



**CERVICAL CANCER: UNIVERSITY STUDENTS KNOWLEDGE**  
**CÂNCER DO COLO DE ÚTERO: CONHECIMENTO DE ESTUDANTES UNIVERSITÁRIOS**  
**CÁNCER DE ÚTERO: CONOCIMIENTO DE LOS ESTUDIANTES UNIVERSITARIOS**

*Chirlei Aparecida de Lima<sup>1</sup>, Juliana Gimenez Amaral<sup>2</sup>, Patrícia Peres de Oliveira<sup>3</sup>, Walquíria Jesusmara dos Santos<sup>4</sup>, Andrea Bezerra Rodrigues<sup>5</sup>, Maria Isis Freire de Aguiar<sup>6</sup>*

**ABSTRACT**

**Objective:** to investigate the health area student's knowledge and the cervical cancer prevention practice. **Method:** A descriptive and exploratory study, with the quantitative approach, conducted, from February to April 2014, convenience sample with 76 undergraduate students from the nursing, pharmacy, nutrition and physiotherapy course at a municipal private university in Sao Paulo/SP. The data analysis was descriptive. **Results:** 72.36% of the interviewed women affirmed to know the oncotic colpocytology finality and, the majority described it correctly. 81.57% had already passed through the preventive exam sometime, 35.52% considered the human papillomavirus as the main risk factor to the cervical cancer, 13.16% claimed that their familiar had cervical cancer. **Conclusion:** in their majority, the college health area students know and practice the cervical care prevention; however there were divergences in relation to the cervical cancer risk factors. **Descriptors:** Students Health Occupation; Cervix Neoplasm Prevention; Uterine Cervix Neoplasm.

**RESUMO**

**Objetivo:** investigar o conhecimento e a prática de prevenção do câncer do colo do útero de estudantes da área da saúde. **Método:** estudo exploratório-descritivo, com abordagem quantitativa, realizada, de fevereiro de 2014 a abril de 2014, amostra por conveniência com 76 graduandas dos cursos de enfermagem, farmácia, nutrição e fisioterapia de uma universidade privada do município de São Paulo/SP. A análise dos dados foi a descritiva. **Resultados:** 72,36% das entrevistadas afirmaram conhecer a finalidade da colpocitologia oncológica e, a maioria descreveu de forma correta, 81,57% já realizaram o preventivo alguma vez, 35,52% consideraram o papilomavírus humano como o principal fator de risco para o câncer uterino, 13,16% alegam que familiares tiveram câncer uterino. **Conclusão:** em sua maioria, os universitários da área da saúde têm conhecimento e prática de prevenção do câncer uterino, porém houve divergências em relação aos fatores de risco do câncer uterino. **Descritores:** Estudantes de Ciências da Saúde; Prevenção de Câncer de Colo Uterino; Neoplasias do Colo do Útero.

**RESUMEN**

**Objetivo:** investigar el conocimiento y práctica de la prevención de los estudiantes de cáncer de cuello uterino en el área de la salud. **Método:** estudio exploratorio y descriptivo, con abordaje cuantitativo, realizado a partir de febrero de 2014 hasta abril de 2014, con una muestra de 76 estudiantes de graduación de los cursos de enfermería, farmacia, nutrición y fisioterapia de una universidad privada en Sao Paulo/SP. El análisis de datos fue un estudio descriptivo. **Resultados:** 72,36% de las entrevistadas dijo conocer el propósito de la prueba de Papanicolaou y la mayoría describen correctamente, 81,57% ya hizo la prevención alguna vez, 35,52% considera que el virus del papiloma humano como el principal factor de riesgo para el cáncer uterino, 13,16% afirmaron de que la familia tenía cáncer de útero. **Conclusión:** en su mayoría los estudiantes tienen el conocimiento y la práctica de la prevención de cáncer de útero, pero hubo divergencia de los factores de riesgo para el cáncer uterino. **Descritores:** Estudiantes del Área de la Salud; Prevención de Câncer de Cuello Uterino; Neoplasias del Cuello Uterino.

