
STUDENT NURSES' KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING THE PAPANICOLAOU EXAMINATION

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ABSTRACT: cervical cancer is a public health problem which can be changed through the adoption of the Papanicolaou examination. This research was undertaken with nursing students at a public university in Picos, Piauí, Brazil. This is an evaluative study of the Knowledge, Attitudes and Practices type, whose objective was to analyze the knowledge, attitude and practice of student nurses regarding the Papanicolaou examination. Data collection took place between August and September 2010, involving 143 student nurses. Regarding knowledge of the examination, only 40 (28%) were classified as having an adequate knowledge. In relation to attitude and practice, the percentages were 106 (74.1%) and 75 (52.4%) respectively. It is concluded that even though the study population is from a course in the area of health, their knowledge of the examination needs to be revised with more health promotion activities held in the university environment.

DESCRIPTORS: Knowledges, attitudes and practices in health. Nursing. Neoplasms.

CONHECIMENTO, ATITUDE E PRÁTICA DE ACADÊMICAS DE ENFERMAGEM SOBRE O EXAME DE PAPANICOLAOU

RESUMO: O câncer cérvico-uterino se constitui um problema de saúde pública, fator este que poderia ser modificado com a adoção do exame Papanicolaou. Realizou-se esta pesquisa junto a acadêmicas de enfermagem de uma universidade pública de Picos, Piauí. Estudo avaliativo do tipo Inquérito Conhecimento, Atitude e Prática, cujo objetivo foi analisar o conhecimento, a atitude e a prática das acadêmicas de enfermagem sobre o exame de Papanicolaou. A coleta de dados ocorreu de agosto a outubro de 2010, perfazendo 143 acadêmicas de enfermagem. Quanto ao conhecimento sobre o exame, apenas 40 (28%) foram classificadas com um conhecimento adequado. Já em relação à atitude e à prática, o percentual foi 106 (74,1%) e 75 (52,4%) respectivamente. Conclui que mesmo se tratando de uma população do curso da área da saúde, o conhecimento acerca do exame necessita ser revisto, com mais atividades de promoção da saúde dentro do ambiente universitário.

DESCRIPTORIOS: Conhecimentos, atitudes e prática em saúde. Enfermagem. Neoplasias do colo do útero

CONOCIMIENTO, ACTITUDES Y PRÁCTICAS DE ACADÉMICAS DE ENFERMERÍA SOBRE EL EXAMEN DE PAPANICOLAOU

RESUMEN: El cáncer de cuello uterino constituye un problema de salud pública, un factor que eventualmente podría ser modificado con la aprobación del examen de Papanicolaou. Llevamos a cabo esta investigación con estudiantes de enfermería de una universidad pública en la ciudad Picos, Piauí. Se trata de un estudio de evaluación del Conocimientos, Actitudes y Prácticas, cuyo objetivo principal fue analizar los conocimientos, actitudes y prácticas de la estudiante de enfermería acerca del examen de Papanicolaou. La recolección de datos ocurrió entre agosto y octubre de 2010, mediante la aplicación de un formulario estructurado a 143 estudiantes de enfermería. Respecto al conocimiento del examen sólo 40 (28%) fueron clasificados con el conocimiento apropiado. Con la actitud y la práctica el porcentaje de adecuación fue de 106 (74,1%) y 75 (52,4%) respectivamente. Algunos factores de riesgo para la salud sexual y reproductiva también fueron identificados, lo que lleva a la conclusión de que, incluso cuando se trata de una población que pertenece a un curso de salud, el conocimiento acerca de la prueba debe ser revisado, con las actividades de promoción de la salud más dentro del ámbito universitario que se centra en los jóvenes con el fin de minimizar el daño a largo plazo.

DESCRIPTORIOS: Conocimientos, actitudes y práctica en salud. Enfermería. Neoplasias del cuello uterino.

INTRODUCTION

Cervical and uterine cancer is a serious public health problem, with high rates of morbi-mortality, principally in developing countries, affecting women in their reproductive prime.¹ This situation can be mitigated with health education for this population, helping it to acquire preventative habits.

