



Repercussions of the COVID-19 pandemic on cervical cancer screening: nurses' perception

Repercussões da pandemia de COVID-19 no exame preventivo de câncer de colo uterino: percepção de enfermeiros

Repercusiones de la pandemia de COVID-19 en el tamizaje del cáncer de cuello uterino: percepción de los enfermeros

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ABSTRACT

Objective: to understand the perception of primary care nurses about the repercussions of the pandemic on the performance of cervical cytopathological exam. **Method:** qualitative, descriptive study, with data analyzed by Content Analysis. Twelve nurses working in primary care in Foz do Iguaçu, PR, between February and March of 2022, were interviewed. **Results:** three thematic categories emerged that discussed the damages of the pandemic for cervical cancer screening; need to reorganize the service, highlighting the low adherence; and lack of strategies for the return of health practices. **Conclusion and implications for practice:** in the pandemic, there was a suspension of preventive collection and after the critical period, the fear of contamination by women, lack of inputs and human resources made it difficult to resumption of service. It's relevant for practice to develop actions and strategies that encourage the performance of the exam, in order to reduce morbidity and mortality from this neoplasm.

Keywords: Cervix uteri; COVID-19; Pandemic; Papanicolaou test; Prevention.

RESUMO

Objetivo: compreender a percepção de enfermeiros da atenção primária sobre as repercussões da pandemia na realização do exame citopatológico do colo-uterino. **Método:** estudo qualitativo, descritivo, com dados analisados pela Análise de Conteúdo. Foram entrevistados 12 enfermeiros, atuantes na atenção primária de Foz do Iguaçu, PR, entre fevereiro e março de 2022. **Resultados:** emergiram três categorias temáticas que discorreram sobre os prejuízos da pandemia para o rastreamento do câncer de colo-uterino; necessidade de reorganização do serviço, destacando a baixa adesão; e falta de estratégias para o retorno das práticas em saúde. **Conclusão e implicações para a prática:** na pandemia houve a suspensão da coleta de preventivo e após o período crítico, o medo da contaminação pelas mulheres, falta de insumos e recursos humanos dificultaram a retomada do serviço. Torna-se relevante para a prática, desenvolver ações e estratégias que incentivem a realização do exame, para assim reduzir a morbimortalidade por essa neoplasia.

Palavras-chave: Colo do útero; COVID-19; Pandemia; Prevenção; Teste de Papanicolaou.

RESUMEN

Objetivo: comprender la percepción de los enfermeros de atención primaria sobre las repercusiones de la pandemia en la realización de exámen citopatológico cervical. **Método:** estudio cualitativo, descriptivo, con datos analizados por Análisis de Contenido. Fueron entrevistadas doce enfermeras que actúan en la atención primaria en Foz do Iguaçu, PR, entre febrero y marzo de 2022. **Resultados:** surgieron tres categorías temáticas que discutieron los daños de la pandemia para el tamizaje del cáncer de cuello uterino; necesidad de reorganizar el servicio, destacando la baja adherencia; y falta de estrategias para el retorno de las prácticas de salud. **Conclusión e implicaciones para la práctica:** en la pandemia hubo una suspensión de la recolección preventiva y después del período crítico, el miedo a la contaminación por parte de las mujeres, la falta de insumos y recursos humanos dificultó la reanudación del servicio. Se vuelve relevante para la práctica desarrollar acciones y estrategias que favorezcan la realización del examen, con el fin de disminuir la morbimortalidad por esta neoplasia.

Palabras clave: COVID-19; Cuello del útero; Pandemia; Prevención; Prueba de

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INTRODUCTION

Cancer is considered a public health problem worldwide. In the year 2030, it is estimated that approximately 21 million new cases and 13 million deaths from cancer will occur worldwide, due to population growth and aging.¹ Cervical cancer (CC) is the third most common type of cancer among women in Brazil and, for the year 2022, 16,710 new cases of CC are expected, with an estimated risk of 15.38 cases per year. 100 thousand women. In 2020 alone, there were 6,627 deaths from this uterine neoplasm, representing a mortality rate of 4.60/100,000 women.²

In recent decades, there has been a worldwide decline in the incidence and mortality from CC, although some countries in Central Europe, Eastern Europe and Asia have registered an increase among young women. This fact has been observed since the end of the 1990s, and has been attributed to the increase in human papillomavirus (HPV) infection.³

Infection by this virus is the main risk factor for the development of this uterine neoplasm, present in approximately 99% of cases. There are also other factors that can influence the infection regression or evolution, such as immunosuppression, smoking, parity, sexually transmitted co-infections and behavioral factors, which can be considered preventable, and therefore are targets of primary and secondary prevention strategies and actions.⁴

