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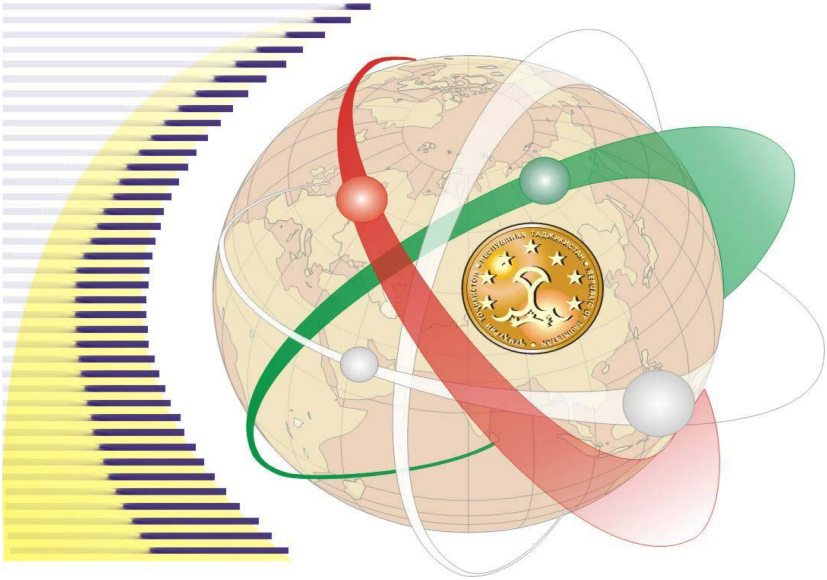

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CERVICAL CANCER SCREENING IN COTONOU: WHAT ARE THE LESSONS LEARNED?

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ABSTRACT

***Objectives**: This study aimed to analyze epidemiological data and measure the level of knowledge of women about cervical cancer and screening in an urban context.*
***Materials and methods**: During a cervical cancer screening campaign carried out in Cotonou, Benin, 154 women were included. Sociodemographic*

data, gyneco-obstetric profile, knowledge of cervical cancer screening were noted.
***Results**: Mean age was 32.17 years. Over 70% of women were screening for cervical cancer for the first time. Mean number of children was 2.34 ± 1.6. The majority (56.13%) did not use hormonal contraceptives. Mean age at first sexual intercourse was 19.03 years. More than half of the women (59.35%) had not had a gynecological consultation during the last 12 months. Only 44.16% of women knew at least one cause of cervical cancer, and among them, 41.55% of women identified STIs and 35.71% multiple partners as possible causes. For 74.02% of women, cervical cancer could not occur before puberty; 59.74% believed that a woman who has never had sex could have cervical cancer. More than 60% knew no signs of it. For those who knew at least one sign, the most cited was bleeding outside of menstruation (30.52%). The majority, nearly 92%, knew that there is a treatment for cervical cancer and 77.92% said it can be cured. More than half of the women, 52.26%, knew at least one prevention strategy and the most cited were screening and gynecological follow-up. For the majority of women (77.92%) screening should be done every year. The main barriers to carrying out screening were the lack of information (74.67%), the high cost (40.26%) and ignorance of the structures where screening can be carried out (32.46%). More than 16% of women and almost 15% respectively expressed fear of poor performance conditions and fear of pain related to screening.*
***Conclusion**: This study underlines the need to intensify awareness and information messages, and to multiply screening strategies, even in urban populations with women with a good socioeconomic level.*

***Keywords**: Cervical cancer-screening-Knowledge-Barriers.*

RESUME

***Objectifs**: Cette étude avait pour objectifs d'analyser les données épidémiologiques et de mesurer le niveau de connaissance des femmes sur le cancer du col de l'utérus et le dépistage dans un contexte urbain.*
***Matériel et méthodes :** Au cours d'une campagne de dépistage du cancer du col de l'utérus réalisée à Cotonou, au Bénin, 154 femmes ont été incluses. Les données sociodémographiques, le profil gynéco-obstétrique, les connaissances sur le dépistage du CCU ont été notés.*

