

Notification of cytopathological exams in the Unaí, Minas Gerais, Brazil

Notificação de exames citopatológicos em Unaí, Minas Gerais, Brasil

DOI:10.34119/bjhrv6n3-291

Recebimento dos originais: 26/04/2023 Aceitação para publicação: 01/06/2023

Amanda Alves Figueiredo

Graduate in Nursing

Institution: Faculdade de Ciências da Saúde de Unaí (FACISA) - Unaí Address: Rodovia BR 251, KM 904, bairro Jacilândia, Unaí - MG E-mail: amanda_alves_figueiredo@outlook.com

Kely Cristina Kaefer

Graduate in Nursing

Institution: Faculdade de Ciências da Saúde de Unaí (FACISA) - Unaí Address: Rodovia BR 251, KM 904, bairro Jacilândia, Unaí - MG E-mail: kelykaeferkk@gmail.com

Leandro Silva Menezes

Postgraduate in Elderly Health and Gerontology Institution: Faculdade de Ciências da Saúde de Unaí (FACISA) - Unaí Address: Rodovia BR 251, KM 904, bairro Jacilândia, Unaí - MG E-mail: leandro.menezes@facisaunai.edu.br

Vanderlene Pinto Brandão

Postgraduate in Oncology and Hematology Institution: Faculdade de Ciências da Saúde de Unaí (FACISA) - Unaí Address: Rodovia BR 251, KM 904, bairro Jacilândia, Unaí - MG E-mail: vanderlene.brandao@facisaunai.edu.br

Maria das Neves Martins

Master's in Social Sciences
Institution: Faculdade de Ciências da Saúde de Unaí (FACISA) - Unaí
Address: Rodovia BR 251, KM 904, bairro Jacilândia, Unaí - MG
E-mail: maria.martins@facisaunai.edu.br

Paula Rodrigues de Oliveira

Graduate in Nursing
Institution: Faculdade Cidade de João Pinheiro
Address: Av. Zico Dornelas, 380, Santa Cruz, João Pinheiro - MG, CEP: 38770-000
E-mail: paularodriguez48@hotmail.com



Marília Xavier Maciel

Medicine Student

Institution: Centro Universitário do Planalto Central Professor Aparecido dos Santos (UNICEPLAC)

Address: SIGA Área Especial para Indústria Lote 2/3, Sce St. Leste Industrial, Gama, Brasília - DF, CEP: 72445-020

E-mail: marilia_dombosco@hotmail.com

Danielle Galdino de Souza

PhD Candidate Nanoscience and Nanobiotechnology Instituição: Universidade de Brasília (UnB) Address: Campus Universitário Darcy Ribeiro, Brasília-DF, CEP: 70910-900 E-mail: danielle.galdino@hotmail.com

ABSTRACT

The onset of sexual activity in adolescence suggests an important cause for the increased prevalence of HPV and lesions caused by its infection, such as cervical cancer. Cervicovaginal cytopathological exam is considered the main prevention and early detection strategy for this type of cancer and precursor lesions. The aim of this study was to present the clinical and epidemiological profile of cytopathological tests carried out by adolescents aged 15-19 years in the city of Unaí, Minas Gerais, Brazil. The methodological processes were established in an epidemiological, descriptive, cross-sectional study with a quantitative approach. The study population consisted of 195 cytopathological tests from teenagers, aged 15-19 years, corresponding to an adolescent public with active sexual activity, registered in SISCAN according to the tests reported in SISCOLO between 2014-2020. Analyzing the data, it was possible to verify a low adherence of adolescents to preventive exam, that performance of cytopathological exams was conducted mainly for screening (89.8%, n = 175), and that 71.3% (n = 139) were not considered within normal limits, so it can be concluded that there should be a reduction in the minimum age for the preventive exam, in addition to greater emphasis on health education actions for young women.

Keywords: cervical intraepithelial neoplasia, cervix uteri, uterine cervical diseases.

RESUMO

O início da atividade sexual na adolescência sugere uma causa importante para o aumento da prevalência do HPV e das lesões causadas por sua infecção, como o câncer do colo do útero. O exame citopatológico cervicovaginal é considerado a principal estratégia de prevenção e detecção precoce desse tipo de câncer e lesões precursoras. O objetivo deste estudo foi apresentar o perfil clínico e epidemiológico dos exames citopatológicos realizados por adolescentes de 15 a 19 anos na cidade de Unaí, Minas Gerais, Brasil. Os processos metodológicos foram estabelecidos em um estudo epidemiológico, descritivo, transversal, com abordagem quantitativa. A população do estudo foi composta por 195 exames citopatológicos de adolescentes, na faixa etária de 15 a 19 anos de idade, correspondentes a um público adolescente com atividade sexual ativa, cadastrados no SISCAN de acordo com os exames informados no SISCOLO entre 2014-2020. Analisando os dados, foi possível verificar uma baixa adesão dos adolescentes ao exame preventivo, que a realização de exames citopatológicos foi realizada principalmente para triagem (89,8%, n = 175), e que 71,3% (n = 139) não foram considerados limites de normalidade, portanto, pode-se concluir que deve haver redução da idade mínima para o exame preventivo, além de maior ênfase nas ações de educação em saúde para mulheres jovens.