With the objective of reducing morbidity and mortality rates due to CC, Brazil adopted as a rule the World Health Organization (WHO) recommendation, which proposes the performance of Pap smear test, offered to women or anyone with a cervix in the age group of 25 to 64 years and who have already maintained sexual activity. It is recommended, for screening in Brazil, repeating Pap smear test every three years, after two consecutive normal exams with an interval of one year.⁵

In addition to performing the exam, primary prevention is related to the reduction of contagion by the HPV virus, including several health actions, such as a campaign to vaccinate adolescents against HPV, guidance on the use of condoms during sexual intercourse and educational actions for the entire population on risk factors.⁴

Primary Health Care (PHC) is the ordering system and executor of health promotion, prevention and early diagnosis actions.³ Therefore, for the development of actions for CC prevention, it is necessary that PHC health professionals are aware of the main risk factors and that they develop care practices that guarantee health promotion, early diagnosis and timely and effective treatment.⁶

In 2019, WHO received notification, on December 31, of cases of pneumonia in the city of Wuhan, China, suspected to be caused by a new strain of coronavirus, SARS-CoV-2.⁷ Only in March 2020, the WHO changed the status of infection to a pandemic caused by the new coronavirus, causing a large part of the health services to be restructured, considering the emergency situation of the COVID-19 pandemic, a disease caused by SARS-CoV-2.⁸

The COVID-19 pandemic affected the population in the social, economic and emotional aspects and disorganized the health care system. Due to this high demand for care arising from COVID-19, most health resources, including the redirection of health professionals, was intended to respond to the pandemic, leaving a gap in promotion and prevention services, which became, a priori, invisible to health services.⁹

The Pap smear test for CC detection was one of the exams that were no longer performed in PHC services. However, it is known that stopping care for chronic conditions will bring not only a momentary consequence, but will manifest disastrously in the long term, as it involves the worsening of chronic conditions and, certainly, many preventable deaths in the future.⁹

From the above, the following research question arose: how did the COVID-19 pandemic impact on appointments related to CC cytopathological examination in nurses' perception? Thus, this study aimed to understand primary care nurses' perception about the repercussions of the pandemic in carrying out uterine cervix cytopathological examination.

METHOD

A descriptive study, with a qualitative approach, was carried out through field research. The research was carried out in the municipality of Foz do Iguaçu, located in the state of Paraná, belonging to the 9th Health Region. The municipality has 29 PHC units, distributed in five health regions.

The study included 12 nurses working in PHC services in Foz do Iguaçu with a minimum work time of six months. Professionals who were on vacation, on sick leave or on sick leave during the data collection period were included. In this study, there was no exclusion of participants.

The choice of participants was random, however, we tried to elect at least two units from each of the five health regions of the municipality. Data collection took place between February and March 2022.

Interviews were conducted, recorded in audio for later transcription. The interviews were carried out in the PHC unit where nurses work, who were invited to participate in the research, the objectives being explained and the signature of the Informed Consent Form (ICF) being collected, then the interview was scheduled. The interviews were conducted by a fifth-year nursing student at a public teaching university, who was trained by the researcher in charge, who has expertise in gynecological nursing. A pilot interview was carried out to adjust the script and train the academic, which was included in the present investigation.

A guiding, flexible script was used to discuss the research question.¹⁰ Therefore, the interview began with the following trigger question: what are the repercussions of the COVID-19 pandemic for the performance of CC screening?

Data were analyzed based on the content analysis proposed by Bardin, which establishes the method in processing stages, as follows: a) analysis organization; b) coding; c) categorization; d) treatment of results, inference and interpretation of results.¹¹

The research was approved by the Research Ethics Committee of the *Universidade Estadual do Oeste do Paraná*, with approval under Opinion 5,244,134, meeting the norms of Resolution 466/2012 of the Brazilian National Health Council. To maintain participant anonymity, they were identified as participating nurse (PN), with the sequential number of interviews.

RESULTS

Twelve nurses with a mean age of 36.5 years, most of them married or in a stable union, municipal public servants, working in PHC units and with a graduate degree (specialization or master's degree), participated in this study.

The interviews of participants translated the repercussions of the COVID-19 pandemic on CC screening, with regard to the work process organization, expressed by three categories of analysis.

COVID-19 pandemic: harm to cervical cancer screening

The COVID-19 pandemic led to losses in several health promotion and prevention programs, which include CC screening. The losses were identified by service suspension in the critical period of the pandemic.