In Brazil, it is estimated that cervical cancer is the third-most frequent cancer in the female population, representing 10% of all malignant tumors, only exceeded by non-melanomous skin cancer and breast cancer, and classified as the fourth-most common cause of death by cancer in women. For 2012, 17,540 new cases were expected, with a risk estimated at 17 cases per 100,000 women.¹ Piauí, for example, has a rate estimated at 21.98 cases per 100,000 women, which is above the national average. With the exception of non-melanomous skin cancer, this tumor has the greatest potential for prevention and cure when diagnosed early.²

This neoplasm's development is related to infection with Human Papillomavirus (HPV), this being one of the main risk factors. The presence of this virus is found in 95% of cases, although there are innumerable types of virus with low potential for the development of cancer or its precursor lesions. Early coitarche, multiplicity of sexual partners, smoking, low socio-economic or educational level, depressed immunological status, multiparity and prolonged use of oral contraceptives are configured as catalyzing factors for the development of cervical cancer.³

In Brazil, the principal strategy used for the early detection of this neoplasm is the Papanicolaou examination, or colposcycological examination. Considered cheap and practical, this examination consists of the collection of material from the uterine cervix, from where samples are taken of the ectocervix and the endocervix. The best strategy for reducing the incidence and mortality of cervical cancer is organized tracking.²⁻³

In spite of its proven importance for women's health and the efforts made to transform gynecological examinations into educational experiences, it is observed that many women seem not to consider this a routine procedure. An unawareness of the benefits of this practice may frequently be observed among women, which leads them to put off visiting the health service for this purpose. This fact is more worrying when it concerns health professionals – or students who should have this

knowledge at an appropriate level, and improve it constantly, in the face of the changes which occur daily, providing their patients-clients with greater safety in diagnosis and treatment.

In relation to the above, this study aimed to analyze the knowledge, attitudes and practices of student nurses at a public university in the city of Picos in the State of Piauí, in relation to undertaking this gynecological examination. It was decided to undertake the present study based on the fact that in the future this population will work in the health services, performing strategic roles guiding the female population concerning the importance of carrying out this examination periodically.

METHOD

This is an evaluative study of the Knowledge, Attitudes and Practice Questionnaire (KAP) type, cross-sectional and with a quantitative approach. KAP questionnaires belong to a category of evaluative studies called formative assessment, that is, beyond simply obtaining data on a specified populational group, they identify possible paths for a future, more efficacious, intervention.⁴

The study was undertaken with students from the nursing course at a public university in the city of Picos, in the State of Piauí. The university has 357 students fully enrolled on the course, of whom 249 (69.7%) are female.

Sample calculations were carried out for finite populations, and the sample was stratified for all the semesters. From the 1st semester, 23 students were selected, from the 2nd 22, from the 3rd 20, from the 4th 18, from the 5th 20, from the 6th 18, from the 7th 19 and from the 8th 12. The students were chosen randomly, from a table with random numbers, and were numbered according to their number in the class register.

The inclusion criteria established were: to be aged over 18 and to be present on the day of data collection. In this way, the sample was made up of 152 women, based on a population size (n) of 249 students. However, five of the students chosen were not available at the time of data collection and four declined to participate in the research, reducing the number to 143.

Structured forms were used for data collection, with questions prepared on the issue addressed. The data was collected between September and October 2010 in the classroom, after the teacher's due consent. The filled-out questionnaires were collected immediately and

placed in envelopes, ensuring the confidentiality of identities.

It was decided to apply the KAP questionnaire, which evaluates in a dynamic way the knowledge which the population has on a given topic, its attitude to the issue addressed, and its practices considering the approach.

The KAP model used in a separate study⁵ was adapted for the present research, and the following definitions were defined for the adequacy or not of the variables observed:

a) Knowledge

Adequate: the woman had already heard of the examination, knew that its purpose was to detect cervical cancer, and in addition to this could confidently state two care actions necessary before having the examination.