Palavras-chave: neoplasia intraepitelial cervical, colo do útero, doenças do colo do útero.

1 INTRODUCTION

The control of neoplasms includes ordered actions in health promotion, prevention, early detection, treatment, and palliative care. It is noteworthy that development of public policies and educational strategies strengthen preventive approach to cervical cancer, reaching peculiarities of different age groups (SILVEIRA et al., 2016).

Cervicovaginal cytopathological exam is considered the main prevention and early detection strategy for this type of cancer and its precursor lesions. This test is also known as oncotic colpocytology, pap smear or preventive test, tracking pre-invasive lesions in women who have already started sexual activity. It can be carried out periodically, the first two in interval of 1 (one) year, and every three years, if the previous ones have presented negative results (BRASIL, 2016).

It is widely offered to female public who have already had sexual activity, comprising an age group between 25 and 64 years of age, as it is a low-cost, painless, effective method and, in addition, it can be performed by any professional when it is capable (PEREIRA et al., 2018).

However, it has been observed that beginning of sexual life has occurred early in adolescents aged between 13-15 years. This phase involves the discovery of sexual pleasure, which can lead to problems such as an unwanted pregnancy and contraction of STDs, factor that can lead to the development of cervical cancer (BATISTA; MASTROENI, 2012; CRUZ; JARDIM, 2013).

Given this context, need to raise the following issue was perceived: It is possible to establish an analysis of the clinical and epidemiological profile of cytopathological tests, carried out by adolescents, aged 15-19 years, in the municipality of Unaí, Minas Gerais, Brazil?

In this sense, the general objective of the study was to present clinical and epidemiological profile of cytopathological tests performed by adolescents, aged 15-19 years, in the city of Unaí-MG, to offer, after, an analysis and discussion about the data collected.

Concern about uterine cancer in Brazil is considered, mainly due to the active sexual and reproductive profile of adolescent female public. Within this context, the study is justified by the need to present clinical and epidemiological profile of cytopathological tests in adolescents, with the aim of fundamentally promoting the active presence of nurses in public health. Since nurses must articulate, through continuing education for professionals and all information, need to promotion and prevention of women when performing Pap smear.



2 MATERIALS AND METHODS

This is an epidemiological, descriptive, and cross-sectional study, with a quantitative approach, in which, according to Lima-Costa e Barreto (2003) and Bordalo (2006), it involves an in-depth assessment of information available in order to clarify the context of a phenomenon, established by the characteristics of target population, defined place, time and relationship between variables.

The study population consisted of 195 cytopathological tests in age group of 15-19 years old, corresponding to an adolescent public with active sexual activity, registered in SISCAN. The sample was based on the exams reported in SISCOLO between the period 2014 to 2020.

This study corresponded to establishing a data collection in the municipality of Unaí, located in the northwestern mesoregion of Minas Gerais, Brazil, as shown in Figure 1, in cerrado biome, tropical climate, with an area of 8,464 km², demographic density of 9, 18 inhab/km², Human Development Index (HDI) 0.736, according to the last census in 2010, with population estimates of approximately 85 thousand inhabitants for 2020 (Brazilian Institute of Geography and Statistics [IBGE], 2021). It was not possible to establish a proportion of female population in age group proposed by this study.

The data source adopted was established through SISCAN records, publicly available online

(http://www2.datasus.gov.br/DATASUS/index.php?area=0203&id=34622400&VObj=), using the SISCAN tool – CITO DO COLO – BY RESIDENCE – MINAS GERAIS.

Inclusion criteria corresponded to the variables: (1) number of exams performed in the target population between 2014 and 2020; (2) previous cytology and preventive period (percentage of women who reported not having undergone the test previously); (3) reason for the exam (percentage of women who underwent the exam by screening, repetition and follow-up); (4) suitability of the material (quality of the exam); (5) representativeness of the transformation zone; (6) within the normal range of the material examined; (7) percentage of exams showing atypia in squamous and glandular cells.