At the height of the pandemic, there was no screening collection, we had a memorandum saying that we could not do any elective procedures, we were only seeing pregnant women and children [...] (PN02).

At the height of the pandemic, all appointments were cancelled, we did not collect preventive measures for a long time (PN07).

[...] at the height of the pandemic, we suspended the screening collection schedule. It was suspended for about a year almost [...] (PN08).

The high demand for care for patients with respiratory symptoms led to the need for some PHC units to become a reference in the care of individuals with suspected COVID-19. As a result, all daily promotion and prevention activities have been suspended.

[...] after it started doing rapid tests, this unit became a reference only for treating patients with COVID-19 (PN01).

[...] that year too, it was just COVID-19, respiratory symptomatic (PN02).

We started to structure ourselves to care for respiratory symptoms (PN05).

Even in the critical phase of the pandemic, there was a need to maintain some appointments related to cytopathological examinations of women who already had cellular alterations as well as medical requests during appointments.

Situations, for example, of urgency or patient came with leukorrhea, or there were some situations that the doctor identified as urgent, we did it (PN05).

[...] we collected the collection of changes. So, screening was suspended, but the changes that we needed to follow up were done (PN10).

The women who came with a medical request, we collected them here (PN12).

Although for a suspended period, when returning with CC screening, still at a critical moment of the pandemic, there was low demand for its performance, triggered by women's fear of contracting the disease, diverging from nurses' expectations.

[...] there are many women who were afraid to leave the house, to come to the health center, to catch COVID-19. So, routine exams ended up being sidelined during this period [...] (PN02).

[...] search has been reduced, because the staff is still afraid to seek the service, so the collection has reduced a lot [...]. We had the intensification of pink October in 2020, but demand was very low, it was not as expected (PN08).

[...] they knew it was the time of COVID, so people are afraid to come to the unit (PN11).

(Re)organization of preventive care amid the COVID-19 pandemic

New demand activities in general in PHC units, in order to promote care for respiratory symptomatic patients with the inclusion of rapid test collections for COVID-19 detection, were imposed on health teams, but without preparation, adequacy or improvement in the care flow structuring to carry out such activity.

[...] there was not much interest on the part of the city hall in this matter of organizing flow and employees as well. We had very few employees, for example, we had to test for COVID-19 and care for symptomatic patients. We had to finish it later, just changing the apron and cap, washing our hands and caring for patients who were not symptomatic, you see, and this was questioned. They also didn't have adequate rooms available for us to separate the flow was very direct [...] (PN01).

In fact, there was no such preparation, the pandemic came very quickly [...] (PN06).

Nothing specific has been done. [...] (PN10).

After the resumption of elective activities in the units to carry out the necessary procedures for the population, the service and the health teams (re)organized themselves to provide care.

Cervical cancer screening

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The use of personal protective equipment (PPE) was instituted and a new screening was adapted for entry into the unit.

We always use the recommended equipment, mask, glasses, so the patient has to be wearing a mask and the professional wearing a mask. If you have flu symptoms, it's not for me to collect screening [...] (PN02).

PPE [...] we also did not allow them to enter the office, or inside the unit without wearing a mask, using gel alcohol. These were the strategies (PN04).

[...] there were some periods when we had scales from community health workers at the door of the unit. These workers barred people, in the sense that if there were people with symptoms to seek care, as it took a long time for the COVID-19 center [...] (PN07).

To mitigate the risk of contamination by COVID-19, the health teams readjusted the appointment schedule in the unit, in a fragmented and individual way, without any general guidance to maintain inter-unit integration.

Spacing between one collection and another, of time, so as not to spend too much time inside the unit, that was it (PN03).

We do schedule every 45 minutes each, but in practice this does not happen [...] (PN11).

The schedule had to be well spaced, they asked us to have an hour between one collection and another, so the schedule was well spaced, few collections per period. (PN12).

After the period of suspension of elective activities and health promotion and disease prevention programs, with the reduction of contamination rates by COVID-19, activities in general were resumed, and CC screening returned in an expanded form in PHC units.

[...] on my preventive days I always play here, which is my busiest, most tumultuous day, because as I told you, no matter how much I make eight vacancies available, whenever another one is missing, I leave the availability to fit in (PN04).

My schedule is already full, the whole of March already (PN08).

Yes, they are already looking, both screening and mammography, which had also stopped (PN12).

The women in the scenario under study sought the CC screening service, but the demand was greater than in the period prior to the pandemic, as there was an accumulation of services related to general care and it was necessary to develop strategies to serve the population.