Inadequate: when the woman, in spite of having heard of the exam, did not know that its purpose was to detect cervical cancer, in addition to not being able to state any care actions necessary prior to having the examination. In addition to this it also included women who had never heard of the examination.

b) Attitude

Adequate: when the woman responded concomitantly that the examination was necessary for the early detection of cervical cancer (CC) and that it is a routine examination.

Inadequate: when the woman responded that undertaking the examination was necessary for prevention of STDs, that undertaking it was not very necessary or was even un-necessary.

c) Practice

Adequate: when the woman had had the examination within the last three years and had arranged an appointment for discussion of the results.

Inadequate: when the woman had had the examination in the last three years, but had not returned for discussion of the results, when the examination had occurred more than three years previously, even if she had arranged an appointment for discussion of the results, when in addition to the examination having occurred more than three years previously she had not returned for evaluation of the results; or when the woman had never had the examination.

The data found was worked on with Microsoft Excel and analyzed using the statistical program SPSS (Statistical Package for Social Sciences) version 17.0. Absolute and relative frequencies

were presented in illustrative tables.

The present study is in accordance with Resolution 196/96 of the National Health Council, which emphasizes the ethicality of research involving human beings. The research project was approved by the Federal University of Piauí's Research Ethics Committee, under protocol n. 0178.0.045.000-10. It should be noted that the students' authorization for participation in the research was formalized through signature of the Terms of Free and Informed Consent, after they had been informed of the study's objectives.

RESULTS AND DISCUSSION

In this approach, factors were investigated which could influence the knowledge, attitude and practice regarding the Papanicolaou examination among student nurses. The socio-demographic data is presented in table 1.

Table 1 - Distribution of student nurses' personal and socio-economic data. Picos-Piauí, Sep-Oct 2010

| Personal and socio-economic data (n=143) | n | % |
|---|----------|----------|
| Age range (in years) | | |
| Up to 19 | 48 | 33.6 |
| 20 – 22 | 69 | 48.3 |
| 23 – 25 | 15 | 10.5 |
| Over 25 | 11 | 7.6 |
| Point in course | | |
| Up to 1 year | 42 | 29.3 |
| Over 1 year – 2 years | 39 | 27.3 |
| Over 2 years – 3 years | 32 | 22.4 |
| Over 3 years – 4 years | 30 | 21.0 |
| Mother's level of schooling | | |
| Junior High incomplete | 20 | 14.0 |
| Junior High complete | 13 | 9.1 |
| Senior High incomplete | 10 | 7.0 |
| Senior High complete | 36 | 25.2 |
| Higher education incomplete | 10 | 7.0 |
| Higher education complete | 54 | 37.8 |
| Family income* | | |
| Between ½ and 1 minimum salary | 10 | 5.6 |
| Between 1 and 3 minimum salaries | 37 | 16.1 |
| Over 3 minimum salaries | 55 | 78.3 |
| Marital status | | |
| Single | 132 | 92.3 |
| Married | 10 | 7.0 |
| Stable relationship | 1 | 0.7 |

* Minimum monthly salary at time of writing = R\$ 510.00.

As shown in table 1, the students' age range varied between adolescents of 18 or 19 years, to adult women aged over 25 years old, with the most frequent age range being 20 to 22 years, with 69 persons (48.3%), there being an average age of 21.

The majority of the students researched were in the initial years of the course, such that 42 (29.3%) had not yet finished their first year at university and 39 (27.3%) had not yet finished their second. The research was proportional in the choice of its participants, such that the initial semesters generally had a higher number of students compared to the 'veteran' ones. One study has emphasized that young people seek the help of the health services more, a fact which favors health promotion and the prevention of illness.⁶

Regarding the mother's level of schooling, 54 (37.8%) stated that their mothers had completed higher education. This factor increases the probability of this population entering higher education. One can perceive in the everyday that parents with more years of formal education inspire their children to seek knowledge and to be as informed as possible.

Regarding monthly family income, a little over half of the participants - 55 (78.3%) - responded to the question stating that they had an income over three minimum salaries. The average monthly income was R\$ 2,075.00, varying from R\$ 450.00 to R\$ 8,000.00.

