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## Screening of cervical cancer among women with physical disabilities: evaluation of health services

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### ABSTRACT

The objective of this study was to analyze how cervical cancer screening is performed in women with physical disabilities in primary health care services. This is a descriptive, cross-sectional study with a quantitative approach, carried out in 13 cities in the State of Rio Grande do Sul. The sample consisted of 53 nurses working in services that perform screening for cervical cancer, responsible for collecting samples for cytopathological examination. For data collection, an approved questionnaire was used, consisting of four domains and 34 items that assess human resources, physical resources, organization of service and assistance, and health education. Cronbach's alpha coefficient was calculated to measure the internal consistency of the questionnaire items. As for the questionnaire scores, the lowest average was obtained in domain 4 (health education) (35.2%) and the highest average in domain 1 (human resources) (90.1%). The internal consistency of the questionnaire was considered satisfactory (Cronbach's alpha equal to 0.841). Items related to the continuing education of health professionals and access to structures and instruments of the health services need to be improved for the inclusion and comprehensiveness of women's health care in the context of cervical cancer screening.

**Keywords:** Women's Health; Disabled people; Primary Health Care.

## RESUMO

O objetivo deste estudo foi analisar como se dá o rastreamento do câncer do colo do útero nas mulheres com deficiência física nos serviços de saúde da atenção básica. Trata-se de um estudo descritivo, transversal, de abordagem quantitativa, realizado em 13 municípios do estado do Rio Grande do Sul. A amostra foi composta por 53 enfermeiros atuantes em serviços que oferecem rastreamento do câncer do colo do útero, responsáveis pela coleta para exame citopatológico. Para coleta de dados utilizou-se um questionário previamente validado, composto por quatro domínios e 34 itens que avaliam os recursos humanos, recursos físicos, organização do serviço e da assistência e a educação em saúde. O coeficiente alfa de Cronbach foi calculado para medir a consistência interna dos itens do questionário. Quanto à pontuação dos escores do questionário, obteve-se menor média no domínio 4 (educação em saúde) (35,2%) e maior média no domínio 1 (recursos humanos) (90,1%). A consistência interna do questionário foi considerada satisfatória (alfa de Cronbach igual a 0,841). Quesitos relacionados à educação permanente em saúde dos profissionais e a acessibilidade em estruturas internas e instrumentais dos serviços precisam ser melhorados para a inclusão e integralidade do cuidado à saúde mulher no contexto do rastreamento do câncer do colo do útero.

**Keywords:** Saúde da Mulher; Pessoas com Deficiência; Atenção Primária à Saúde.

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## INTRODUCTION

Cervical cancer (CC), the third most prevalent type among Brazilian women, has an estimated 16,710 new cases in 2020 in Brazil (INCA, 2021a). Worldwide, the estimate for 2020 has reached 604,127 new cases, being the fourth most prevalent type of cancer in women (IARC, 2020). It is caused by persistent infections caused by oncogenic types of Human Papillomavirus (HPV), which cause cellular changes in the epithelium of the cervix (INCA, 2021b).

Controlling its incidence can be reached through prevention and early detection. For prevention, actions such as vaccination are intended to prevent cancer precursor lesions. Early detection, on the other hand, aims to identify these lesions before they evolve into neoplasia, by tracking them (KESSLER, 2017).

In Brazil, screening is considered a primary health care technology and must be performed through the Papanicolaou or cytopathological examination, for women aged between 25 and 64 years old. This exam, offered in the public health system, involves trained professionals, such as nurses and doctors (BRASIL, 2016a; INCA 2021a).

Despite the existence of programs and guidelines that guide health professionals regarding preventive actions and early detection of CC (BRASIL, 2013; BRASIL,

2016a), there are gaps regarding information about the care of women who need differentiated care and welcoming of their specificities, such as, women with physical disabilities, as they also have the right to undergo preventive exams, both for the cervix and breasts (BRASIL, 2016b).

The importance of the coverage of this population in the context is verified by analyzing the results of the 2010 Census, where 23.9% of the Brazilian population consists of people who have some type of disability, with a physical disability being the most prevalent type (18.6%). Women with physical disabilities make 8.5% of this total (BRASIL, 2012a).