Résultats : *L'âge moyen était de 32,17 ans. Plus de 70% des femmes réalisaient le dépistage du CCU pour la 1ère fois. Le nombre moyen d'enfants était de 2,34 ± 1,6. La majorité (56,13%) n'utilisait pas de contraceptifs hormonaux. L'âge moyen du premier rapport sexuel était de 19,03 ans. Plus de la moitié des femmes (59,35%) n'avait pas eu de consultation gynécologique au cours des 12 derniers mois. Seulement 44,16% des femmes connaissaient au moins une cause du CCU, et parmi elles, 41,55% des femmes avaient identifié les IST et 35,71% la multiplicité des partenaires comme causes possibles. Pour 74,02% des femmes, le CCU ne pouvait survenir avant la puberté ; 59,74% pensaient qu'une femme qui n'a jamais eu de rapport sexuel pouvait avoir le CCU. Plus de 60% n'en connaissaient aucun signe. Pour celles qui connaissaient au moins un signe, le plus cité était les saignements en dehors des menstruations (30,52%). La majorité, près de 92,% savait qu'il existe un traitement pour le CCU et 77,92% affirmaient que l'on peut en guérir. Plus de la moitié des femmes, 52,26%, connaissaient au moins un moyen de prévention et les plus cités étaient le dépistage, le suivi gynécologique. Pour la majorité des femmes (77,92%) le dépistage doit se faire chaque année. Les principales barrières à la réalisation du dépistage étaient le manque d'informations (74,67%), le coût élevé (40,26%) et l'ignorance des structures où le dépistage peut être réalisé (32,46%). Plus de 16% des femmes et près de 15% ont respectivement exprimé la crainte des mauvaises conditions de réalisation et la crainte de douleur liée au dépistage.*
Conclusion : *Cette étude souligne la nécessité d'intensifier les messages de sensibilisation et d'information, et de multiplier les stratégies de dépistage, même en population urbaine avec des femmes ayant un bon niveau socioéconomique.*

Mots clé : *Cancer du col de l'utérus-dépistage-Connaissances-Barrières.*

INTRODUCTION

Cervical cancer is a serious pathology that affects women regardless of social category. Its prevalence is constantly increasing in the world and more and more in the countries of the South [1, 2]. In fact, in low-resource countries, cervical cancer is the second leading cause of cancer death in women, after breast cancer [3]. Mortality and morbidity related to gynecological cancers in general and cervical cancer in particular are very high [4, 5]. The

epidemiological data are alarming and call for specific prevention interventions [1].

This pathology also represents a challenge in Africa, it occurs in increasingly young women and affects all social categories [6, 7]. The prevalences are worrying and vary according to the country and the studies. In 2018, Globocan estimated around 570,000 the number of new cases of cervical cancer per year worldwide, with 311,000 (54.6%) deaths during the same year [3]. In Africa, there were more than 25,000 new cases of cervical cancer, causing more than 70% of deaths [8]. In Benin, according to statistics from the National Program for the Fight against Non-Communicable Diseases, more than 800 new cases of cervical cancer are detected each year. With high direct mortality. With support is cumbersome, time-consuming and expensive. A major weapon in the prevention of this pathology is screening [9]. The benefit is great because pre-cancerous lesions, when detected early, are taken care of and treated with a good prognosis. The World Health Organization (WHO) recommends population screening coverage of at least 80% [1, 10]. Screening is recommended for all women of childbearing age and should be done regularly. This constitutes a great challenge because of the organization and the logistical aspects, the availability of the entire health system, but also the support of the women themselves [11]. It is in this vision of strengthening prevention that a free screening campaign was organized in Cotonou. The objective of this study was to highlight the epidemiological data and to highlight the level of knowledge of women on this pathology.

METHODS

Setting, type and period of study

This is a descriptive cross-sectional study that took place in Cotonou, the economic capital of Benin, in 3 sites: the University Hospital Center for Mothers and Children, and 2 private clinics, the clinic SEVI and the point E clinic. The study took place during a free cervical cancer screening campaign carried out in March and May 2021.

Study population

It was made up of women living in Cotonou.

- Inclusion criteria

- Female aged 18 or over
- Permanent residence in Cotonou

- Exclusion criteria
  - Refusal to participate in the study

Sampling

It was a public screening campaign open to all women and based on volunteering. We used a non-probability method, exhaustive sampling.

Collection of data

The data was collected during an individual interview using a questionnaire. The team of investigators was made up of medical student interns in order to facilitate dialogue and obtain satisfactory answers, since the questions concerned intimate aspects. After answering the questions, the woman was then received in consultation by the gynecologist where she underwent a complete medical examination. Then a screening was carried out by a cervical smear examination.