In relation to their marital status, the predominance of single women is predictable, as the group is made up of young women, who due to academic activities and a desire for professional advancement often postpone marriage.

Table 2 - Adequacy of knowledge and principal source of information on the Papanicolaou examination of student nurses from Picos, Piauí, Sep-Oct 2010

| Knowledge (n=143) | n | % |
|--|----------|----------|
| Adequate | 40 | 28 |
| Source of information (n=97) | | |
| Health professional | 16 | 11.2 |
| Family and friends | 8 | 5.6 |
| University, teachers, books | 46 | 32.2 |
| Internet, television, media | 17 | 11.9 |
| Association of two variables among those mentioned | 10 | 6.9 |

In this approach, the student nurses' knowledge about the examination for the early detection

of uterine neoplasms was investigated, along with their attitudes and practices regarding this examination.

As shown, only 40 (28%) students had adequate knowledge. This fact may be attributed, among other factors, to the majority of them being from the early periods of the course - more than half of them, that is, 81 (56.6%) had not completed the second year. When asked about their reasons for having the examination, 88 (61.5%) indicated reasons which were not consistent with the examination's purpose. It stands out that when asked to give two pre-examination care actions, 54 (25.8%) could not give any care action, and 18 (12.5%) cited only one.

Studies have shown that students with more years of study have better knowledge about cervical cancer in comparison with students beginning their courses. This aspect is attributed to the former experiencing practices relevant to disciplines administered later in their courses.⁷

In the research in question, the sources of information prevalent among the students consisted of university, teachers and books, there being 46 (32.2%) responses. One study evaluating the preventive behaviors of nursing students concerning gynecological cancers showed that, of the 64 students interviewed, 58 (90%) made positive points about the course increasing their knowledge, stating that it is characterized by providing scientific bases which have the effect of increasing information and knowledge.⁸

Seeking to assess the adequacy of the knowledge which the student nurses had on the preventive examination for uterine neoplasms, the students were asked to indicate the reason for undertaking the said exam, as well as two care actions which it is necessary to take prior to the examination's realization. Tables 3 and 4 show, respectively, the main reasons for having the examination, along with the care actions which should be taken prior to the Papanicolaou examination, as referred to by the research subjects.

148 reasons were raised by the students as responsible for undertaking the Papanicolaou examination. It was observed that the majority of the responses, 60 (40.5%), stated that the reason for the examination is the prevention and early detection of cervical cancer, thus showing that they had adequate knowledge about the real purpose of the examination. A significant proportion, however, 28 (18.9%), indicated the detection of STD/AIDS as the reason. One may also observe that 19 un-

dergraduates (12.8%) state that they do not know what this procedure is for.

Table 3 - Reasons for having the Papanicolaou examination, in the perception of student nurses. Picos-Piauí, Sep-Oct 2010

| Reasons for having the examination (n=148)* | n | % |
|---|----|------|
| Prevention and early detection of CC | 60 | 40.5 |
| Detection of STD/AIDS | 28 | 18.9 |
| Analysis of the cervix | 11 | 7.4 |
| Prevention of illnesses | 11 | 7.4 |
| Don't know | 19 | 12.8 |
| Routine | 10 | 6.7 |
| Presence of infection | 5 | 3.3 |
| Inflammation | 2 | 1.3 |
| Menstrual pain | 1 | 0.6 |
| After first sexual relation | 1 | 0.6 |

* Responses to more than one item.

Another study showed that of 250 women researched, a considerable percentage – 22% – related the Papanicolaou examination to the prevention and early detection of STD/AIDS, and, of these, 30 (12%), did not know what the purpose of the examination was. It may be observed, therefore, that an important portion of the population still retains a rather unclear understanding of this examination's real objectives, making it appropriate for the health teams to adopt educational practices which are more consistent with realities, the better to improve the population's knowledge.⁹

Various authors emphasize the importance of health professionals always being alert to the reasons which lead women not to undertake the preventive examination, so as to be able to better guide their intervention actions, increasing compliance with, and coverage of, the same.¹⁰

When questioned about two care actions to be taken prior to having the examination, a total of 209 responses were obtained, of which 54 (25.8%) could not state what to do. Sexual abstinence for a period of 24 hours was mentioned by 36 (17.2%) and cleaning of the genital area by 34 (16.2%), configuring the two care actions most mentioned by the participants. Among the responses obtained, it stands out that 18 (12.5%) mentioned only one care action.