Exclusion criteria were established by the age group outside 15-19 years of age and the variable education in which he was not interested in recording in a table because all the quantity of samples was registered as 'ignored' in the system. Presentation of the extracted data was established by a table with absolute frequencies and percentages of samples, being prepared using Microsoft Excel®, version 2019.



As this data is in the public domain, it was not necessary / mandatory to send it for analysis and approval by the Research Ethics Committee (REC), but legal and ethical aspects involving research with human beings were respected, based on the Resolution CNS 466/2012.

3 RESULTS AND DISCUSSION

Is expected of early sexual activity, especially in developing countries such as Brazil, can lead to an increase in the number of cases of HPV infection and other lesions in the age group of 15-19 years, considered a phase of late adolescence (BAGGIO et al., 2018).

Therefore, there was a need to establish a clinical and epidemiological profile of cytopathological tests of adolescents in Unaí-MG, and it was verified that 195 tests were performed, corresponding to the age group of 15-19 years old, between the years 2014-2020 (Fig. 1). It was observed that in 2016 there were 104 Pap smear tests, showing an increase in records compared to the years before and after this one. Underreporting of SICOLO information is possible, noting that health professionals who perform the collection of cytopathological material report more age group from 25 to 64 years, recommended by the Ministry of Health (2006), while samples obtained outside the age group are usually sent to private laboratories (Fig. 1).

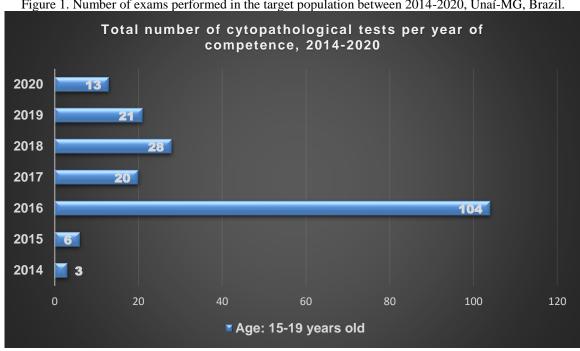


Figure 1. Number of exams performed in the target population between 2014-2020, Unaí-MG, Brazil.

Source: SISCOLO, 2021.

Corresponding results to previous cytology (n = 195), between years 2014 and 2020,



65.5% had not performed previous cytopathological examination, occurring a greater number of cases in 2016, 35.4% (n = 69) (Table 1a). This observed aspect is probably justified by the age group investigated between 15-19 years, considering that it is recommended by the Ministry of Health (2006), Pap smear test between 25 and 64 years old, with an examination performed at every three years after two consecutive annual examinations.

However, it is noteworthy that the age for onset of sexual activity has been occurring at an early age and this anticipation of sexual initiation brings greater concern, as the immaturity of genital tissues as a predisposing factor for HPV and, consequently, for cervical cancer.

Other relevant aspects that need to be highlighted are around the fact that the onset of early sexual activity can involve multiple partners, low adherence to condom use and fear or shame for carrying out Pap smear tests (SANCHES et al., 2017).

In this study, the reasons for the exam were screening, representing 89.8% (n=175) (Table 1a). According to WHO (2007), screening aims to identify lesions suggestive of cancer and refer them for investigation and treatment. Therefore, because they are young people, it is expected that most tests are screening, being offered by the Sistema Único de Saúde (SUS), as part of Primary Health Care (PHC) and women's health policies.

Considering that the screening method considers the first two exams to be performed in the annual interval, according to the Ministry of Health (2016), the data from the present study with a periodicity of 1 year (13.2%) is justified, in the range aged from 15 to 19 years old, represented with the highest number of notifications, followed by 2 years (4%). In addition, it is worth highlighting the importance of annual screening, considering the aspect that adolescents with intact immune systems will only have a clearing of their infection within 24 months (SPECK et al., 2015).



Table 1a. Clinical-epidemiological profile of cytopathological tests performed in the age group 15-19 years of age per competence year, Unaí, Minas Gerais, Brazil, 2014-2020.