In this sense, comprehensive care for women's health still has weaknesses. Regarding women with physical disabilities, the difficulty of physical and instrumental structural access to assist them is highlighted, as well as the lack of encouragement and training of health professionals to care for this group, which is a reality not only in Brazil as in several countries around the world (HANLON; PAYNE, 2018; MARTINS et al., 2018; MITRA et al., 2017).

Therefore, this study aimed to evaluate the organization of Primary and Secondary Care health services regarding prevention and control of Cervical Cancer, aimed at women with physical disabilities.

## METHODS

This is a descriptive, cross-sectional study with a quantitative approach, carried out in Primary Health Care services in 13 cities in the State of Rio Grande do Sul, belonging to the 9th (Cruz Alta), 17th (Ijuí), and 19th (26 cities) Regional Health Coordinations (RHC), after approval by the Research Ethics Committee, and composes the main author's master's thesis.

The study population consisted of nurses working in the services included in the study, all working in the cervical cancer screening program. The sample measurement was performed based on a survey of the number of professionals in the online system of the National Register of Health Establishments (NRHE) from April to May 2018 (CNES, 2018). In this survey, 145 nurses were identified who composed the study population. Out of this total, two did not accept to participate in the study, three were on leave from their

work activities and 87 did not return to the questionnaire used in the research data collection. Thus, the population consisted of 53 nurses.

For data collection, an instrument previously validated by the Delphi Technique was used, called “Questionnaire for the Evaluation of the Health Service on the Care of Women with Physical Disabilities in the Context of Prevention of Cervical Cancer” (SPERLING et al., 2021), which was made available to participants to answer and return to the researchers within a maximum period of 30 days. This instrument has the purpose of evaluating the services of primary and secondary health care regarding the care of women with physical motor disabilities in the prevention of cervical cancer, organized into 4 domains that assess: Human Resources (domain 1), Physical Resources (domain 2), Service and Assistance Organization (domain 3) and Health Education (domain 4), encompassing a total of 34 objective items, in addition to 2 subjective questions that address the average and frequency of care for women with disabilities physical health, and suggestions for implementing/strengthening health care for these women.

The instrument uses a Likert scale in all items, scaled in five 05 points (alternatives) for the answers, which are valued, serving as a basis for calculating the scores: “certainly yes” (value = 5), “probably yes” (value = 4), “don't know/don't remember” (value = 3), “probably not” (value = 2) and “certainly not” (value = 1). These values are assigned to items that have a positive connotation, that is, the highest the value obtained, the better the result. For items that have an inverse connotation, the values are also inverted: “certainly yes” (value = 1), “probably yes” (value = 2), “I don't know/don't remember” (value = 3), “probably no” (value = 4) and “certainly not” (value = 5).

In the end, all domains are scored and the final score of each one is transformed into a linear scale from "zero to 100", in which "zero" indicates weaknesses in the care of women with disabilities for the prevention of cervical cancer, and "100" indicates the quality of care for women with disabilities regarding prevention of cervical cancer. The measurement of scores was performed according to the instrument's scoring manual.

The data obtained were tabulated and analyzed using the Statistical Package for Social Sciences (SPSS) version 25.0. Descriptive statistics were used with the accounting of absolute frequency (n) and percentage (%) for categorical variables and measures of position and dispersion (mean, median, standard deviation, minimum and maximum values) for continuous variables, in addition to calculating the Cronbach's alpha coefficient to assess the internal consistency of the items and domains of the questionnaire.

## RESULTS

Most study participants (77.3%) work in primary and secondary health care services in cities belonging to the 9th (n=19) and 17th (n=22) RHC and 49.1% (n=26) reported that they annually assist women with physical disabilities in the CC screening program of their workplace. Another 11.3% (n=6) and 1.9% (n=1) reported that the service frequency is semiannual and monthly, respectively. When quantifying the number of women with physical disabilities seen for cervical cancer screening, 39.6% (n=21) of the nurses reported care for one to three women and 17.0% of them (n=9) indicated caring for one to four or more women. Moreover, 35.9% (n=19) of the participants indicated that there was no assistance for women with physical disabilities in the screening program for this disease.