This data is similar to that of another study carried out, in which, of the 250 women evaluated, 80 (32.6%) cited only one care action, and among the care actions cited most, sexual abstinence,

with 167 (66.7%) responses, and the undertaking of intimate cleaning, with 75 (30.1%) responses, stood out.⁹

No one care action is more important than the other. What is important is that the women know there to be various care actions which must be adopted prior to undertaking the procedure, have been informed what these care actions are, and know that for this examination to be efficacious, the care actions must be incorporated. Table 4 shows the adequacy of the attitude and the principal objective for undertaking the above-mentioned examination stated by the student nurses.

Table 4 - Adequacy of the attitude and principal objective for undertaking the examination, by the student nurses. Picos-Piauí, Sep-Oct 2010

| Attitude (n=143) | n | % |
|---|-----|------|
| Adequate | 106 | 74.1 |
| Objectives | | |
| It is always necessary for the early detection of uterine neoplasms | 90 | 62.9 |
| It is always necessary, as it prevents the appearance of STD | 7 | 4.9 |
| It is always necessary, as it is a routine examination, but I only do it to know if everything is okay. | 15 | 10.5 |
| It's always necessary, but I only do it to know if everything is okay. | 9 | 6.3 |
| I don't have an opinion on this | 13 | 9.1 |
| Others | 9 | 6.3 |

As shown in the present work, 106 (74.1%) students were considered to have an adequate attitude regarding the examination. According to the methodology used, the students who had adequate attitudes were those who said that the examination was necessary for prevention and early diagnosis of uterine neoplasms, as well as those students who answered that it is a necessary examination and that they did it to know if everything was okay, and that it was a routine examination.

It may be observed that many women, in spite of not having adequate knowledge, have appropriate attitudes in relation to this examination, given that it is included as an action which aims for the prevention of morbidities. Authors note that the women seek more information regarding their state of health in an attempt to take care of themselves, seeking to prevent more serious illnesses such as cancer.¹¹

The present study shows that in spite of most knowledge being considered inadequate, the future nurses have attitudes which are consistent with what is envisioned.

In relation to the principal objective of having the examination, of the 143 students, 90 (62.9%) alluded to it being a necessary procedure for the early detection of uterine neoplasms. Some, 15 (10.5%), stated that it is necessary because it is a routine examination, but that they do it only to know if everything is okay. A considerable number of students, 13 (9.1%), claimed not to have any opinions about the procedure.

Studies show that, when questioned about the necessity of carrying out the examination, a lot of women always relate it to the prevention and early detection of cervical cancer. One study assessed the knowledge, attitudes and practices relating to the Papanicolaou examination among Argentinean women and showed that the preventive character and the early diagnosis of cancer were the two main reasons leading this public to have the examination.¹²

Table 5 shows the percentage of the students whose practices were considered adequate, and the reasons which they cited for not having the examination.

Table 5 - Adequacy of practice, and reasons for not having the Papanicolaou examination, according to the student nurses. Picos-Piauí, Sep-Oct 2010

| Practice (n=143) | n | % |
|---|----------|----------|
| Adequate | 75 | 52.4 |
| Reasons for not having examination(n=54) | | |
| Lack of concern | 12 | 22.2 |
| Virginity | 19 | 35.1 |
| Embarrassment | 4 | 7.4 |
| Not having been requested to by the doctor | 5 | 9.2 |
| Not doing gynecological check-ups | 4 | 7.4 |
| Not presenting signs or symptoms, hence no perceived need | 3 | 5.5 |
| Others | 7 | 13.2 |

According to table 5, it may be seen that little over half of the students – 75 (52.4%) – had their practices considered as adequate. Studies show that the best adaptation of the practice occurs when the population's knowledge about the issue addressed is based on correct information, leading

to an accurate understanding of its real purpose. One study showed that of 64 students researched, 54 (84.4%) had adequate practices, a value related to the percentage of adequacy of knowledge which the research subjects had.⁸

It should be noted that 135 (94.4%) students stated that they had already heard of the Papanicolaou examination, in spite of the majority, 103 (72%), having their knowledge considered inadequate. One can see that these young people are not totally uninformed.