[...] what we could do to normalize the service was to offer a greater number of vacancies within our schedules in order to be able to reach a greater number of collections (PN04).

[...] I remember opening two days a week, on a Monday and Thursday afternoon, to meet the demand, because as it was a long time without doing it, it became visible as soon as the demand increased, that the women were left with a lag there (PN07).

Absence of strategies for the resumption of practices for cervical cancer screening

Although there was a spontaneous search by women to undergo the Pap smear test, nurses described that the number of women aged to undergo CC screening is much higher. In order to update the agenda of these exams, there is certainly a need to introduce strategies, such as simple actions such as the active search to reinclude these women in preventive programs, a practice not exercised by the research participants, given the lack of teams and the resolution of new PHC unit issues.

At the moment, at their request, here at the moment I have a colleague with a certificate, I will attend to my team, if I cannot, I will ask to make a waiting list for the other team and I will assist as I can, because there are many (PN02).

At first, here in my unit I am unable to carry out an active search, I have two community workers just for a population of about 18,000 people (PN08).

At the moment we haven't thought about active search, exactly because of what I told you, I'm alone, I have to solve other things in the unit [...] (PN11).

We were offering as they came, looking for unity, but there was no active search to see who failed to do so [...] (PN12).

New problems were listed by participants for activity resumption execution and organization, such as the inefficiency of the logistical system, lack of inputs and lack of protocols.

[...] when we resumed the schedule that was in the middle of last year, the middle of last year here, you know, all the schedules were working. At the end of the year, there was a problem sending material from the ninth, this is what was passed on to us, sending material from the health regional, the service was suspended again [...] (PN06).

[...] in this period from December 2021 to February 2022, I had some open appointments, of women who had already been rescheduled due to lack of inputs (PN07).

I'm alone, I have to solve other things in the unit [...] a very busy unit, maybe if it were a smaller unit, it would be able to do this active search, we didn't elaborate any protocol or planning for this search (PN11).

In addition to the structuring problem for carrying out the tests, health education was found to be flawed, making it difficult for most women to understand the interval between the tests and the purpose of their performance, since many women sought care just from their complaints.

Sometimes they collected the screening eight months ago, they want to collect it again because they have discharge, then they even explain that screening is not for the cause of discharge, it is for cancer [...] (PN03).

I see here, many are like this, ah, it's the campaign month, for example, they did the screening in January, then in October they come back and want to do it again. Ah, but it's campaign month, don't you have to do it again? [...] (PN08).

[...] I perceive a greater search when there are complaints and that is not the objective. The real objective is to track whether there are cells that will predispose to cancer [...] (PN 04).

What I still see is that many people don't understand what the exam is for, they say, "I know I have to take the exam every year". Some know it's because of cervical cancer, but many link it to the discharge symptom (PN10).

To improve this scenario of women's lack of knowledge about the need for CC screening, participants reported that the best strategy should be anchored in welcoming practices.

In the nursing consultation, the nurse and I try to advise on this, both the screening and the mammogram [...]. We have radio and television advertisements that arrive in October, but they speak in general, there is no way to speak specifically and then this woman comes, so we try to guide her in the nursing consultation [...] (PN05).

[...] I believe that what works is the reception during the nursing consultation; the lecture, that doesn't work, call, we've tried here, we with four teams have already tried to call the population; the lecture, that doesn't work, they have a different level of education, different understanding so the word-of-mouth, the nursing consultation works, that works [...] (PN06).

[...] you already have an open preventive agenda so that this demand does not have a repressed demand, that can reach a number of women inside the unit to collect it [...]. It is logical that if you are able to concentrate and give lectures on education, both in schools and in the unit itself, this will certainly help more to raise awareness (PN09).

DISCUSSION

The research presented aspects related to the losses for CC screening during the COVID-19 pandemic, evidencing the

suspension of attendance of activities in the municipality of Foz do Iguaçu and addressing the difficulties and impasses for health promotion in nurses' perspective.

The greatest loss mentioned by participants was the suspension of activities of general demand in the PHC unit, including test collection for CC screening, in which there was a significant drop in the number of collections carried out during the pandemic. A study also showed the suspension of care and appointments in general, with the aim of reducing the number of people in health units, such as care in the Hiperdia Program (for the population with systemic arterial hypertension), cytopathological examination, physiotherapy and health mental; in the latter, only revenue renewal was maintained.¹² Throughout the country, in 2020, there was a 44.6% reduction in the performance of cytopathological tests, when compared to the previous year.¹³

Taking into account the high incidence of individuals affected by SARS-CoV-2, numerous measures have been imposed to prevent the virus from spreading at the municipal and state level. It was necessary to reorganize the entire work process of the health system to deal with patients with respiratory symptoms, transforming some PHC units into outpatient care for these patients, jeopardizing other health promotion and disease prevention services.