<sup>1</sup>Nurse, Trained in Nursing, Paulista University; Sao Paulo (SP), Brazil. E-mail: [chirleyacs@yahoo.com.br](mailto:chirleyacs@yahoo.com.br); <sup>2</sup>Nurse; PhD in Environmental and Experimental Pathology Professor, Paulista University; Sao Paulo (SP), Brazil. E-mail: [amaral\\_ju@yahoo.com.br](mailto:amaral_ju@yahoo.com.br); <sup>3</sup>Nurse, Education PhD Professor; São Joao del-Rei Federal University/Divinópolis-MG, Brazil. E-mail: [pperesoliveira@gmail.com](mailto:pperesoliveira@gmail.com); <sup>4</sup>Nurse, Nursing Master Professor, São Joao del-Rei Federal University/Divinópolis-MG, Brazil. PhD student, Nursing School, Minas Gerais Federal University; Belo Horizonte (MG), Brazil. E-mail: [waljsantos@hotmail.com](mailto:waljsantos@hotmail.com); <sup>5</sup>Nurse, PhD Nursing Professor; Ceara Federal University. Fortaleza (CE), Brazil. E-mail: [andreabrodrigues@gmail.com](mailto:andreabrodrigues@gmail.com); <sup>6</sup>Nurse, PhD Nursing Professor, Ceara Federal University. Fortaleza (CE), Brazil. E-mail: [isis\\_aguiar@yahoo.com.br](mailto:isis_aguiar@yahoo.com.br)

## INTRODUCTION

The reduction in the incidence and mortality resulting from the cervical cancer all around the world in the last decades didn't occur homogeneously, but especially in developed countries which achieved success in the Implementation of preventive programs of population tracking based in the cervical vaginal cytology.<sup>1-2</sup> Nowadays, 80% of the cervical cancer cases occur in developing country, like Brazil, where is the second kind of cancer more common among the women, losing only for the breast cancer being the fourth women death cause for cancer in our country.<sup>3</sup>

It is about a disease of low progression, including, in pre clinical phase are asymptomatic, with progressive important change, in which the possible detected lesions are conducted through a preventive exam. Progress slowly per years, and if not treated at this beginning, the healing becomes hard. The main symptoms at the initial phase are the vaginal bleeding, the pain and discharge.<sup>4-5</sup>

The Brazilian government has adopted strategies that aim to ensure to the women total access to the actions and qualified services to promote the cervical cancer prevention, access to the precursor lesions tracking, to the early diagnosis and to the appropriate, qualified and timely treatment. Regarding the cervical cancer tracking, the periodic cytopathology exam is still the main adopted strategy. This exam is recommended in Brazil to women between 25 to 64 years old, in each three years, after two annual exams followed with the normal results.<sup>6</sup>

The cervical cancer high incidence and mortality in the country points to the Brazilian programs little effectiveness. The cervical cancer is the main cancer death cause among Young women, it is, till 35 years old, are estimated almost 20.000 new cases in 2014.<sup>4</sup>

The human papillomavirus (HPV), particularly the ones with high oncogenic risk, is the main etiological cervical cancer agent, being detected in 99.7% of the cases. The HPV is transmitted by sex, being a frequent infection. It is estimated that 75% of the women sexually actives were exposed to the HPV in a certain period of their lives.<sup>6</sup> Even that the infection by the HPV is the main condition to the precursor lesion and its progression to the neoplasm, is imperative the other risk factors participation as the partners multiplicity, the early sexual life beginning, the smoking, the others sexually transmitted diseases concomitant presence.<sup>7</sup>

There are vaccines against the HPV, since 2007, but, in Brazil, they were available only in private immunization centers, through payment. Three intramuscular doses are applied with the interval from 2 to 6 months after the first dose. 13-26-year-old women who weren't previously vaccine may also be immunized. Older women who still haven't been the sexual experience may be benefit. Those kinds are responsible for 90% of warts, for 70% of the carcinomas and high deegred pre cancer lesions.<sup>8</sup>

In Brazil, in 2015, the Health Unic System (HUS) launched a national campaign to immunize 11-13-year-old girls against the HPV. The vaccine applied in Brazil is recommended by the World Health Organization, with the efficiency of 98%, protecting the individuals of the disease 6, 11, 16 and 18 kinds.<sup>6</sup>

In this panorama, beyond the health actions and resources and interventions directed to the prevention strategies and cervical cancer control, are essential the health professionals capacity and training in a way that they could receive and attend the customer demand.<sup>9-10</sup>

It is observed that there is a confrontation between the acquired knowledge and its application during the life of academics in the health area, and in this aspect, can be verified that many are the wrong actions in relation to the cervical cancer knowledge and the prevention. It was trough this conjuncture that begun the motivation to this study effectuation.

The nursery and medicine course students during their graduation acquire much knowledge about the caring process. Regarding the oncology cares; their curriculum has contents referring to much kind of cancers, their risk factors, prevention and self exams. However, although they are frequenting a health training institute, acquiring knowledge, the preventive behaviors may be less frequent and the life habits less healthy.<sup>11</sup>

It is essential that the health professionals must have more interest and pay attention to this reality, as soon as the morbidity and mortality by the cervical cancer can be a reflex of loss preventive actions and early detection, being that the high cover of preventive exams is a challenge.

In this context, emerged the question: Which are the health area students' knowledge and practices about the cervical cancer?