Variables

Several types of variables were collected.
- Sociodemographic variables
- Gyneco-obstetrical information
- Knowledge about cervical cancer
- Knowledge of ways to prevent cervical cancer
- Knowledge about cervical cancer screening

Statistical analysis strategy

After counting all the questionnaires, inconsistencies, duplicates, missing data were systematically detected and corrected. The means of the quantitative variables and the percentages of the qualitative variables were calculated and presented. Several variables were represented using graphs. A description of the socio-demographic characteristics of the study population was made. Then the distribution of women according to the variables of interest related to cervical cancer, means of prevention and screening was made.

Ethical aspects

All women were included on the basis of free and informed consent, an essential prerequisite before being integrated into the study. Women had the right to withdraw from the survey at any time. Refusal to participate in the survey did not prevent participation in the free screening campaign. All data collected was anonymous and confidential. The interviews were conducted by female students in order to preserve the privacy and dignity of the women who participated in the study.

RESULTS

A total of 154 women were included in the survey.

Sociodemographic characteristics

Mean age (SD) was 32.17 years ± 11.04. More than half of the women had a higher level of education, i.e. 55.85%. Nearly 60% of the women were married, 51.95% were civil servants or executives. Mean number of children was 2.34 ± 1.6. These results are shown in Table I.

Table I: Sociodemographic characteristics

Variables	n	Mean (SD)	(%)
Age in years		32.17 (11.04)	
Educational level			
No schooling	9		5.84
Primary/Secondary	59		38.31
Superior	86		55.85
Marital status			
Single	44		28.39
Maried	92		59.35
Divorced	10		6.45
Widow	8		5.16
Occupation			
Civil servant/executive	78		51.95
Shopkeeper	43		29.87
Craftswoman	17		11.04
Unemployed	12		7.79
Student	4		2.59
Number of children		2.34 (1.6)	

Gyneco-obstetrical profile

More than half of the women, 56.13% did not use hormonal contraceptives. The mean age at first sexual intercourse was 19.03 years ± 3.1. Furthermore, 63.23% of women did not have regular sexual activity (Table II).

Table II: Gyneco-obstetrical profile

Variables	n	Mean (SD)	(%)
Use of hormonal contraceptives			
Yes	66		42.86
No	88		57.14
Age at first intercourse		19.03 (3.1)	
Regular sexual activity			
Yes	56		36.33
No	98		63.67

More than half of the women or 59.35% did not have a gynecological follow-up, at least one gynecological consultation during the last 12 months (figure 1).

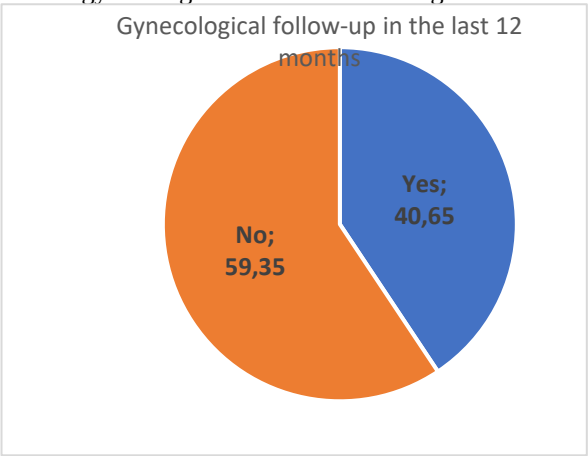

Figure 1: Gynecological follow-up in the last 12 months

About half of the women surveyed, ie 52.90%, had at least one gynecological consultation during the last 3 years (Figure 2).