Even after returning to activities, this investigation found low compliance specifically with CC screening, a frequent reality throughout the country. A study carried out in 2019, i.e., before the pandemic, showed that low compliance can bring together several factors, including the social and psychosocial environment of women. It was highlighted that the sociodemographic condition can interfere with compliance with the exam, because more educated women with better economic levels are more likely to agree to undergo the test. The factor referring to the history of cancer in the family refers to a favorable factor, since it improves knowledge about the neoplasm and its risk factors.¹⁴

A survey regarding other chronic conditions, carried out through the Komodo health care map, evaluated test volumes reported in several municipalities before and during the pandemic related to the prevention and monitoring of chronic conditions and selected cancer markers.^{9,15} Cervical cytology, cholesterol, glycosylated hemoglobin, leukemia, ovarian and breast cancer tests showed a sharp drop during the pandemic period, with the worst results occurring in states where the pandemic was more aggressive.¹⁵ These findings may have implications for future morbidity and mortality, as tests not performed or postponed may generate a wave of negative consequences for these diseases in the post-pandemic period.⁹

The pandemic triggered the fear of contracting the COVID-19 disease in women, diverging from the expectations of health professionals when scheduling restarted, even after the critical period of the pandemic, becoming an impasse for carrying out screening exams. Despite the high rates of contamination by COVID-19, emergency calls and/or medical requests, as well as the collection of cytopathological tests with altered results, were maintained.

The same occurred for patients undergoing cancer treatment, where there were no unanimous protocols for the management of cancer patients during the COVID-19 pandemic. However, the target of the proposed measures was to balance the actions in order to avoid contagion with the virus, in addition to establishing strategies for offering the best treatment aimed at the therapeutic process against neoplasms with the available resources, taking into account the uniqueness of each case and the mental health of those involved, whether patients, professionals or family members.¹⁶

The pandemic affected all areas of human activities, requiring isolation and social distancing, perpetuating a repressed demand for tests and, consequently, late diagnoses. After the resumption of general activities in the health units, there will certainly be a need to adapt the routine to carry out some procedures, as the pandemic is not over yet, although there is currently a low incidence of cases.

For the resumption of activities in PHC, it was necessary to make adaptations for CC screening, in addition to the prevention measures recommended by the WHO regarding the use of masks and alcohol gel. Study participants reported adapting their schedules with greater spacing between one service and another, more precisely sanitizing the room for the following procedure, in addition to not attending patients with respiratory symptoms.

A technical note prepared by the Ministry of Health (MoH), together with the Brazilian National Cancer Institute, brought important measures for cancer screening resumption, recommending actions to ensure compliance to current guidelines, especially in relation to the target population recommendations and periodicity. It is noteworthy that carrying out breast and CC screening outside of these recommendations brings more risks than benefits, especially in times of pandemic.¹⁷

With regard to the demand for CC screening, women have still sought the service timidly, but the general demand, including the other actions of a health unit, is greater than the period prior to the pandemic, due to the accumulation of services, requiring the development of strategies to serve the entire population, such as increasing the number of days and vacancies allocated for this procedure. In addition to the impasses imposed by the pandemic, other problems were listed by the participants, such as the lack of inputs and human resources, a fact evidenced by three participants, which may lead to further delays in CC diagnoses.

This inefficiency in the logistical system in health services culminated in difficulties in carrying out an active search and hindered the opening of more days for test collection. This search, together with the team of community health workers (CHW), is relevant for bringing women back to the health unit for examination, as reported in this research.

According to the Pan American Health Organization (PAHO), cases of cancer are expected to increase by 60% by 2040. For this reason, they recommend expanding cancer treatment and prevention services to reduce new cases of the disease. They also emphasize that, in addition to the restrictions and closures of screening programs, there was a diversion of resources to manage the COVID-19 pandemic, increasing existing inequalities in cancer treatment.¹⁸

Another point listed in the study was the understanding by the women about what the exam is, the frequency and the objective. Their understanding, according to participants, is related to complaints, showing lack of knowledge about examination frequency. Women believe that the collection is mandatory in October, as it is the most representative period for breast cancer and CC prevention, even though it is the second collection carried out in the year.