When calculating the scores for each of the domains, based on the Scoring Manual of the instrument used in the research, higher averages were obtained in domains 1 (human resources) and 3 (organization of service and assistance), and lower averages in domains 2 (physical resources) and 4 (health education), respectively (Table 1). The value of Cronbach's alpha ( $\alpha$ ) ranged from 0.566 (domain 3) to 0.863 (domain 4), and the instrument was considered consistent according to the global value of this measurement property ( $\alpha = 0.841$ ) (Table 1).

Table 1 - Descriptive statistics and Cronbach's alpha of the domains of the Health Service Assessment Questionnaire on the Care of Women with Physical Disabilities in the context of Cervical Cancer Prevention. Nurses of Primary Health Care in Rio Grande do Sul, Brazil. Jun to Dec/2018.

Domain	Mean (SD)	Minimum	Median	Maximum	Cronbach's alpha *
<b>1 – Human Resources</b>	67,1 (14,2)	15,0	75,0	75,0	0,783
<b>2 – Physical Resources</b>	48,5 (25,6)	0,0	50,0	100,0	0,651
<b>3 – Organization of Service and Assistance</b>	62,7 (14,2)	31,2	64,6	95,8	0,566
<b>4 – Health Education</b>	35,2 (20,9)	0,0	33,9	80,3	0,863

Source: Survey Data (2018)

\*Reference Values: above 0.7 = ideal; 0.6 – 0.7 = satisfactory (HAIR *et al.*, 2005; SOUZA; ALEXANDRE; GUIRARDELLO, 2017).

When the correlation between the evaluation domains of the health service and the professional nurse regarding the care of women with physical disabilities in the context of cervical cancer prevention was verified, it was found that there is a significant

correlation with  $p < 0.05$  between all domains, except for the relationship between "Health Education" and "Human Resources" ( $p = 0.261$ ).

When analyzing the results regarding the answers to the items Domain 1 (human resources), 79.2% ( $n = 42$ ) of the health professionals interviewed reported that, in the primary health care services where they work there are community health agents (CHA), at least one nurse and a doctor, as well as nursing assistants/technicians involved in the care of people with physical disabilities, all health professionals who are part of the basic team of the Family Health Strategy (FHS) / Basic Health Unit (BHU) (Table 2).

Table 2 - Frequency of Domain 1 (Human Resources) of the Health Service's Assessment of Care for Women with Physical Disabilities in the context of Cervical Cancer Prevention. Nurses of Primary Health Care in Rio Grande do Sul, Brazil. Jun to Dec/2018.

<i>1 - Human Resources</i>	<b>AY*</b>	<b>PY*</b>	<b>DKDR*</b>	<b>PN*</b>	<b>AN*</b>
	N (%)	N (%)	N (%)	N (%)	N (%)
a) Does this service have community health workers involved in monitoring people with physical disabilities?	42 (79,2)	4 (7,5)	- -	3 (5,7)	4 (7,5)
b) Does this service have (at least one) professional nurse involved in the care of people with physical disabilities, responsible for carrying out the collection of the Pap smear?	40 (75,5)	9 (17,0)	1 (1,9)	3 (5,7)	- -
c) Does this service have nursing assistants/technicians involved in caring for people with physical disabilities?	43 (81,1)	7 (13,2)	- -	2 (3,8)	1 (1,9)
d) Does this service have (at least one) medical professional involved in the care of people with physical disabilities?	40 (75,5)	10 (18,9)	1 (1,9)	2 (3,8)	- -

Source: Survey Data (2018).

\*AY= Absolutely, yes; PY= Probably yes; DKDR= I don't know/I don't remember; PN= Probably not; AN= Absolutely not.

In Table 3, the results referring to domain 2 (physical resources) are described. It's possible to see that most participants (62.3%;  $n = 33$ ) have physical access structures, such as external ramps and adequate doors (56.6%;  $n = 30$ ) for the passage of people with physical mobility (eg wheelchair users) in the health services where they work (items "a" and "b"). However, it was indicated by 54.7% ( $n = 29$ ) of the professionals interviewed that there is no availability of adapted rooms for the care of women in this situation, nor adapted bathroom and gynecological table (77.4%;  $n = 41$ ) to perform the cytopathological examination (items "c" and "d").

Table 3 - Frequency of Domain 2 (Physical Resources) of the Health Service's Assessment of Care for Women with Physical Disabilities in the context of Cervical Cancer Prevention. Nurses of Primary Health Care in Rio Grande do Sul, Brazil. Jun to Dec/2018.