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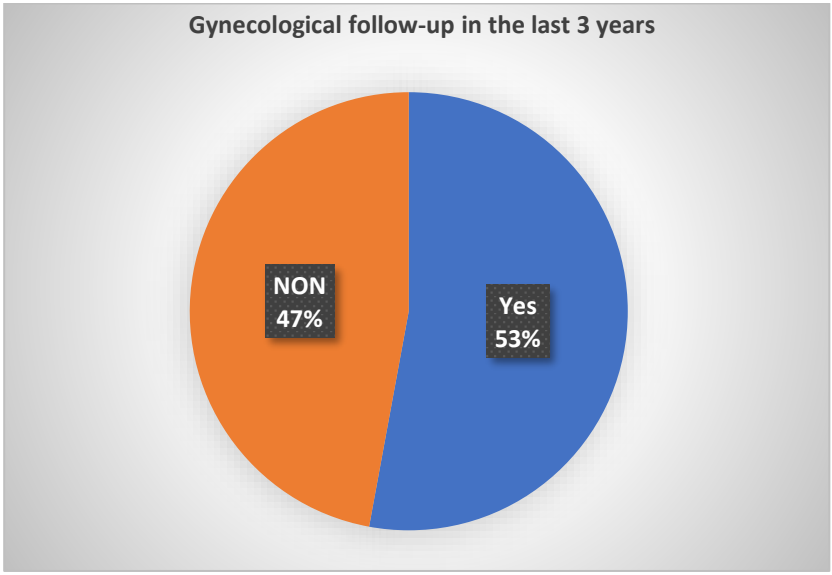

Figure 2 : Gynecological follow-up in the last 3 years.

The majority of women said they had no family history of gynecological cancers.

Knowledge about cervical cancer

Regarding women's knowledge of cervical cancer, the majority (98.05%) had recognized the existence of cervical cancer. Only 44.16% of women knew at least one cause of cervical cancer, and among them, 41.55% of women identified STIs and 35.71% identified multiple partners as possible causes of cervical cancer. Cervical cancer. For 74.02% of women, cervical cancer could not occur before puberty. These results are shown in Table III.

Table III: Knowledge of women about cancer of the cervix (1)

Variables	n	(%)
Existence of cervical cancer		
Yes	151	98.05
No	3	1.95
Knowledge of at least one cause of cervical cancer		
Yes	68	44.16
No	86	55.84
Possible causes of cervical cancer		
History of STI	64	41.55
Multiplicity of sexual partners	55	35.71
Poor sexual hygiene		33.76
	52	
Repeated abortions	50	32.46
Earliness of sexual intercourse	42	27.27
Family history of cancer	40	25.97
Contraceptive use	23	14.94
Multiparity	20	12.99
Occurrence of cervical cancer before puberty		
Yes	40	25.98
No	114	74.02

The majority of women (83.12%) said that cervical cancer could occur after menopause; 59.74% believed that a woman who has never had sex could have cervical cancer. More than 60% knew no signs of cervical cancer. For those who knew at least one sign, the most cited was bleeding outside of menstruation (30.52%). The majority, almost 92%, knew that there is a treatment for cervical cancer and 77.92% of the women affirmed that it can be cured. These results are described in Table IV.

Table IV: Women's knowledge of cervical cancer (2)

Variables	n	(%)
Occurrence of cervical cancer after menopause		
Yes	128	83.12
No	26	16.88
Occurrence of cervical cancer in a woman who has never had sexual intercourse		
Yes	92	59.74
No	62	40.26
Knowledge of at least one sign of cervical cancer		
Yes	57	37.01
No	97	62.99
Signs of cervical cancer		
Bleeding outside of menstruation	47	30.52
Bleeding during intercourse	30	19.48
Pain during sexual intercourse	29	18.83
Existence of a treatment for cervical cancer		
Yes	141	91.56
No	13	8.44
Possibility of curing cervical cancer		
Yes	120	77.92
No	34	22.08

Knowledge of ways to prevent cervical cancer

More than half of the women, 52.26%, knew at least one means of preventing CCU.

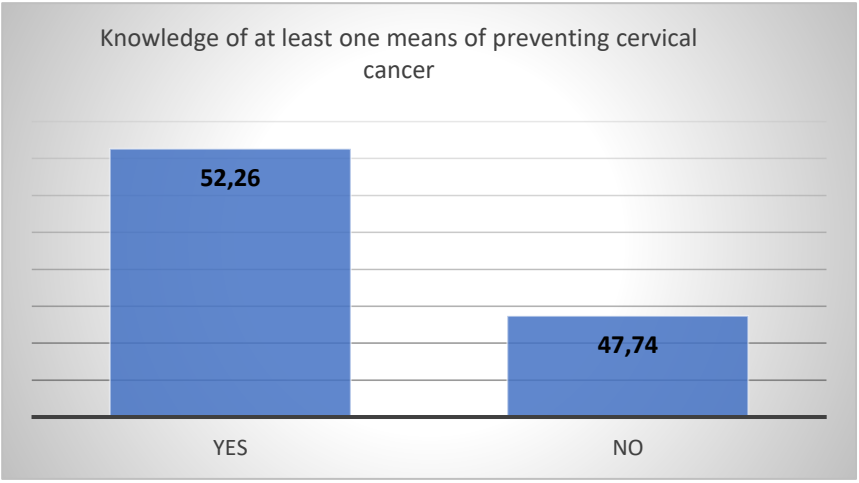

Figure 3: Knowledge of at least one means of preventing cervical cancer.