Another issue addressed was age, as many women outside the age range still seek to undergo CC screening. The guidelines for CC screening, according to the Ministry of Health, advocate the beginning of collection at 25 years of age. Tests should continue until age 64 and be interrupted when, after that age, women have at least two consecutive negative tests in the last five years. For women over 64 years of age who have never had a cytopathological test, two tests should be performed with an interval of one to three years. If both are negative, these women may be exempt from further testing.⁵

When nurses were approached about how to improve this scenario of lack of knowledge on the part of women about CC screening, they reported that the best strategy must be anchored in welcoming practices during the nursing consultation. A survey carried out in Ceará described women's perception regarding embracement, which positively signaled its importance for health promotion, in addition to affirming the relevance of the guidelines offered during nursing consultations for CC prevention, characterizing an individual educational approach.¹⁹

Considering the factors listed in this research, which showed the delay and overcrowding in the agendas of PHC units for all health programs, it is clear that there is an urgent need for new strategies to improve health care. In this space, it is highlighted that active search actions are important both for screening and for diagnostic elucidation and initiation of treatment. The main objective of the active search is to ensure the complete and effective completion of treatment.²⁰ For treatment to be successful, the Family Health Strategy team's commitment in the development of activities must be counted on, in addition to responsibility for community's health.²¹ Nurses, with the help of a health team, will be able to be closer to the population and manage their practices to prevent, diagnose and treat CC in a timely and efficient way.

In addition to the active search, other strategies can be used to identify and clarify doubts regarding the test, such as carrying out educational activities in the community, home visits to women whose test is overdue, partnerships with companies and institutions that facilitate the access of its employees to gynecological appointments, dissemination in the media, mainly radio and television, as they are easily accessible to low-income people, among other strategies that promote compliance and early detection of CC precursor lesions.²²

It is fundamental to point out the relevance of nursing consultation to guide the population in general. The more comprehensive the prevention program and the more active the nurse, the better the results of their actions.²³

Another highlight refers to the appearance of carcinogenic variants of HPV that can progress to CC. Infections caused by HPV are recognized as the major cause of Sexually Transmitted Infections worldwide, directly affecting the sexually active young population, in which it is estimated that about 70 to 80% of this population will be infected with HPV at some point in their lives, with the probability of transmission between 50% and 80% after unprotected sexual intercourse.²⁴ Among the actions to prevent HPV, the main strategy is vaccination.²⁵

Although the effectiveness of vaccination for CC screening has been proven, its compliance in the national territory is considered low. In 2017, vaccination for the male public aged 12 to 13 years old was 43% and, among the female population aged 9 to 17 years old, it was 52%.²⁶ With regard to immunization, nurses will be able to act in health awareness and education actions, contributing to the control of this disease, which may impact family life and cancer morbidity and mortality indicators in the country.²⁷

CONCLUSIONS AND IMPLICATIONS FOR PRACTICE

The results of this study showed that, in the critical period of the COVID-19 pandemic, there was a suspension of CC screening service. Soon after this period, service resumption presented weaknesses, considering the fear of contamination by women when seeking care, added to the impasses faced by health teams in PHC services, such as the lack of inputs and human resources to carry out the work.

Health professionals were overloaded, given the high demand in the unit, and this prevented the active search to reorganize the CC screening program. Likewise, the readjustment of services through the implementation of rapid testing for COVID-19 in PHC units and the lack of knowledge of women about cancer screening guidelines also made it difficult to resume collections.

It is important for nurses to keep up-to-date and aware of the difficulties reported by women in pandemic periods, given the need to welcome, raise awareness and carry out health education to rescue women for this health segment.

Moreover, more effective actions and strategies will be important to facilitate compliance and encourage early cytopathological examination, to reduce the prevalence of this neoplasm, even with high death rates worldwide.

As a limitation, the fact that the study only had the participation of nurses stands out, with the involvement of other professionals and managers being essential to expand the discussion on the subject. In this way, it is understood that this investigation contributes to the encouragement and effectiveness of health actions, especially in a vulnerable context such as that experienced in the pandemic scenario so that nurses can act effectively as coordinator of health promotion practices.

AUTHORS' CONTRIBUTIONS

Study design. Luana Cristina Kaufmann. Andrea Ferreira Ouchi França.

Data collection or production. Luana Cristina Kaufmann.

Data analysis. Luana Cristina Kaufmann. Andrea Ferreira Ouchi França. Adriana Zilly. Helder Ferreira. Rosane Meire Munhak da Silva.

Interpretation of results. Luana Cristina Kaufmann. Andrea Ferreira Ouchi França. Adriana Zilly. Helder Ferreira. Rosane Meire Munhak da Silva.