The justification for the performance of this study is the high incidence and mortality by the cervical cancer in Brazil, which presents the academic training importance to all the future health professionals. Those high levels show us the necessity to implement national educational actions turned to the cervical cancer prevention and control.

Endorsing the previous affirmation, the scientifically literature show that the studies that evaluate the population knowledge level about public health problems are important, as soon as, they offer contributions to this disease efficient prevention and control strategies.<sup>8,12</sup>

Thus, this study aim to investigate the health area students knowledge and the cervical cancer prevention practice.

## METHOD

An exploratory and descriptive study, with the quantitative approach, conducted in a private university in São Paulo, SP. This university, research scenario, offer four health area courses, those are: Nursery, Pharmacy, Physiotherapy and Nutrition.

Because of the health area students little availability to take part of this research, due to their clinical practices and internships in places out of the research scenario, it was decided to a non probabilistic intentional sample, was adopted as selection criteria, undergraduate women in health area, aging over 18 years old, regularly enrolled in one of the four offered faculties by the researched university, from February to April 2014. 76 students were part of this study.

At the beginning was conducted a pilot study in a region near from the researched area, were performed the students approach procedures and the research instruments tests.

The researchers made contact with the four health areas course coordinator, presenting a research protocol in accordance to the ethical precepts, being requested previous authorization to its performance and were previously approved by the Ethics Research Committee from the Paulista University, by CAAE no 10853312.6.0000.5512, receiving a favorable opinion, according to the protocol no 165.353.

The students were informed about the study objective, about the confidential character and the possibility to quit their participation with any loss. After the acceptance, they signed the Terms of Consent.

Was used a questionnaire, performed by the researchers, applied in the class rooms and namelessly. The questions evolved socio demographic data (Age, marital status, course, if they have kids, if they work and the familiar income), behavior data (first sex age, preservative use, habits related to cervical cancer prevention) and historical familiar, the knowledge about the oncotic colpocytology and the cervical cancer risk factors.

The instrument was applied to four judges to the instrument analysis according to its relevance, clarity and applicability. Those professionals should have expertise in this area and obeyed the following criteria: being a health Professional, having practical experience attending the women with gynecologic neoplasm superior to Five years, have courses and perform teaching and research activities in women health. It was also required to the judges, to show items suggestions and changes considered relevant by them.

Two researchers applied the quests, during about 20 minutes. The respondents were approached before their classes, as well as the morning, afternoon and night shift break of those courses. After the filling explanation, the quests were distributed to each student.

Software EpilInfo version 7 with Double entrance was used to ensure the data basis consistence. Were identified and compared, according to the absolute and relative frequencies, represented through tables.

## RESULTS

To the result presentation were made tables and describing them in text form, considering the students knowledge, trough the data obtained in the researched group study variable.

In table 1, below, are presented the variable study results regarding the health area students socio demographic description, as to age, marital status, if they had kids, if they work and familiar income.

Table 1. Health area Students socio demographic Description regarding age, marital status, course, if they had sons, if they worked and familiar income. Sao Paulo (SP), 2014.

Students socio demographic Description	n=76	%
<b>Age</b>		
18 - 20 years old	20	26.31
21 - 29 years old	38	50.00
30 - 39 years old	14	18.42
40 - 49 years old	3	3.95
> 50 years old	1	1.32
<b>Course</b>		
Nursing	34	44.74
Pharmacy	20	26.31
Physiotherapy	12	15.79
Nutrition	10	13.16
<b>Marital Status</b>		
Single	52	68.41
Casada/ stable union	20	26.31
Separated/Divorced	3	3.95
Widow	1	1.32
<b>Sons</b>		
Yes	22	28.95
No	54	71.05
<b>Work</b>		
Yes	48	63.16
No	28	36.84
<b>Familiar Income</b>		
1 a 3 minimum wages	1	1.32
3.1 a 5 minimum wages	9	11.84
5.1 a 7 minimum wages	38	50.00
Over 7 minimum wages	28	36.84

About the college courses in which the interviewed were enrolled, 34 (44.74%) study nursing, 20 (26.32%) study pharmacy, 12 (15.79%) make the nutrition and 10 (13.16%) study Physiotherapy.

It worth to remember that from those college courses, only the nursing course has in its Schedule, subjects that treat specifically the women health.

According to the socio economical data, 50% of the participants were 21-29-year-old, the average was 23.8 years old. In relation to the marital status, 68.41% (n=52) of the participants were single and 26.31% (n=21) declared themselves in a stable union and,

28.95% (n=22) declared to have kids. Regarding the employment, 63.16% (n=48) worked out of their home, and from those students, 39 reported to have a formal contract and the others worked at the informal market. 86.84% (n=66) of them presented the familiar income over 5.1 minimum wages.

The table 2 presents the results regarding to the behavior questions as the first sex age, preservative use, and the health area students habits related to the cervical cancer.