Another study indicates that the best rates of adequacy in practice of the Papanicolaou examination were observed among women with greater schooling, who consulted their doctor more frequently, who had an active sex life and who used some method of contraception.¹³ As this is a procedure in which the people receiving the test are intimately exposed, it may be seen that there is still resistance from a considerable portion of the women who receive the examination.

Health professionals must be duly trained to undertake this examination, developing and carrying out individualized assistance with satisfactory interaction. The therapeutic relationship leads to the construction of a link of confidence between the parties involved.¹⁴

Women give a great many reasons for not having the examination. A total of 54 responses was received to this question, in which the majority of the students, 19 (35.1%), alleged virginity as the reason. Lack of concern was another factor much addressed by the students, 12 (22.2%). A variety of motives were allocated to the category 'others', such as: lack of confidence in the health professional, 1(0.5%), lack of time, 2(3.7%), not knowing about the examination, 1 (0.5%), not seeing the need for the examination, 1 (0.5%); two students (3.7%) stated that they could not explain the reasons which led them not to have the examination.

The new Brazilian guidelines for tracking Cervical Cancer (CC) recommend that cytopathology collections should be started at 25 years of age, for women who have already started sexual activity. The examinations should continue until the women are aged 64 and should be interrupted when, after this age, the women have had at least two consecutive negative examinations in the last five years.³ This shows that the young women who indicated virginity as a reason have adequate practice, even when their responses in relation to the undertaking of the examination were negative. The

women aged below 25 and who had not initiated sexual activities were considered to have adequate practices, even when they did not provide a reason for not undertaking the examination, perhaps because of unawareness of the information.

Lack of concern was a reason referred to by 12 (22.2%) students. This question calls attention by the fact that this population is demonstrating negligence with their health. In one study developed and carried out with lecturers from the Federal University of Sergipe, in which the predominant level of education was Master's or Doctorate, of the 87 interviewees, five (5.7%) stated that they had not had the examination, alleging lack of concern, lack of time, good health and discomfort.¹⁵

Embarrassment is a feeling much mentioned by the women who do not have the Papanicolaou examination, and may be exacerbated when the health professional who performs the examination is male.¹⁶

Some students – four (7.4%) – reported not receiving gynecological check-ups. In spite of these young women supposedly not having initiated sexual activities, the attendance of gynecological check-ups is a habit which all women should acquire after the menarche, as it is a preventive practice against certain harms which can appear in this new stage of life.

As a limitation of this study, one can note the fact that only undergraduate student nurses were approached, thus indicating the need for further, wider, research projects concerning the issue in question, encompassing students and even the teaching staff from a variety of university courses.

CONCLUSIONS

Based on the objectives proposed at the beginning of the research, the results led us to assert that the student nurses, in spite of having heard about the examination for the early detection of uterine neoplasms, have inadequate knowledge about its real purpose, as well as how one should proceed prior to receiving the examination.

It stands out that the majority of the students did not have adequate knowledge, and that the percentage of adequacy of the attitude and practice showed that this public had only basic notions of the topic addressed.

One can, therefore, see the need for the development of studies proposing to develop and carry out interventions in this context, increasing this

public's knowledge, such that they may increasingly seek actions directed at the prevention of cervical cancer, and the promotion of sexual and reproductive health.

These students, as future health professionals, in addition to the concern with self-care, have a role of supreme importance regarding the improvement of their knowledge so as to provide quality care in women's health, thus lowering the currently-existing rates of morbi-mortality due to cervical cancer.

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