, Rosenthal KS, Kobayashi GS, Pfaller MA. Medical microbiology. 4th ed. St. Louis: Mosby; 2002.
6. Ault KA. Epidemiology and natural history of human papillomavirus infections in the female genital tract. Infectious diseases in obstetrics and gynecology. 2006.
7. Smeltzer S, BARE B, Hinkle J, Cheever K. Brunner. Suddarth tratado de enfermagem médico-cirúrgica. 2010;7.
8. Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Programa Nacional de DST e Aids.. Prevalências e freqüências relativas de Doenças Sexualmente Transmissíveis (DST) em populações selecionadas de seis capitais brasileiras, 2005. Brasilia: Minstério da Saúde, 2008.
9. Brasil. Ministério da Saúde. Instituto Nacional do Câncer – INCA. Estimativas da Incidência e Mortalidade por Câncer no Brasil para 2012. [internet]. Rio de Janeiro: Instituto Nacional do Câncer; [acesso em 15 out 2012]. Disponível em: http://www.inca.gov.br/estimativa/2012/index.asp?ID=5.
10. Bertolin DC RR, Cesarino CB, Silva DC, Prado DO, Parro EV. Conhecimento de mulheres que fazem sexo com mulheres sobre o papilomavírus humano. Cogitare Enfermagem. 2010;15(4):730-5.
11. Peretto M, Drehmer LBR, Bello HMR. o não comparecimento ao exame preventivo do câncer de colo uterino: razões declaradas e sentimentos envolvidos. Cogitare Enfermagem. 2012;17(1).
12. Baseman JG, Koutsky LA. The epidemiology of human papillomavirus infections. Journal of Clinical Virology. 2005;32:16-24.
13. Cesar JA, Horta BL, Gomes G, Houlthausen RS, Willrich RM, Kaercher A, et al. Fatores associados à não realização de exame citopatológico de colo uterino no extremo Sul do Brasil. Cadernos de saúde pública. 2003;19(5):1365-72.
14. Israel GD. Determining sample size: University of Florida Cooperative Extension Service, Institute of Food and Agriculture Sciences, EDIS; 1992.
15. Barbetta PA. Estatística aplicada às ciências sociais: Ed. UFSC; 2008.
16. de Novais TGG, Laganá MTC. Epidemiologia do câncer de colo uterino em mulheres gestantes usuárias de um serviço de pré-natal público. Saúde Coletiva. 2009;27(6):713.
17. Kadt E TR. Promovendo a equidade: um novo enfoque com base no setor da saúde. São Paulo: HUCITEC. 1993.
18. Rama CH, Roteli-Martins CM, Derchain SFM, Longatto-Filho A, Gontijo RC, Sarian LOZ, et al. Prevalência do HPV em mulheres rastreadas para o câncer cervical. Revista de saude publica. 2008;42(1):123-30.
19. Murta EFC, Souza M, Júnior E, Adad S. Infecção pelo papilomavírus humano em adolescentes: relação com o método anticoncepcional, gravidez, fumo e achados citológicos. Rev Bras Gineco Obstet. 2001;23(4).
20. Bezerra SJS, Gonçalves PC, Franco ES, Pinheiro AKB. Perfil de mulheres portadoras de lesões cervicais por HPV quanto aos fatores de risco para câncer de colo uterino. J Bras Doenças Sex Transm. 2005;17(2):143-8.
21. Chubaci RYS, Merighi MAB. Exame para detecção precoce do câncer cérvico-uterino: vivência de mulheres das cidades de Kobe e Kawasaki, Japão e São Paulo, Brasil; Cervical cancer screening: experience of women from Kobe and Kawasaki cities, Japan and São Paulo city, Brazil. Rev bras saúde matern infant. 2005;5(4):471-81.
22. Hackenhaar AA, Cesar JA, Domingues MR. Exame citopatológico de colo uterino em mulheres com idade entre 20 e 59 anos em Pelotas, RS: prevalência, foco e fatores associados à sua não realização; Pap smears of 20-59 year-old women in Pelotas, Southern Brazil: prevalence, approach and factors associated with not undergoing the test. Rev bras epidemiol. 2006;9(1):103-11.
23. Davim RMB, Torres G, Silva R, Silva D. Conhecimento de mulheres de uma Unidade Básica de Saúde da cidade de Natal/RN sobre o exame de Papanicolau. Rev Esc Enferm USP. 2005;39(3):296-302.
24. Taquette SR, Vilhena MM, Paula MC. Doenças sexualmente transmissíveis na adolescência: estudo de fatores de risco. Revista da Sociedade Brasileira de Medicina Tropical. 2004;37(3):210-4.
25. Geller M, Aboim E, Campos CD. Papilomavírus humano – fatores de risco, carcinogênese, resposta imune e tratamento. J Bras Med 2008; 94(3): 43-46.

Received on: 20/03/2014
Reviews required: Não
Approved on: 17/09/2016
Published on: 01/10/2016

Mailling address:
Richardson Augusto Rosendo da Silva
Universidade Federal do Rio Grande do Norte
Campus Central. Departamento de Enfermagem
Rua Lagoa Nova, S/N
Natal (RN), Brazil
ZIP Code: 59078-970