Table 2. Behavior Questions as the first intercourse age, the preservative use, the habits related to the health area students cervical cancer prevention. Sao Paulo (SP), 2014.

Students Behavior Questions	n=76	%
<b>First intercourse</b>		
Didn't have	14	18.42
12 years old	1	1.32
13 - 15 years old	12	15.79
16 - 18 years old	22	28.95
18 - 20 years old	19	25.00
> 20 years old	8	10.52
<b>Preservative use/ All the intercourse</b>		
Yes	22	28.95
No	40	52.63
Didn't have intercourse	14	18.42
<b>Has ever pass trough the preventive exam</b>		
Yes	62	81.58
No	14	18.42
<b>Vaccinated against the HPV</b>		
Yes	0	0.00
No	76	100.00
<b>Last Pap smear exam</b>		
Has never undergone	14	18.42
< 1 ano	52	68.41
Between 1 e 3 years old	8	10.52
De 3 a 5 years old	1	1.32
> 5 years old	1	1.32
<b>Appointment In a public service</b>		
Yes	12	15.79
No	64	84.21
<b>Information way about the exam</b>		
School/University	42	55.26
Electronical Media	19	25.00
Parents and Brothers	10	13.16
Friends	3	3.95
Others	2	2.63

The present study showed that the age when occurred the first sexual activity varied from 12 to 26 years old, being the average from 17.8 years old. 81.58% (n=62) reported to have an active sexual life; among them, 12 women had sex more than a year and, 40 students reported to practice sex regularly. Although, when questioned about the preservative use, only 28.95% (n=22) of the students mentioned to use them in all the sexual intercourse. When questioned about the reason to not use frequently the preservative, they affirmed to not make a regular use for having a monogamous relationship and use another contraceptive method.

It was observed that a great part of the participants has already made the cytopathology exam at least once in life (81.58%; n=62) the majority made the last exam less than one year considering the data collection period (68.41%;n=52), in a private medical clinic (84.21%; n=64) and, received information about the cytopathology exam

trough the school or university 55.26% (n=42), followed by electronically media (internet) - 25,0% (n=19) of the students. None of the students referred to have been vaccine against the HPV.

The table 3 describes the researched health area students knowledge about the oncotic cytopathology, the cervical cancer risk factors and familiar historical.



Table 3. Knowledge about the oncotic colpocytology and the cervical cancer risk factors and the health area students familiar historical *Conhecimento sobre a colpocitologia oncótica e os fatores de risco do câncer do colo de útero e histórico familiar das estudantes da área de saúde. São Paulo (SP), 2014.*

Student knowledge and Familiar Historical	n=76	%
<b>Familiar Historical</b>		
Yes	10	13.16
No	66	86.84
<b>Preventive exam finality</b>		
<i>Cervical Cancer Tracking</i>		
Yes	55	72.36
No	11	14.48
Don't know	10	13.16
<i>STD diagnosis</i>		
Yes	54	71.05
No	11	14.48
Don't know	11	14.48
<i>Colon wounds and inflammation diagnosis</i>		
Yes	48	63.16
No	22	28.95
Don't know	6	7.89
<i>Others cervical problems</i>		
Yes	20	26.31
No	53	69.73
Don't know	3	3.96
<b>Cervical Cancer risk factors</b>		
<i>STD/HPV</i>		
Yes	27	35.52
No	39	51.32
Don't know	10	13.16
<i>Sexual Habits</i>		
Yes	37	48,68
No	22	28,95
Don't know	17	22,37
<i>Smoking</i>		
Yes	7	9,21
No	28	36,84
Don't know	35	46,05
<i>Oral contraceptives Prolonged use</i>		
Yes	3	3.96
No	20	26.31
Don't know	53	69.73
<i>Genetical factors</i>		
Yes	54	71.05
No	2	2.64
Don't know	20	26.31

As to the knowledge about the oncotic cytopathology, it was observed that 72.36% (n=55) of the students attributed the oncotic cytopathology finality to the cervical cancer tracking. It was verified that, the most part of the health area undergraduate students in the research scenario, know the main objective of the preventive exam, the cervical cancer tracking.

It was noticed that a considerable part of the students (13.16%; n=10) said that their

family members had the uterine cancer, being the mothers and grandmothers of the sick relatives. Among the main risk factors evolved in the cervical cancer etiology, the most frequently cited by the interviewed students were the genetically factors (71.05%; n=54) and sexual habits (48.68%; n=37).

What called our attention, in the table 3, was that the most part of the undergraduate students (51.32%; n=39) didn't consider the HPV as a risk factor to the cervical cancer,

being that, among those students, 20 were nursing students and had already coursed the Women Health subject.