Among the means of prevention of cancer of the cervix most cited by women, we had screening (46.75%), gynecological follow-up (38.96%) and the uniqueness of the sexual partner (27 .92%).

Performing cervical cancer screening

The majority of women, 75.48%, said they had already heard of cervical cancer screening.

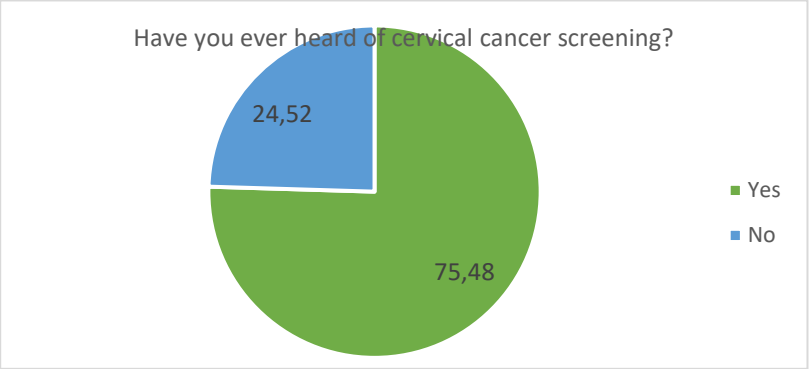

Figure 4: Distribution of women who have ever heard of cervical cancer screening

For the majority of women, i.e. 73.55%, it was the first cervical cancer screening they had done in their life.

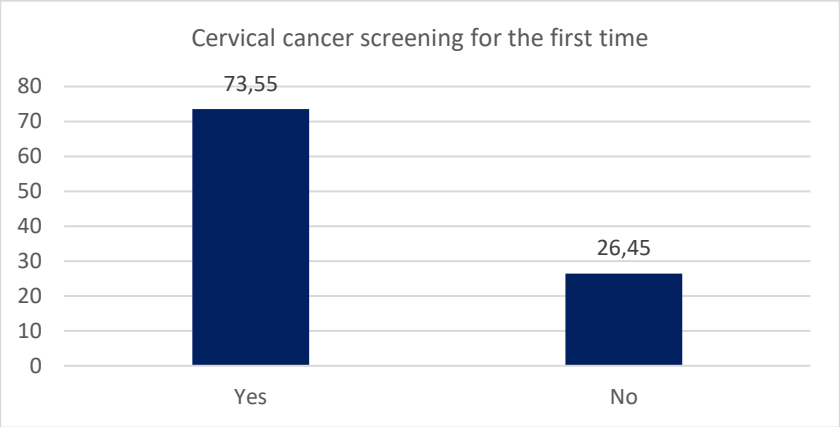

Figure 5: Cervical cancer screening for the first time

Almost all, or 98.05% of the women surveyed said that screening is useful for gynecological follow-up. The majority of women 75.97% felt that screening could be done from the age of 25 and that it was still useful after menopause, 90.26%. For 77.92% of women, screening must be done every

year. According to the women, the main barrier to carrying out the screening was the lack of information 74.67%. The high cost (40.26%) and ignorance of the structures where screening can be performed (32.46%) also represented significant barriers. More than 16% of women and almost 15% respectively expressed fear of poor performance conditions and fear of pain related to screening. These results are shown in Table V.

Table V: Women's perception of cervical cancer screening

Variables	n	(%)
Usefulness of screening for the gynecological follow-up of a woman		
Yes	151	98.05
No	3	1.95
Recommended age for cervical screening		
25 years	117	75.97
60 years	37	24.03
Usefulness of screening after menopause		
Yes	139	90.26
No	15	9.74
Screening frequency		
Each year	120	77.92
Every 3 years	18	11.69
Every 5 years	16	10.39
Barriers to performing screening		
Lack of information	115	74.67
High cost	62	40.26
Don't know where to do it	50	32.46
Lack of time	27	17.53
Fear of screening conditions	26	16.88
Fear of pain during screening	22	14.29
Discomfort	16	10.39

DISCUSSION

The present work aimed to study the epidemiological factors and to analyze women's knowledge about cervical cancer (CCU) and screening, in urban areas.