Variables (n=195)	Competence Year															
	2014		2015		2016		2017		2018		20	019	2020		Total	(n=195)
	n	%	N	%	N	%	n	%	N	%	n	%	n	%	n	%
PREVIOUS CYTOLOGY																
Yes	0	0	2	1,0	25	12,8	8	4,1	5	2,6	2	1,0	3	1,5	45	23,0
No	3	1,5	2	1,0	69	35,4	11	5,6	17	8,7	17	8,7	9	4,6	128	65,5
Do not know	0	0	2	1,0	10	5,1	1	0,5	6	3,1	1	0,5	0	0	20	10,2
No information in the form	0	0	0	0	0	0	0	0	0	0	1	0,5	1	0,5	2	1,0
Total	3	1,5	6	3,0	104	53,3	20	10,2	28	14,4	21	10,7	13	6,6	195	100,0
PREVENTIVE PERIOD																
Same year	0	0	0	0	2	1,0	3	1,5	1	0,5	0	0	1	0,5	7	3,5
1 year	0	0	2	1,0	17	8,7	3	1,5	3	1,5	1	0,5	0	0	26	13,2
2 years	0	0	0	0	2	1,0	2	1,0	1	0,5	1	0,5	2	1,0	8	4,0
3 years	0	0	0	0	3	1,5	0	0	0	0	0	0	0	0	3	1,5
4 year or more	0	0	0	0	1	0,5	0	0	0	0	0	0	0	0	1	0,5
Ignored (blank)	3	1,5	4	2,1	79	40,5	12	6,2	23	11,8	19	9,7	10	5,1	150	76,9
Total	3	1,5	6	3,1	104	53,2	20	10,2	28	14,3	21	10,7	13	6,6	195	100,0
REASON FOR																
THE EXAM																
Screening	3	1,5	6	3,1	98	50,3	14	7,2	24	12,3	18	9,2	12	6,2	175	89,8
Repetition	0	0	0	0	0	0	1	0,5	1	0,5	1	0,5	0	0	3	1,5
Follow up	0	0	0	0	6	3,1	5	2,6	3	1,5	2	1,0	1	0,5	17	8,7
Total	3	1,5	6	3,1	104	53,4	20	10,3	28	14,3	21	10,7	13	6,7	195	100,0

Source: SISCOLO, 2021.



Regarding the suitability of the material, it was found that there were no rejected or unsatisfactory materials, being considered only as satisfactory (100%, n=195) (Table 1b). The suitability of collected material is the responsibility of the person responsible for carrying out examination, and the sample that presents cells in a representative quantity, well distributed, fixed, and stained is considered satisfactory (GEREMIA et al., 2016).

Representativeness of the transformation zone was 56.3% (n=110), considered a quality indicator of satisfactory samples, while absence was identified in 43.3% (n=85) (Table 1b), associating limitation of visualization and interpretation of collected sample, contributing to false-negative results due to a poor performance of exam collection (GASPARIN et al., 2016).

It is important to highlight that 90% of the precursor lesions of cervical cancer arise in the transformation zone of the cervical epithelium, characterized by the squamous-columnar junction that maintains high mitotic and metaplastic activity during adolescence, making it susceptible to cancer (SOUSA et al., 2018).



Table 1b. Clinical-epidemiological profile of cytopathological tests performed in the age group 15-19 years of age per competence year, Unaí, Minas Gerais, Brazil, 2014-2020.

	Competence Year															
Variables (n=195)	2	014	2015		20	016	2	017	2	018	2019		2020		Total (n=195)	
	n	%	N	%	n	%	N	%	n	%	n	%	n	%	N	%
SUITABILITY OF																
MATERIAL																
Rejected	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Satisfactory	3	1,5	6	3,1	104	53,3	20	10,3	28	14,4	21	10,8	13	6,7	195	100,0
Unsatisfactory	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	1,5	6	3,1	104	53,3	20	10,3	28	14,4	21	10,8	13	6,7	195	100,0
REPRESENTATION OF				-		-				•						•
THE																
TRANSFORMATION																
ZONE																
Yes	3	1,5	4	2,1	48	24,6	10	5,1	19	9,7	16	8,2	10	5,1	110	56,3
No	0	0	2	1,0	56	28,7	10	5,1	9	4,6	5	2,6	3	1,5	85	43,5
Total	3	1,5	6	3,1	104	53,3	20	10,2	28	14,3	21	10,8	13	6,6	195	100,0
WITHIN THE LIMITS																
OF NORMALITY IN THE																
MATERIAL EXAMINED																
Yes	1	0,5	1	0,5	41	21,0	4	2,1	4	2,1	4	2,1	1	0,5	56	28,7
No	2	1,0	5	2,6	63	32,3	16	8,2	24	12,3	17	8,7	12	6,2	139	71,3
Total	3	1,5	6	3,1	104	53,3	20	10,3	28	14,4	21	10,8	13	6,7	195	100,0
ATYPIAS IN																
SQUAMOUS CELLS																
LSIL	0	0	1	0,5	1	0,5	0	0	3	1,5	0	0	0	0	5	2,5
HSIL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HSIL-micro	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Invasive squamous cell	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
carcinoma	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Ignored (blank)	3	1,5	5	2,6	103	52,8	20	10,3	25	12,8	21	10,8	13	6,7	190	97,5
Total	3	1,5	6	3,1	104	53,3	20	10,3	28	14,3	21	10,8	13	6,7	195	100,0

Source: SISCOLO, 2021.