In this perspective, was asked to the students if the man could be an HPV asymptomatic carrier, 72.36% (n=55) of the interviewed women affirmed to not know about the male transmission when the men don't present the disease symptom.

## DISCUSSION

In this study, the average undergraduate students average was 23.8 years old, and the majority, work out of home, therefore, are students and professionals. It is noteworthy that this research's focuses was the students from a private university. Studies show the difference on the profile from the private universities students and the private universities students, and the most part of the private universities' students had to work for them or their families, having gone later to the college.<sup>13</sup>

It was observed that more than a quarter of this study participants declared themselves married/ in a stable relationship and/or to have kids.

It is important to point the complex female situation nowadays with the increasing demand of the enterprises for a higher work qualification, asking to the woman not only a journey of work accomplishment but three, here understood as the conciliation of the professional, familiar and educational activities. It is hard the balance between the economical and domestic activities, that is even more fragile with the children presence. Other factors as the kind of the economical activity developed, the work time and the mayor detachment between house and work, make it harder the responsibilities conciliation, including the health prevention practices as: daily physical exercises, healthy food habits, actions promoting the intercourse and reproductive health effectuation, among them the routine adoption to the gynecological consult and exams.<sup>7, 14-5</sup>

Regarding the familiar income, it was observed a predominance of the familiar income over five minimum wages. Studies evidenced an inversely proportional relation among the socio economical level, the early intercourse risk and sexually transmitted diseases (STD) acquirement.<sup>7, 15</sup> Corroborating with what was found in this study where the age when occurred the first intercourse, varied from 12 to 26 years old, being the average of 17.8 years old. In the Brazilian

context, the average age for the first intercourse is of 15 years old to women.<sup>15</sup>

Those results are all supported by other studies, when those points to a later intercourse beginning, due to the teenagers who has as objective to course the university different life project.<sup>8, 15</sup> Thereby, probably, the entrance goal to a higher education institution, the studies prioritization, the researched patients' triple work journey, the high seizure to the future, have favored that circumstance.

Although it is observed among the university students a later intercourse and the Health Ministry confirmation about the teenagers who has the first intercourse increasing in the last decades, in this stage of their lives, the media stimulates that the early intercourse and is not always enforced the safe intercourse, what is favorable to the HPV contamination and its consequences.<sup>4, 6, 15</sup>

In reference for the undergraduate students sexual activities, it is known that the majority has an active sexual life, however, when they are questioned about the preservative use, more than the half of the students referred to not use the preservative in all the intercourses and, when they are questioned about this aptitude cause, all of them affirmed to have a monogamous relationship and to use another contraceptive method, because of it they dispense the codon protection.

The existence of a trustable relationship between their partners and the oral contraceptive use can result in a lack of care about the preservative use, favoring the living risk rejection. The ISTs prevention, among them the HPV, between partners with a stable relationship can have the opposition of beliefs and moral values as fidelity, the love and the trust, of being protecting their partners from the contamination risk.<sup>16-7</sup>

In this continuity, studies show that teenagers and young adults, mostly, know that the preservative avoid sickness and pregnancy, even though they don't use it, an occurrence that evidence the abyssal failure existence between the knowledge level and the effective condom use.<sup>16</sup>

A research made with the youth showed the preservative use disadvantages, being the main causes, the discomfort and sensibility decrease. It was also confirmed that they use the preservative, only as contraceptive method, not caring for the STDs prevention,<sup>18</sup> as presented in this studied students speech.

Those affirmations lead us to identify the existence deficit between knowledge and

transmitted information, what produces a gap in the educational STD prevention process among the students. Those data are apparent when the most part of the participants affirmed to not consider the HPV as a risk factor to the cervical cancer and, more than three quarters of the students affirmed to not know about the male transmission when the men don't present the disease symptoms.

Results from another study corroborate with those affirmations, as with the one conducted with another nursing students group, where was realized that they recognized HPV as a STD, although more than half of them didn't recognize their signals and symptoms and what they could cause, as the cervical cancer.<sup>16</sup>

The main risk factor to the cervical cancer precursor lesions development if the infection by the HPV. However, this infection, by itself, does not present an enough cause to the uterine cancer, it is imperative this persistence. Beyond the aspects related to the HPV as the kind, the viral charge, is it is a unique or multiplied infection; other factors linked, to genetic, to the sexual behavior seem to influence the mechanisms, still not right, that determine the regression or the infection persistence and also its progression to the precursor lesions or cancer.<sup>6,19</sup>

Even without presenting symptoms, the man shall care with the prophylaxis questions, because they contribute to spread the virus and the women infection, what has a higher potential to develop cervical cancer, as soon as the HPV has a high prevalence at the cervical neoplasm precursor of the cervical cancer in the world.<sup>7</sup>

Another important aspect is that any interview was immunized against HPV, a fact expected because this is available in the public system only since 2015 and, for 11-13-year-old girls. It is recommended the 9 year old girls and boys' immunization.