<i>2 - Physical Resources</i>	<b>AY*</b>	<b>PY*</b>	<b>DKDR*</b>	<b>PN*</b>	<b>AN*</b>
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	N (%)	N (%)	N (%)	N (%)	N (%)
a) Does the service have external access ramps and entrance doors, suitable for access by people with physical disabilities?	33 (62,3)	9 (17,0)	-	1 (1,9)	10 (18,9)
b) Are there openings (doors) in the service rooms in this service suitable for access by people with physical mobility?	30 (56,6)	11 (20,8)	1 (1,9)	2 (3,8)	9 (17,0)
c) Are there adapted rooms available in this service to assist women with physical motor disabilities during their appointment with health professionals?	8 (15,1)	9 (17,0)	1 (1,9)	6 (11,3)	29 (54,7)
d) Does the service have an examination room with an adapted bathroom and a gynecological table adapted for carrying out the Pap smear test in women with physical motor disabilities?	3 (5,7)	3 (5,7)	-	6 (11,3)	41 (77,4)

Source: Survey Data (2018).

\*AY= Absolutely, yes; PY= Probably yes; DKDR= I don't know/I don't remember; PN= Probably not; AN= Absolutely not.

However, it was indicated by 54.7% (n=29) of the professionals interviewed that there is no availability of adapted rooms for the care of women in this situation, nor adapted bathroom and gynecological table (77.4%; n=41) to perform the cytopathological examination (items “c” and “d”). Regarding domain 3 (organization of service and assistance), it was identified that most of the services in which the interviewees work do not have alternative service hours for the general population, including women with physical disabilities (item “a”). However, it is possible to schedule appointments with nurses and Pap smear tests (item “b”). On the other hand, a negative factor was obtained in reverse score questions, such as item “j” and item “k”, by 39.6% (n=21) and 54.7% (n=29) of the participants, respectively, when referring to the situation of not being able to collect the Pap smear test or having some complication happen during the exam, respectively (Table 4).

Table 4 - Frequency of Domain 3 (Organization of the Service and Assistance) of the Health Service's Evaluation of the Assistance to Women with Physical Disabilities in the context of Cervical Cancer Prevention. Nurses of Primary Health Care in Rio Grande do Sul, Brazil. Jun to Dec/2018.

<i>3 – Service and Assistance Organization</i>	AY*	PY*	DKDR*	PN*	AN*
	N (%)	N (%)	N (%)	N (%)	N (%)
a) Does this service have alternative hours to provide assistance? (example: third shifts)	10 (18,9)	6 (11,3)	1 (1,9)	9 (17,0)	27 (50,9)
b) Does this service have a schedule for nurse appointments and for carrying out the Pap smear?	48 (90,6)	3 (5,7)	-	1 (1,9)	1 (1,9)
c) Is there a computerized system in the health service containing information about the service provided to users (such as scheduled appointments, absences from service)?	38 (71,7)	9 (17,0)	-	3 (5,7)	3 (5,7)

d) In your health service, do women with physical motor disabilities request to undergo the Pap smear test “spontaneously”?	21 (39,6)	16 (30,2)	2 (3,8)	7 (13,2)	7 (13,2)
e) In your health service, do women with physical motor disabilities request to undergo the Pap smear test through an active search by the health team?	16 (30,2)	16 (30,2)	4 (7,5)	9 (17,0)	8 (15,1)
f) In your health service, do women with physical motor disabilities request to undergo the Pap smear test through referral by the ESF doctor?	13 (24,5)	14 (26,4)	4 (7,5)	8 (15,1)	14 (26,4)
g) In your health service, do women with physical motor disabilities request to undergo the Pap smear test through referral by a doctor from another service?	6 (11,3)	6 (11,3)	6 (11,3)	16 (30,2)	19 (35,8)
h) When women with physical motor disabilities are assisted to undergo the Pap smear, are they accommodated in the gynecological position?	24 (45,3)	21 (39,6)	5 (9,4)	- -	3 (5,7)
i) When assisting women with physical motor disabilities to undergo the Pap smear, is there a need for other equipment to improvise a suitable position to perform the Pap smear?***	11 (20,8)	9 (17,0)	6 (11,3)	18 (34,0)	9 (17,0)
j) Has there ever been a situation in which it was not possible to assist women with physical motor disabilities to undergo the Pap smear?***	21 (39,6)	5 (9,4)	12 (22,6)	7 (13,2)	8 (15,1)
k) Have there been any complications during the Pap smear test in women with physical motor disabilities? (example: failure to collect, physical or emotional discomfort experienced by the woman, falls, etc...)**	29 (54,7)	5 (9,4)	11 (20,8)	4 (7,5)	4 (7,5)
l) Are you aware of and follow specific guidelines for carrying out the collection of Pap smears in women with physical motor disabilities?	18 (34,0)	16 (30,2)	5 (9,4)	3 (5,7)	11 (20,8)