In this study, it was found that 2.5% (n = 5) resulted from low-grade squamous intraepithelial lesion (LSIL), while 1.5% (n = 3) resulted from possibly non-neoplastic squamous cells of undetermined significance (ASC -US) (Table 1c). As described by Ribeiro et al. (2019), women who manifest LSIL or ASC-US must undergo an examination in 6 or 12 months, depending on age. It is important to highlight that the presence of ASC-US does not rule out the occurrence of high-grade intraepithelial lesions, but it still highlights those changes often found in adolescents are low grade (BAGGIO et al., 2018).

However, evolution of LSIL to cervical cancer, even though it is uncommon, can happen if there is a progression of the lesion over time or even an underdiagnosis of the cytopathological exam (GONÇALVES et al., 2010). Despite this statement, lesions are still considered to resolve spontaneously in young women (< 30 years of age).

In addition, the development of high-grade intraepithelial lesions and cervical carcinoma are related to a persistent HPV infection in women (ETLINGER et al., 2008), which becomes understandable and possible correlation with the fact that in this present study there is no have had results about high-grade squamous intraepithelial lesion (HSIL) and high-grade intraepithelial lesion, which cannot exclude microinvasion (HSIL-micro).



Table 1c. Clinical-epidemiological profile of cytopathological tests performed in the age group 15-19 years of age per competence year, Unaí, Minas Gerais, Brazil, 2014-2020.

	Competence Year 2014 2015 2016 2017 2018 2019 2020 Total (n															
Variables (n=195)	2)14 201		015	15 2016				17 2		2019		2020		Total (n=195	
	n	%	n	%	n	%	N	%	n	%	n	%	n	%	n	%
ATYPIAS IN										•						
GLANDULAR CELLS																
Adenocarcinoma in situ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Invasive cervical adenocarcinoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Invasive endometrial adenocarcinoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Invasive adenocarcinoma not otherwise specified	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ignored (blank)	3	1,5	6	3,1	104	53,3	20	10,3	28	14,4	21	10,8	13	6,7	195	100,0
Total	3	1,5	6	3,1	104	53,3	20	10,3	28	14,4	21	10,8	13	6,7	195	100,0
SQUAMOUS CELL OF		•						•		•		•				•
UNDETERMINED																
MEANING																
ASC-US	0	0	0	0	1	0,5	0	0	1	0,5	1	0,5	0	0	3	1,5
ASC-H	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ignored (blank)	3	1,5	6	3,1	103	52,8	20	10,3	27	13,8	20	10,3	13	6,7	192	98,5
Total	3	1,5	6	3,1	104	53,3	20	10,3	28	14,3	21	10,8	13	6,7	195	100,0
GLANDULAR CELL OF INDETERMINATE MEANING																
Glandular - possibly non- neoplastic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Glandular - high-grade injury cannot be ruled out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ignored (blank)	3	1,5	6	3,1	104	53,3	20	10,3	28	14,4	21	10,8	13	6,7	195	100,0
Total	3	1,5	6	3,1	104	53,3	20	10,3	28	14,4	21	10,8	13	6,7	195	100,0

Source: SISCOLO, 2021.



ISSN: 2595-6825

It was verified that there were no samples with the presence of glandular cells of undetermined significance, atypical cells of undefined origin, other malignant neoplasms, and endometrial cells (Table 1d). It is noteworthy that generally potentially malignant neoplastic lesions can occur with a higher incidence in the age group of 30 to 49 years of age, especially with changes in previous examination corresponding to atypia of undetermined meaning or intraepithelial lesion (ROCHA; BAHIA; ROCHA, 2016).



Table 1d. Clinical-epidemiological profile of cytopathological tests performed in the age group 15-19 years of age per competence year, Unaí, Minas Gerais, Brazil, 2014-2020.

	Competence Year															
Variables (n=195)	2014		2015		2016		2017		2018		2019		2020		Total (n=195)	
	n	%	n	%	n	%	N	%	n	%	n	%	n	%	n	%
ATYPICAL CELLS OF												•				•
INDEFINITE ORIGIN																
Indefinite - possibly non- neoplastic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Indefinite - high-grade injury cannot be ruled out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ignored (blank)	3	1,5	6	3,1	104	53,3	20	10,3	28	14,4	21	10,8	13	6,7	195	100,0
Total	3	1,5	6	3,1	104	53,3	20	10,3	28	14,4	21	10,8	13	6,7	195	100,0
OTHER MALIGNANT																
NEOPLASMS																
Yes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	1,5	6	3,1	104	53,3	20	10,3	28	14,4	21	10,8	13	6,7	195	100,0
PRESENCE OF				,				,				•		-		
ENDOMETRIAL CELLS																
Yes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ignored (blank)	3	1,5	6	3,1	104	53,3	20	10,3	28	14,4	21	10,8	13	6,7	195	100,0
Total	3	1,5	6	3,1	104	53,3	20	10,3	28	14,4	21	10,8	13	6,7	195	100,0

Source: SISCOLO, 2021.