The immunization before the exposition to the HPV results in a durable protection as for the women and as for the men. This recommendation, however, is not always well received and understood in many countries, as for the parents as for the doctors. The adult vaccination also find barriers, as the high cost to boys, teens older than 14 years old and women till 26 years old, because it is not provide by the health public system; the necessity to be administrated in three injectable doses; beyond the questionings and its efficiency, the need to be vaccine only the men and the impact to the vaccination in the cervical cancer prevention.<sup>20</sup>

Those data show that it is essential a better theme approach to the knowledge consolidation and for educational actions at universities, so that the health area students may play their knowledge professional roles and humanization during the provided assistance. Furthermore, it is believed that the purposes and educational practices shall contemplate the student, considering the experiences and the acquired knowledge, so that the educational practices may respect the differences. It is necessary to see the student as a whole and, with variable life trajectories.

Another way to supplant the current national education situation is the establishment of permanent programs form expecting the action-reflection-action and that they think collectively, the experiential knowledge, the professor life cycle and the university as the training place.

About the cytopathology exam it was observed that most of the participants has ever passed through it sometime in their life, the majority was examined in less than one year considering the data collection period. Similar data were found in the literature.<sup>8</sup> Corroborating with the literature and the data found in this research, study shows that the cytopathology exam is significantly higher in women with their sexual life active, between those that went to the gynecological appointment at the last year and with a high study level.<sup>19</sup> Those findings are associated mainly to the high level of conscience about the preventive exam advantages and benefits, and also a bigger access to information about health.<sup>6</sup> In this study, the women frequented health area superior courses, what can have facilitated the access to information about the exam importance.

It should be noted that the undergraduate students who affirmed to have never undergone through the prevention exam are the same students who has never had sex, those guarantee that don't need to undergo through the exam, a fact however contradictory with the literature.<sup>6,16</sup>

About the place where was conducted the gynecological appointment, mostly of the students said to have gone to a private system. This discover became a relevant, because even that the health area courses have a allocation turned to the Health Unic System consolidation defence, mostly of the students undergone to exams in a private sector. The cultural questions, within the access difficulties, the bad operation, as well as the delays in care and at the exams results delivery, may be one of the explanations to



Lima CA de, Amaral JG, Oliveira PP de et al.

Cervical cancer: university students knowledge...

the majority of the academic students has chosen the private system.

It was also identified that mostly of the women said the main way to obtain information about the oncotic colpocytology was the school/university with professors, followed by the electronic media (internet). Those results are different from the ones found in the literature, maybe by the researched undergraduate student who work and study significant number, in addition to live in a big city where they keep only a few time in their homes within their familiar and friends.

In relation to the knowledge about the oncotic colpocytology, it was verified that more than the half of the graduate students attributed the oncotic colpocytology finality to the cervical cancer tracking, the most frequently cited by the interviewed women were the genetic factors and the sexual habits. A study conducted with graduate students in Bhutan, a country located in the South Asia, also showed that the sexual habits and genetically factors are cited by the majority of the women as a factor evolved in the cervical cancer etiology.<sup>19</sup>

It is emphasized that more than a third of the students affirmed that the smoking is not a risk factor to the cervical neoplasm. Supporting those data, another study showed that only 25% of the interviewed women, women with superior level, knew the relation between smoking and cervical cancer.<sup>19</sup> Studies show that the smoking increase the risk to the cervical cancer development. This risk is proportional to the cigars smoked per day and increase, above all, when the smoking habit begins early.<sup>6-7</sup>

Given the above, there are still discussions about this subject, trying to perfect the cervical cancer care and prevention. To that, the students practice shall be rethought, looking for explore innovations about the theme, it is necessary the exposition strategy transformation trough a increased approach with the student and, the increased adaption at the language and/or adjacency to their living, thereby, the students will show more knowledge about HPV and cervical cancer, aiming to care about their customs with correct information.

It is considered this study limitations were to the uncountable variables that runs through the knowledge analysis and the health area graduate students cervical cancer prevention practices and; the results were collected in a unique private university. Those disadvantages restrict the results generalization to all the health area students.

However, those limitations didn't take this study value, the results stimulate this kind of evaluation stimulation as a bigger group, for a longer time and with the more detailed criteria metering to a possible described data confirmation.

## CONCLUSION

The health area students' cervical cancer knowledge and prevention are not enough to their acting with their future customers and familiars, also, demonstrated dislocation between theory and practice.

Even passing frequently through cytopathology exams, the showed knowledge by the undergraduate students are not enough so that they could acquire prevention and self-care aptitudes, seen that the majority don't adopt the preservative use in their intercourse, much less, consider the HPV infection and others STDs as a risk factor to the cervical cancer.