In our study population, the average age of women was 32.17 years. The same observation was made during screening sessions in several countries in Africa with average ages between 30 and 35 years [1-5]. However, in other countries the population is a little older, for example 40 to 45 years in South Africa [6]. The average age that we observed is higher than the recommended age, 25 years, by the WHO for screening for CCU. This reflects the fact that in general, women begin to worry about this pathology after a certain age. When they are teenagers and young, under 30, they think they are safe from CCU, and are not very receptive to awareness messages. This explanation is consistent with another part of our results: indeed in our study, more than 80% women thought that cervical cancer only occurred after menopause and that screening should be done after menopause. While paradoxically, most of them knew the age recommended by the WHO [7] for screening, but they believe that screening is only really useful after menopause. In sub-Saharan Africa in general, UCC is often diagnosed late and one of the reasons for this is age-related [8].

During this screening campaign, the majority of women had a high level of education, and the dominant profession was that of executives and civil servants, as in other countries such as Sudan [1], Burkina Faso [9] and Tanzania [10]. They belong to a higher social class. These results are similar to other work in several countries [6, 11, 12]. This category of women, who are better educated, is more sensitive to awareness and information campaigns on cervical cancer [6, 9]. The same is true for women living in a couple. Indeed, it is women living in a marital relationship and having regular sexual activity who think they are more exposed to the risk of having gynecological cancer in general and CCU in particular. We considered as regular sexual activity women having at least one sexual intercourse per week. In their minds, women have always linked gynecological pathologies, even non-infectious ones, to the practice of regular sexual activity. This perception is widespread regardless of the geographical environment, in Africa, Asia or Europe.

As with most African women, we noticed in our study population that there was poor gynecological follow-up. Nearly 60% of women have not had a consultation with a gynecologist in the last 12 months. Women have not yet fully understood the value of having regular gynecological follow-ups once

they have started sexual activity. For the most part, they go to a gynecologist doctor only when they are sick and have signs. If not, they don't go. However, this gynecological follow-up is the key to the early detection of pathologies and especially precancerous lesions. The frequency of gynecological follow-up varies according to age [1].

Almost all the women have already heard of the CCU, a similar observation in Tanzania [2], but their level of knowledge is generally average. Less than 45% know at least one cause of CCU and more than 80% thought that CCU only occurs after menopause. This observation is consistent with the literature in sub-Saharan Africa [3]. This state of affairs is worrying and calls for improving the level of knowledge of women about this pathology. And the most cited causes are STIs, multiple sexual partners, poor sexual hygiene and repeated abortions. Among sexually transmitted infections, only HPV infection has been identified as being able to cause precursor lesions of CCU [4, 5]. The other causes cited by women are in fact indirect causes that can lead to an HPV infection.

Regarding the means of prevention, more than 40% of women did not know any means of prevention of CCU. This is a worrying result when we know that prevention is a major weapon in the fight against CCU. Those who knew of means of prevention mainly highlighted screening (46.75%) and regular gynecological follow-up (38.96%). These same factors have been found in other studies [1, 6, 7].

More than 75% of women have already heard of screening for CCU but paradoxically 73.55% of them performed screening for CCU for the first time during this screening campaign which was organised. These observations are similar to what exists in other African countries [2, 3, 7-10]. This really reflects the need to intensify awareness messages in order to encourage many more women to go for screening [11, 12]. And to achieve this objective, it is important to work on the brakes and barriers to carrying out screening. In our study, the women mentioned above all as barriers the lack of information on screening, the high cost [3, 13-15], the lack of information on the places where screening can be carried out [11, 12], but also the fear of pain and of the conditions in which screening is carried out. These limiting factors have been expressed by women and noted in many studies [12, 16-18], even in Europe [6], Asia [19, 20], Latin America and the Caribbean [21].

CONCLUSION

Although cervical cancer is a serious pathology, the level of knowledge of women remains unsatisfactory even among women with a high level of education and living in urban areas. Screening is an effective means of prevention to detect precancerous lesions but it is insufficiently known and practiced. Our study highlighted the need, on the one hand, to intensify information and awareness messages and, on the other hand, to increase screening interventions.

Conflict of interest
None

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