Lagend: LSIL (low-grade squamous intraepithelial lesion); HSIL (high-grade squamous intraepithelial lesion); HSIL-micro (High-grade intraepithelial lesion, which cannot exclude microinvasion); ASC-US (Squamous - possibly non-neoplastic); ASC-H (Squamous - high-grade lesion cannot be ruled out).



According to the Ministry of Health (2016), nurses in primary care play the role of developing actions to prevent cervical cancer through health education actions, vaccination of indicated groups and early detection of cancer and its lesions precursors through their screening.

The nursing consultation must include the realization of a history in addition to the biological aspects. Elaboration of nursing diagnoses must, in turn, contemplate actions, adopting or not established taxonomies or the denomination of problems or care needs and, finally, care plan includes techniques, standards and procedures that guide and control carrying out actions aimed at obtaining, analyzing and interpreting information about health conditions of clientele, decisions regarding guidance and other measures that may influence the adoption of practices favorable to health (MACIEL; ARAUJO, 2003).

Therefore, mastery of communication skills, observation and propaedeutic techniques is assumed, making the nurse, in fact, to have a defined role in the health service.

According to Zampirolo et al. (2007), services provided by primary care should be as close as possible to the place of residence or work of individuals, services considered secondary and tertiary care, classified according to degree of complexity and technological density of care that service available should serve as a reference for a set of primary care units and provide care through referral through logistical systems, such as regulation centers.

According to the Ministry of Health (2016), specialized care consists of units that may or may not be in the structure of a hospital, outpatient units and diagnostic and therapeutic support services, responsible for offering consultations and specialized examinations.

In the case of the cervix, the secondary unit must confirm the diagnosis and treat the precursor lesions of this cancer on an outpatient basis by performing colposcopies, biopsies and type 1 excision and some type 2 excisions.

In general, the flow of referrals and continuity of care necessary to ensure comprehensive care in the RAS for the control of cervical cancer depend on planning, organization and decisions by local SUS managers and their technical teams.

Despite the improvement in the coverage of cytological examination in Brazil, it is still considered insufficient to reduce mortality from CC in the country. Furthermore, the quality of exams and the staging in which cases are diagnosed are other factors that can influence this scenario (MALTA, 2014).

However, the Ministry of Health (2016) mentions that current strategy for the organization of health care towards effective guarantee of the right to comprehensive care, resolutely, with quality and extensive to all citizens, has been based on the institution of the Health Regions. By definition, these continuous geographic spaces are constituted by groups of



neighboring territories or municipalities, with the purpose of integrating organization, planning and execution of health actions and services for the control of diseases, including cervical cancer.

Given this scenario, it is necessary to invest in development of actions for the prevention and control of cervical cancer, which should cover different levels of action such as: health promotion, early detection, patient care, surveillance, training of resources human resources, communication and social mobilization, research and management of the SUS. From this perspective, one can see the effective participation of nursing in all cervical cancer prevention and control activities proposed by the Ministry of Health, which includes health promotion actions.

Based on the analysis carried out in this study, it was found that it was possible to draw a clinical and epidemiological profile of adolescents who underwent cytopathological tests between 2014 and 2020 in the municipality of Unaí, Minas Gerais. Since, through the age group investigated (15-19 years), it was noticed that despite minimum age for screening for lesions suggestive of cervical cancer recommended by the Ministry of Health to be from 25 years old, the beginning of sexual life takes place prior to this age, and verifying that the region of the transformation zone in adolescence is immature, when sexual activity begins early, it becomes susceptible to aggression, contributing to occurrence of chronic inflammatory processes in the cervix.

Thus, the need for a reduction in the minimum age for preventive examination of the cervix is reiterated, suggested by large percentage of exams outside normal range (71.3%), which corresponds to 139 of the 195 young people aged 15 to 19 years old. In addition to a greater emphasis on health education for adolescents.

4 CONCLUSION

It is known that not having the test performed may be related to factors such as marital status, education, income, religion, demographic region, and age. Therefore, the limitations of this study were established by the fact that it was not possible to establish the sociodemographic profile of the adolescents with the variable education because the data were presented as ignored and the race because there was no information data recorded.