This study allowed us to foment the discussion about the divergence between the academic women knowledge and the application of that knowledge in their daily life. As future health professionals, the academic women should know and follow correctly the orientations and the recommended procedures. No doubt, the previous detection is essential for the treatment success and the women with cervical cancer survival and the professional can and must make the difference at the population attendance.

Living in the environment called globalized means to make part of a constant intellectual and emotional challenge. The anxiety generated through this challenge, as well as the society constant pressures for capable professionals as for the technique part as intellectually, causes a mismatch between the market need and the education formal process occurred in the superior education institutes.

This study contribution was showing the necessity to rethink the health professionals academic training and the nursing professor and student role in the articulation between the theory and aptitudes regarding to the self-care, health promotion and the health area students' professional practices.

## REFERÊNCIAS

1. Fonseca AJ, Murari RS, Moraes IS, Rocha RF, Ferreira LC. Validity of cervicovaginal cytology in a Brazilian State with high incidence rate of cervical cancer. *Rev Bras Ginecol Obstet* [Internet]. 2014 Aug [cited 2015 Jan 23];36(8):347-52. Available from:

<http://www.scielo.br/pdf/rbgo/v36n8/0100-7203-rbgo-36-08-00347.pdf>

2. Ferlay J, Shin HR, Bray F, Forman D, Mathers C, Parkin DM. Estimates of worldwide burden of cancer in 2008: Globocan 2008. *Int J Cancer* [Internet]. 2010 Dec [cited 2015 Jan 30];127(12):2893-917. Available from: <http://onlinelibrary.wiley.com/doi/10.1002/ijc.25516/epdf>

Brasil. Ministério da Saúde. Instituto Nacional de Câncer José Alencar Gomes da Silva. Coordenação de Prevenção e Vigilância [Internet]. Estimativa 2014: incidência de câncer no Brasil. Rio de Janeiro: INCA [Internet]. 2014 [cited 2015 May 10]. Available from:

<http://www.inca.gov.br/estimativa/2014/estimativa-24042014.pdf>

3. Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde [Internet]. *Vigitel Brasil 2012: vigilância de fatores de risco e proteção para doenças crônicas por inquérito telefônico*. Brasília (DF): Ministério da Saúde [Internet]. 2013 [cited 2014 June 17]. Available from:

[http://www.sbpt.org.br/downloads/arquivos/vigitel\\_2012.pdf](http://www.sbpt.org.br/downloads/arquivos/vigitel_2012.pdf)

4. Borges MF, Dotto LM, Koifman RJ, Cunha Mde A, Muniz PT. Prevalence of uterine cervical cancer testing in Rio Branco, Acre State, Brazil, and factors associated with non-participation in screening. *Cad Saúde Pública* [Internet]. 2012 June [cited 2014 May 11];28(6):1156-66. Available from:

[http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0102-311X2012000600014&lng=en](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102-311X2012000600014&lng=en).

5. Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica [Internet]. *Controle dos Cânceres do Colo do Útero e da Mama*. Brasília (DF):Ministério da Saúde [Internet]. 2013 [cited 2014 June 10]. Available from: [http://bvsmms.saude.gov.br/bvs/publicacoes/controlo\\_canceres\\_colo\\_uterio\\_2013.pdf](http://bvsmms.saude.gov.br/bvs/publicacoes/controlo_canceres_colo_uterio_2013.pdf)

6. Mirzaie-Kashani E, Bouzari M, Talebi A, Arbabzadeh-Zavareh F. Detection of Human Papillomavirus in Chronic Cervicitis, Cervical Adenocarcinoma, Intraepithelial Neoplasia and Squamous Cell Carcinoma. *Jundishapur J Microbiol* [Internet]. 2014 May [cited 2015 Jan 26];7(5):e9930. Available from:

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4138640/>

7. Medeiros R, Ramada D. Knowledge differences between male and female university students about human papillomavirus (HPV) and cervical cancer: Implications for health strategies and vaccination. *Vaccine* [Internet]. 2011 [cited 2015 Jan 28];29:153-60. Available from:

[http://www.hu.ufsc.br/projeto\\_hpv/Knowledge%20differences%20between%20male%20and%20female%20university%20students%20about.pdf](http://www.hu.ufsc.br/projeto_hpv/Knowledge%20differences%20between%20male%20and%20female%20university%20students%20about.pdf)

8. Teles CCGD, Alves ED, Ferrari R. Lesões precursoras para o câncer do colo uterino e seus fatores de risco: estudo reflexivo. *J Nurs UFPE on line* [Internet]. 2013 [cited 2014 Feb 12];7(spe):5733-41. Available from: <http://www.revista.ufpe.br/revistaenfermagem>