Source: Survey Data (2018).

\*AY= Absolutely, yes; PY= Probably yes; DNDR= I don't know/I don't remember; PN= Probably not; AN= Absolutely not.\*\*Reverse score.

Regarding Health Education (domain 4), the results show that most professional nurses were not trained to perform the Pap smear test in women with physical disabilities in their workplaces (items “a” and “b”), however, actions in health education regarding the prevention of cervical cancer are carried out with women in general (item “c”) (Table 5).

Still concerning domain 4, regarding the knowledge of Law No. 13.362, of November 23, 2016 (BRASIL, 2016b), mentioned in items “e”, “f”, “g”, “h” and “i”, most nurses reported not knowing about this law, not through electronic means and/or training, or through other professionals. A larger number of interviewees also did not obtain specific guidelines to perform the collection of Pap smears in women with physical



motor disabilities in their professional training (undergraduate/graduate), nor through information in scientific documents (items “m” and “n”) (Table 5).

Table 5 - Frequency of domain 4 (Health Education) of the Health Service's Assessment of Assistance to Women with Physical Disabilities in the context of Cervical Cancer Prevention. Nurses of Primary Health Care in Rio Grande do Sul, Brazil. Jun to Dec/2018.

<i>4 - Health Education</i>	<b>AY*</b>	<b>PY*</b>	<b>DKDR*</b>	<b>PN*</b>	<b>AN*</b>
	N (%)	N (%)	N (%)	N (%)	N (%)
a) Were you already trained to care for people with physical disabilities when starting at this job?	5 (9,4)	8 (15,1)	2 (3,8)	7 (13,2)	31 (58,5)
b) Have you ever been or are you able to perform the Pap smear test in women with physical motor disabilities after already working at this job?	3 (5,7)	4 (7,5)	3 (5,7)	9 (17,0)	34 (64,2)
c) Are health education campaigns carried out to address the prevention of cervical cancer for women assisted in the health service?	39 (73,6)	8 (15,1)	- -	3 (5,7)	3 (5,7)
d) Are health education campaigns carried out to address cervical cancer prevention, aimed at women with physical motor disabilities?	7 (13,2)	9 (17,0)	2 (3,8)	15 (28,3)	20 (37,7)
e) Are you aware of Law No. 13362, of November 23, 2016, which institutes access to preventive exams (breast and cervix) for women with physical disabilities?	15 (28,3)	9 (17,0)	4 (7,5)	8 (15,1)	17 (32,1)
f) Did you have access to information about the Law mentioned in the previous question, through means of communication (digital media, print, radio, television, others)?	10 (18,9)	7 (13,2)	8 (15,1)	9 (17,0)	19 (35,8)
g) Did you have access to information about the Law mentioned in the previous question through training courses, seminars, congresses, or lectures?	3 (5,7)	2 (3,8)	5 (9,4)	10 (18,9)	33 (62,3)
h) Did you have access to information about the Law mentioned in the previous question through reports from other professionals?	5 (9,4)	4 (7,5)	6 (11,3)	10 (18,9)	28 (52,8)
i) Did you have access to information about the Law mentioned in the previous question during your training (undergraduate and/or graduate studies)?	4 (7,5)	1 (1,9)	5 (9,4)	9 (17,0)	34 (62,2)
j) Are discussions of cases about people with physical motor disabilities, users of this service, carried out by the team of health professionals?	15 (28,3)	19 (35,8)	1 (1,9)	10 (18,9)	8 (15,1)
k) Did you have access, through training courses, seminars, conferences, or lectures, to specific guidelines for carrying out the Pap smear test in women with physical motor disabilities?	4 (7,5)	5 (9,4)	1 (1,9)	14 (26,4)	29 (54,7)
l) Did you have access, through experiences reported by other professionals, to specific guidelines for carrying out the Pap smear test in women with physical motor disabilities?	5 (9,4)	11 (20,8)	3 (5,7)	13 (24,5)	21 (39,6)
m) Did you have access, during your training (undergraduate and/or graduate studies), to specific guidelines for carrying out the Pap smear test in women with physical motor disabilities?	4 (7,5)	4 (7,5)	4 (7,5)	8 (15,1)	33 (62,3)