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REFERENCES

- Alves MO, Magalhães SCM, Coelho BA. A regionalização da saúde e a assistência aos usuários com câncer de mama. *Saude Soc.* 2017 Jan/Mar;26(1):141-54. <http://dx.doi.org/10.1590/s0104-12902017160663>.
- Instituto Nacional de Câncer. Conceito e magnitude [Internet]. Rio de Janeiro: Instituto Nacional do Câncer; 2021 [cited 2022 Jun 24]. Available from: <https://www.inca.gov.br/controlado-cancer-do-colo-do-uterio/conceito-e-magnitude>
- Ferreira MC, Vale DB, Barros MBA. Incidência e mortalidade por câncer de mama e do colo do útero em um município brasileiro. *Rev Saude Publica.* 2021 Oct;55:67. <http://dx.doi.org/10.11606/s1518-8787.2021055003085>. PMID:34730748.
- Silva Jr JA, Bezerra LLO, Freitas JLGS, Santos SMP, Queiroga RPF, Silva TRF. O conhecimento dos discentes de enfermagem acerca do câncer de colo do útero. *Rev Enferm UFSM.* 2021 Jan;11:e7. <http://dx.doi.org/10.5902/2179769241938>.
- Marques MMDS, Pedrozo RESB. Factors associated with the refusal of Pap smears by women attending basic health units in Brazil. *Res Soc Dev.* 2021 Dec;10(16):e15101623055. <http://dx.doi.org/10.33448/rsd-v10i16.23055>.
- Silva LR, Almeida CAPL, Sá GGM, Moura LKB, Araújo ETH. Educação em saúde como estratégia de prevenção do câncer do colo do útero: revisão integrativa. *Rev Prev Infec Saúde.* 2017;3(4):35-45. <http://dx.doi.org/10.26694/repis.v3i4.6708>.
- Souza DO. A pandemia de covid-19 para além das Ciências da Saúde: reflexões sobre sua determinação social. *Cien Saude Colet.* 2020 Apr;25(suppl 1):2469-77. <http://dx.doi.org/10.1590/1413-81232020256.1.11532020>.
- Moreira RS. COVID-19: unidades de terapia intensiva, ventiladores mecânicos e perfis latentes de mortalidade associados à letalidade no Brasil. *Cad Saude Publica.* 2020 May;36(5):e00080020. <http://dx.doi.org/10.1590/0102-311x00080020>. PMID:32428072.