Therefore, health education campaigns are necessary, using techniques and languages appropriate for this population, emphasizing the importance of carrying out preventive examinations in young women due to early initiation of sexual activity.



The role of nurses in prevention is extremely important, as it is with them that the patient will have the first contact within the health unit, and when this professional receives this patient with empathy and humanization, along with techniques learned during graduation, explaining the importance of prevention, this patient will have more confidence in the professional, which in turn will make the exam collection more peaceful for both.

The nurse, through educational actions that address the prevention of cervical cancer, the Pap smear and health promotion, can provide a transformation of reality, and increase women adherence to the practice and, consequently, reduce morbidity and mortality by this type of cancer.



REFERENCES

BAGGIO, Katiuscia et al. Exame de Papanicolau em adolescentes e mulheres jovens: análise do perfil citológico. **Adolescência e Saúde,** v.15, n. 3, p. 44-51, 2018. Disponível em: http://adolescenciaesaude.com/detalhe artigo.asp?id=732>. Acesso em: 25 maio 2021.

BATISTA, Rosimeire Pereira Bressan; MASTROENI, Marco Fabio. Fatores associados à baixa adesão ao exame colpocitológico em mães adolescentes. **Acta paul. enferm.**, São Paulo, v. 25, n. 6, p. 879-888, 2012. Disponível em http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0103-21002012000600009&lng=en&nrm=iso. Acesso em: 07 de mar. de 2021.

BORDALO, Alipio Augusto. Estudo transversal e/ou longitudinal. **Rev. Para. Med.**, Belém, v. 20, n. 4, p. 5, 2006. Disponível em http://scielo.iec.gov.br/scielo.php?script=sci_arttext&pid=S0101-59072006000400001&lng=pt&nrm=iso. Acesso em: 30 mar. 2021.

BRASIL. **Diretrizes brasileiras para o rastreamento do câncer do colo do útero.** 2. ed. rev. atual. Rio de Janeiro: INCA, 2016. Disponível em: https://www.inca.gov.br/publicacoes/livros/diretrizes-brasileiras-para-o-rastreamento-do-cancer-do-colo-do-utero. Acesso em: 07 mar. 2021.

CRUZ, DE; JARDIM, DP. Adolescência e Papanicolau: conhecimento e prática. **Adolescência** e Saúde, v. 10, Supl. 1, p. 34-42, 2013. Disponível em: http://adolescenciaesaude.com/detalhe_artigo.asp?id=393&idioma=Portugues. Acesso em: 25 maio 2021.

GEREMIA, Daniela Savi et al. Avaliação da adequabilidade da coleta do exame citopatológico na Estratégia Saúde da Família. **Revista ACRED**, v. 6, n. 11, 2016. Disponível em: <Dialnet-AvaliacaoDaAdequabilidadeDaColetaDoExameCitopatolo-5602111.pdf>. Acesso em: 24 maio 2021.

GONÇALVES, Záfia Rangel et al. Lesões escamosas intraepiteliais de baixo grau: conduta em mulheres adultas. **FEMINA,** v. 38, n. 7, 2010. Disponível em: http://files.bvs.br/upload/S/0100-7254/2010/v38n7/a1517.pdf>. Acesso em: 25 maio 2021.

LIMA-COSTA, Maria Fernanda; BARRETO, Sandhi Maria. Tipos de estudos epidemiológicos: conceitos básicos e aplicações na área do envelhecimento. **Epidemiol. Serv. Saúde**, Brasília, v. 12, n. 4, p. 189-201, dez. 2003. Disponível em http://scielo.iec.gov.br/scielo.php?script=sci_arttext&pid=S1679-49742003000400003&lng=pt&nrm=iso. Acesso em: 30 mar. 2021.

MALTA, Deborah Carvalho et al. **Mortalidade por doenças crônicas não transmissíveis no Brasil e suas regiões, 2000 a 2011**. Epidemiol. Serv. Saúde, Brasília, v. 23, n. 4. 2014.



PEREIRA, Arnaldo Sergio Neris et al. Exame colpocitológico: perfil epidemiológico em uma Estratégia Saúde da Família. **Rev. Cient. Esc. Estadual Saúde Pública Goiás Cândido Santiago,** v. 4, n. 3, p. 171-182, 2018. Disponível em: http://www.revista.esap.go.gov.br/index.php/resap/article/view/84/111. Acesso em: 07 mar. 2021.

RIBEIRO, Caroline Madalena et al. Parâmetros para a programação de procedimentos da linha de cuidado do câncer do colo do útero no Brasil. **Cad. Saúde Pública,** v. 35, n. 6, p. 1-13, 2019. Disponível em: https://www.scielosp.org/pdf/csp/2019.v35n6/e00183118/pt. Acesso em: 25 mai. 2021.