[/index.php/revista/article/viewArticle/3259](http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/viewArticle/3259)

9. Moraes MN, Jerônimo CGF. Analysis of the results of cytopathological tests of uterine cervix. *J Nurs UFPE on line* [Internet]. 2015 Apr [cited 2015 May 10];9(Suppl 3):7510-5. Available from:

[http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/6561/pdf\\_7622](http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/6561/pdf_7622)

10. Pires CGS, Azevedo SQR, Mussi FC. Fatores de risco cardiovascular em estudantes de enfermagem: elaboração de procedimentos de avaliação. *Rev baiana enferm* [Internet]. 2014 [cited 2015 May 11];28(3):294-302. Available from:

<http://www.portalseer.ufba.br/index.php/enfermagem/article/view/10483/8991>

11. Murata IMH, Gabrielloni MC; Schirmer J. Cobertura do Papanicolaou em Mulheres de 25 a 59 anos de Maringá - PR, Brasil. *Revista Brasileira de Cancerologia* [Internet]. 2012 [cited 2013 Oct 20];58(3):409-15. Available from:

[http://www.inca.gov.br/rbc/n\\_58/v03/pdf/10\\_artigo\\_cobertura\\_papanicolaou\\_mulheres\\_25\\_59\\_anos\\_maringa\\_pr\\_brasil.pdf](http://www.inca.gov.br/rbc/n_58/v03/pdf/10_artigo_cobertura_papanicolaou_mulheres_25_59_anos_maringa_pr_brasil.pdf).

12. Alves EF. Características demográficas e ocupacionais do estudante-trabalhador de enfermagem e o risco de acidentes de trabalho. *Trabalho e Educação* [Internet]. 2011 Sept-Dec [cited 2015 May 18];20(3):47-59. Available from:

<http://www.portal.fae.ufmg.br/seer/index.php/trabedu/article/viewFile/688/777>

13. Santos M, Macêdo A, Leite M. Percepção de Usuárias de uma Unidade de Saúde da Família Acerca da Prevenção do Câncer do Colo do Útero. *Revista de APS: América do Norte* [Internet] 2010 July-Sep [cited 2014 Oct 18];13(3):310-19. Available from:

<http://www.aps.ufjf.br/index.php/aps/article/view/672/342>.

14. Pimentel AV, Panobianco MS, Almeida AM, Oliveira JSB. Percepção da vulnerabilidade entre mulheres com diagnóstico avançado do câncer do colo do útero. *Texto context enferm* [Internet]. 2011 June [cited 2014 Nov 08];20(2):255-62. Available from:

<http://www.scielo.br/pdf/tce/v20n2/a06v20n2.pdf>

15. Panobianco MS, Lima ADF, Oliveira ISB, Gozzo TO. Knowledge concerning HPV among adolescent undergraduate nursing students. *Texto context enferm* [Internet]. 2013 Jan-Mar [cited 2015 Jan 08];21(1):201-04. Available from:

<http://www.scielo.br/pdf/tce/v22n1/24.pdf>

16. Cirino FMSB, Nichiata LYI, Borges ALV. Knowledge, attitude and practice in the prevention of cervical cancer and HPV in adolescents. *Esc Anna Nery* [Internet]. 2010 Jan-Mar [cited 2015 Jan 28];14(1):126-34. Available from:

[http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S1414-81452010000100019&lng=en](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1414-81452010000100019&lng=en).

17. Silva IT, Griep RH, Rotenberg L. Social support and cervical and breast cancer screening practices among nurses. *Rev Latino Am Enfermagem* [Internet]. 2009 May [cited 2015 May 24];17(4):514-21. Available from:

<http://www.scielo.br/pdf/rlae/v17n4/13.pdf>

18. Dhendup T, Tshering P. Cervical cancer knowledge and screening behaviors among female university graduates of year 2012 attending national graduate orientation program, Bhutan. *BMC Womens Health* [Internet]. 2014 Mar [cited 2014 Oct 30];14(1):44. Available from:

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3975232/>

19. Darus CJ, Mueller JJ. Development and impact of human papillomavirus vaccines. *Clin Obstet Gynecol*. 2013 Mar [cited 2015 Oct 29];56(1):10-6. Available from:

<http://dx.doi.org/10.1097/GRF.0b013e31827af770>.

Submission: 2015/06/22

Accepted: 2016/07/06

Publishing: 2016/08/01

### Corresponding Address

Patrícia Peres de Oliveira  
Universidade Federal de São João del-Rei/UFSJ  
Rua Sebastião Gonçalves Coelho, 400  
Bairro Chanadour  
CEP 35501-296 – Divinópolis (MG), Brasil

English/Portuguese

J Nurs UFPE on line., Recife, 10(8):2993-3003, Aug., 2016