9. Mendes EV. O lado oculto de uma pandemia: a terceira onda da covid-19 ou o paciente invisível [Internet]. Brasília: CONASS; 2020 [cited 2022 Jun 25]. Available from: <https://www.conass.org.br/wp-content/uploads/2020/12/Terceira-Onda.pdf>
10. Santos AF, Jesus GG, Battisti IK. Entrevista semiestruturada: considerações sobre esse instrumento na produção de dados em pesquisas com abordagem qualitativa. *Rev Salão Conhecimento Unijuí* [Internet]. 2021 Oct; [cited 2022 Jun 25];7(7):1-5. Available from: <https://publicacoeseventos.unijuí.edu.br/index.php/salaconhecimento/article/view/20805>
11. Lima FO, Alonço M, Ritter OMS. Content analysis as a methodology in Qualis-CAPES A1 journals in Science Education. *Res Soc Dev*. 2021 Mar;10(3):e43110313378. <http://dx.doi.org/10.33448/rsd-v10i3.13378>.
12. Lopes GVB, Costa KFL. Impactos e desdobramentos da pandemia da COVID-19 na atenção básica: um relato de experiência. *Saúde Redes*. 2020 Dec;6(suppl 2):7-16. <http://dx.doi.org/10.18310/2446-4813.2020v6n2Supp145-154>.
13. Ribeiro CM, Correa FM, Migowski A. Efeitos de curto prazo da pandemia de COVID-19 na realização de procedimentos de rastreamento, investigação diagnóstica e tratamento do câncer no Brasil: estudo descritivo, 2019-2020. *Epidemiol Serv Saude*. 2022 Mar;31(1):e2021405. <http://dx.doi.org/10.1590/s1679-49742022000100010>. PMID:35262614.
14. Pereira JD, Lemos MS. Preditores motivacionais de adesão à prevenção do câncer do colo do útero em estudantes universitárias. *Estud Psicol*. 2019;36:e170073. <http://dx.doi.org/10.1590/1982-0275201936e170073>.
15. Komodo Health. Routine chronic disease screenings and oncology biomarker tests plummet during COVID-19 [Internet]. Nova York: Komodo Health; 2020 [cited 2022 Jun 25]. Available from: <https://www.komodohealth.com/insights/2020/04/routine-chronic-disease-screenings-and-oncology-biomarker-tests-plummet-during-covid-19>
16. Nascimento CC, Silva PHS, Cirilo SSV, Silva FBF. Desafios e recomendações à atenção oncológica durante a pandemia da Covid-19. *Rev Bras Cancerol*. 2020 Sep;66(Tema atual):e-1241. <http://dx.doi.org/10.32635/2176-9745.RBC.2020v66nTemaAtual.1241>.
17. Ministério da Saúde (BR). Instituto Nacional do Câncer. Nota Técnica – DIDEPRE/CONPREV/INCA – rastreamento de câncer durante a pandemia de COVID-19 [Internet]. Brasília: Instituto Nacional do Câncer; 2020 [cited 2022 Jun 25]. Available from: <https://www.inca.gov.br/sites/ufu.sti.inca.local/files/media/document/nota-tecnica-rastreamento-covid-didepre-09-jul-2020.pdf>
18. Organização Pan-Americana da Saúde. OPAS pede ampliação do acesso ao tratamento de câncer pode salvar vidas [Internet]. Brasília: Organização Pan-Americana da Saúde; 2022 [cited 2022 Jun 25]. Available from: <https://www.paho.org/pt/noticias/4-2-2022-opas-pede-ampliacao-do-acesso-ao-tratamento-do-cancer-para-salvar-vidas>
19. Rocha MGL, Linard AG, Santos LVF, Sousa LB. Embracement in gynecological nursing consultation: women's perceptions of the family health strategy. *Rev Rene*. 2018 Aug;19:e3341. <http://dx.doi.org/10.15253/2175-6783.2018193341>.
20. Ferreira MRL, Santos AA, Órfão NH. O vínculo no tratamento da tuberculose na atenção primária à saúde: uma revisão integrativa. *Rev Bras Promoç Saúde*. 2019 Dec;32:9540.
21. Araújo DS, Palheta MS, Souza JC, Passos Jr IC, Silva FB, Araújo VSC et al. O papel do enfermeiro na busca ativa de pacientes em abandono do tratamento de tuberculose: uma revisão integrativa da literatura. *Rev Eletrônica Acervo Saúde*. 2020 Sep;59(59):e4263. <http://dx.doi.org/10.25248/reas.e4263.2020>.
22. Maciel NS, Luzia FJM, Ferreira DS, Ferreira LCC, Mendonça VM, Oliveira AWN et al. Busca ativa para aumento da adesão ao exame Papanicolaou. *Rev Enferm UFPE Online*. 2021;15(1):e245678. <http://dx.doi.org/10.5205/1981-8963.2021.245678>.
23. Costa FKM, Weigert SP, Burci L, Nascimento KF. Os desafios do enfermeiro perante a prevenção do câncer do colo do útero. *Rev Gestão Saúde* [Internet]. 2017; [cited 2022 Jun 13];17(1):55-62. Available from: <http://www.herrero.com.br/files/revista/filef125a619c4b18a99efe6fdf22874fdd6.pdf>
24. Imamura S, Fagundes TR. Nursing protagonism in vaccination and evaluation of vaccine coverage against human virus papilloma in municipalities of the 18th regional health of Paraná. *Res Soc Dev*. 2021 Jun;10(7):e7610716410. <http://dx.doi.org/10.33448/rsd-v10i7.16410>.
25. Moura LL, Codeço CT, Luz PM. Cobertura da vacina papilomavírus humano (HPV) no Brasil: heterogeneidade espacial e entre coortes etárias. *Rev Bras Epidemiol*. 2021 Dec;24:e210001. <http://dx.doi.org/10.1590/1980-549720210001>. PMID:33331411.
26. Ministério da Saúde (BR). Informe técnico da ampliação da oferta das vacinas papilomavírus humano 6, 11, 16 e 18 (recombinante) – vacina HPV quadrivalente e meningocócica C (conjugada) [Internet]. Brasília: Ministério da Saúde; 2018 [cited 2022 Jul 27]. Available from: https://www.cosemssc.org.br/wp-content/uploads/2018/03/INFORME-T%C3%89CNICO-HPV_MENINGITE_Final.pdf
27. Meireles LA, Cunha FV, Vador RMF, Meneses TMF. Atuação do enfermeiro na adesão da imunização do Papilomavírus humano em adolescentes. *Braz J Health Rev*. 2020 Nov/Dec;3(6):17413-27. <http://dx.doi.org/10.34119/bjhrv3n6-159>.