n) Did you have access, through research for information made available in documents and scientific studies, to specific guidelines for carrying out the Pap smear test in women with physical motor disabilities?	13 (24,5)	12 (22,6)	2 (3,8)	6 (11,3)	20 (37,7)
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Source: Survey Data (2018).

\*AY= Absolutely, yes; PY= Probably yes; DNDR= I don't know/I don't remember; PN= Probably not; AN= Absolutely not.

## DISCUSSION

Knowledge about the functionality of health services is an important tool to support the decisions needed to improve their dynamics, to offer a better quality of care to the population (LIMA; MONTEIRO; VASCONCELOS, 2017). In the present study, aspects concerning this purpose were identified, regarding the screening of cervical cancer in women with physical disabilities.

Understanding the population served by health services is also essential for planning actions and interventions according to the needs presented by reality. Thus, when answering questions about the frequency and the average number of women with physical disabilities who undergo cervical cancer screening in health services, most interviewees (49.1%; n=26) refer to an annual frequency. However, a low number of women with physical disabilities (between 1-3 and 4 or more) who undergo Pap smear (39.6%; n=21) and 17.0% (n=9) of nurses, respectively. Factors such as the lack of active search for health professionals, health service inaccessibility, or even the lack of information about the need for this exam by this population, are barriers that women may encounter (RAMJAN et al., 2016), and explain the results observed in our research.

Regarding the mean scores of the domains (Table 1), the results obtained indicate that the primary health care services were better scored in terms of human resources (domain 1) (67.1%), and the organization of the service and assistance (62.7%). Ferreira et al. (2018) show in their study the importance of team planning. Health actions to be developed with the population, with a sufficient number of professionals to plan interventions, ensure their horizontality and implementation.

The greatest difficulties/weaknesses are indicated in the physical resources of the services, which obtained a score of 48.5 points, and in the health education part (score of 35.2 points). According to Amorim, Liberali and Neta (2018), many public health services still have problems regarding the adequacy of physical resources in health care,

not only for women with physical motor disabilities but also for all people with some type of disability. In addition, continuing health education is not an adopted or prioritized strategy to improve the quality of care in many health services (RAMOS; QUIULO; DE ANDRADE, 2018).

As for human resources (domain 1), it was found that the services where the participants work have a primary health care team available, as evidenced in items “a”, “b”, “c” and “d” (Table 2). For Family Health Strategy (FHS) to work effectively, the composition of a minimum team is needed: doctor, nurse, nursing assistant/technician, CHA, dentist, and dental assistant (BRASIL, 2012b). However, it is understood that the professionals that are most involved with the prevention and control of cervical cancer are those identified in the instrument used in the research (physician, nurse, nursing assistant/technician, and CHA), both in primary and secondary health care (BRASIL, 2013). Thus, the results obtained are positive.

About the organization of service and assistance (domain 3), it was identified that most services do not have alternative hours of service for the population (50.9%), although it is possible to schedule appointments with nurses and cytopathological examination (90.6%) (Table 4). This is a reality in many primary health care services in Brazil, which restricts access to health care for certain women, and contributes to low coverage of cervical cancer screening (JUSTO et al., 2017; ROSSETTO et al., 2017).

Regarding the assessment of care for women with physical disabilities for the Pap smear (Table 4), most nurses reported that there have already been complications during the exam (54.7%) and situations in which it was not possible to collect the sample (39,6%), despite being able to position the women in the correct gynecological position (45.3%). The lack of adequate equipment, such as an adapted gynecological table, to perform the Pap smear, becomes a barrier to the examination, different from what was found in the study by Halcomb et al. (2018), carried out in Australia, where electric gynecological tables are used for the exam.