ROCHA, Sílvia Maria Machado da; BAHIA, Marcelo de Oliveira; ROCHA, Carlos Alberto Machado da. Perfil dos exames citopatológicos do colo do útero realizados na Casa da Mulher, Estado do Pará, Brasil. **Rev Pan-Amaz Saude**, Ananindeua, v. 7, n. 3, p. 51-55, 2016. Disponível em: ">http://scielo.iec.gov.br/scielo.php?script=sci_arttext&pid=S2176-62232016000300051&lng=pt&nrm=iso>">http://scielo.iec.gov.br/scielo.php?script=sci_arttext&pid=S2176-62232016000300051&lng=pt&nrm=iso>">http://scielo.iec.gov.br/scielo.php?script=sci_arttext&pid=S2176-62232016000300051&lng=pt&nrm=iso>">http://scielo.iec.gov.br/scielo.php?script=sci_arttext&pid=S2176-62232016000300051&lng=pt&nrm=iso>">http://scielo.iec.gov.br/scielo.php?script=sci_arttext&pid=S2176-62232016000300051&lng=pt&nrm=iso>">http://scielo.iec.gov.br/scielo.php?script=sci_arttext&pid=S2176-62232016000300051&lng=pt&nrm=iso>">http://scielo.iec.gov.br/scielo.php?script=sci_arttext&pid=S2176-62232016000300051&lng=pt&nrm=iso>">http://scielo.iec.gov.br/scielo.php?script=sci_arttext&pid=S2176-62232016000300051&lng=pt&nrm=iso>">http://scielo.iec.gov.br/scielo.php?script=sci_arttext&pid=S2176-62232016000300051&lng=pt&nrm=iso>">http://scielo.iec.gov.br/scielo.php?script=sci_arttext&pid=S2176-62232016000300051&lng=pt&nrm=iso>">http://scielo.iec.gov.br/scielo.php?script=sci_arttext&pid=S2176-62232016000300051&lng=pt&nrm=iso>">http://scielo.iec.gov.br/scielo.php?script=sci_arttext&pid=S2176-62232016000300051&lng=pt&nrm=iso>">http://scielo.iec.gov.br/scielo.php

SANCHES, Taís Tovani et al. Evolução do sistema público de saúde no Brasil frente ao estágio atual da prevenção do câncer de colo uterino em mulheres jovens e adolescentes. **Rev. fac. med.**, Bogotá, v. 65, n. 1, p. 115-120, 2017. Disponível em: http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0120-00112017000100115&lng=en&nrm=iso. Acesso em: 25 maio 2021.

SILVEIRA, Nara Sibério Pinho et al. Conhecimento, atitude e prática sobre o exame colpocitológico e sua relação com a idade feminina. **Rev. Latino-Am. Enfermagem**, v. 24, e2699, 2016. Disponível em: https://www.scielo.br/pdf/rlae/v24/pt_0104-1169-rlae-24-02699.pdf>. Acesso em: 07 mar. 2021.

SOUSA, Graciene Pereira de et al. Aspectos clínicos e epidemiológicos da infecção genital pelo papilomavírus humano em gestantes do município de Imperatriz, estado do Maranhão, Brasil. **Rev. Pan-Amaz. Saude**, Ananindeua, v. 9, n. 3, p. 31-38, 2018. Disponível em: http://scielo.iec.gov.br/scielo.php?script=sci_arttext&pid=S2176-62232018000300004&lng=pt&nrm=iso. Acesso em: 25 maio 2021.

SPECK, Neila Maria de Góis et al. Rastreamento do câncer de colo uterino em jovens e idosas do Parque Indígena do Xingu: avaliação quanto à faixa etária preconizada no Brasil. **Einstein,** v. 13, n. 1, p. 52-7, 2015. Disponível em: https://www.scielo.br/pdf/eins/v13n1/pt_1679-4508-eins-13-1-052.pdf>. Acesso em: 25 maio 2021.

WHO. Word Health Organization. **Cancer Control. Knowledge into ation. Early Detection** (module 3). WHO guide for efective pogrammes. Switzerland: WHO, 2007.

ZAMPIROLO, Julio Araujo; MERLIN Julio Cesar; MENEZES Maria Elizabeth. Prevalência de HPV de baixo e alto risco pela técnica de biologia molecular (Captura Hibrida II®) em Santa Catarina. **Rev. Bras. analises clinicas**. 2007. Disponível em: <. Acesso em: 22 abr. de 2021.