From the results obtained in Domain 2 (Table 3), it is possible to verify that there are difficulties in adapting physical resources, mainly related to the adapted internal physical structures (rooms, rooms with adapted bathroom and gynecological table), evidenced in item “c” (54.7%) and item “d” (77.4%), as identified in the North American study by Hanlon and Payne (2018). This situation can be considered as one of the main barriers to ensure health care for women with physical disabilities in primary health care,

including the prevention of cervical cancer (HANLON; PAYNE, 2018; SILVA; REICHERT; BADALOTTI, 2018; SPERLING; COSER, 2018).

Not only in Brazil, but in other Latin American countries, and also in developed countries, this reality is still observed and can be evidenced by the low numbers and rates found related to women with physical disabilities who undergo the Pap smear as a procedure to prevent cervical cancer (IEZZONI; KURTZ; RAO, 2016; SAKELLARIOU; ROTAROU, 2017; STEELE et al., 2017). As shown in the study by Sakellariou and Rotarou (2017), carried out in Chile, which identified a lower probability (1.4 times) of women with physical disabilities to undergo the Pap smear compared to women without disabilities. In the United States, these differences were shown by identifying a decrease in the percentage of Pap smear rates among women with disabilities in the period 1998 and 2010 (82.7% in 1998 to 78.4% in 2010) (IEZZONI; KURTZ; RAO, 2016), as well as in the study by Steele et al. (2017), in which women with mobility limitations had a lower prevalence of performing cervical cancer screening than those without limitations.

Still on the aspects identified in domain 2 (physical resources) (Table 3), although studies show that the difficulty or inexistence of access to health services by people with physical disabilities (such as ramps and doors) is still a common and frequent found reality (AMORIM; LIBERALI; NETA, 2018; SILVA; REICHERT; BADALOTTI, 2018), in this research, most interviewees (62.3% - item "a" and 56.6% - item "b", respectively) did not consider this to be the main barrier faced in the services in which they work (Table 3).

When analyzing aspects related to domain 4 (health education), it is clear that there is still a lack of stimulus in continuing the education of professionals in this area, as evidenced in items "a", "b", "g", "h", "i", "k" and "m" (Table 5). This result corroborates the studies by Merten et al. (2015) and Amorim, Liberali and Neta (2018), that point out the need for training and education in permanent health, both for cancer screening in patients with disabilities, and general care to all people with disabilities. This qualification would ease not only the service provided by health professionals but also the understanding of the patients themselves about the importance of undergoing health care procedures.

A study about the care of women with physical disabilities undergoing the Pap smear test concluded that 33.9% of the nurses interviewed had training on how to care for people with physical disabilities, most of them obtained their training through short

courses (HALCOMB; PETERS; SMYTH, 2019). This allows a comprehensive and qualified service to this population.

Furthermore, it is necessary to encourage the realization of the Pap smear also in women with physical disabilities. In order to do this, special attention must be given to social determinants such as the barriers found in the health system, within services (KESSLER, 2017). In this process, one of the changes that need to be carried out is continuing the education of health professionals involved in the prevention of cervical cancer, especially nurses, who are the main professionals involved in the collection of the Pap smear in primary health care services.

## CONCLUSION

Primary and secondary health services were evaluated, through the answers of professional nurses working in them, about the organization and care provided, as well as the human and physical resources offered to care for women with physical disabilities in the context of prevention and control of cervical cancer.

It is relevant to discuss the continuing education of health professionals involved in activities of promotion and prevention of cervical cancer, as well as in the early diagnosis of the disease, through screening. Health care for women with physical disabilities in this context must be guaranteed, as they are considered a special population for presenting singularities that need to be respected and attended using a humane approach.

To guarantee the care of these women, external (ramps, adapted doors) or internal (adapted gynecological table) physical structural access must be ensured in health services at all levels of care, especially at the primary level, which is the gateway to assistance to the entire population. Thus, more government stimulus and changes in women's health policies and guidelines are suggested, in which women with physical disabilities can be cited as a special population, guaranteeing their rights already described by law.

It is suggested, for future studies, to obtain data regarding the socio-demographic characterization of the interviewed population, such as professional profile, working time, training time, among others, which were not investigated in this research.

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