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Cervical Cancer Attitudes and Beliefs—A Cape Town Community Responds on World Cancer Day

MAGHBOEBA MOSAVEL, PHD, CHRISTIAN SIMON, PHD, CATHERINE OAKAR, BA, and SALOME MEYER, MW, UCT

MetroHealth Medical Center, Cleveland, OH (MM, CO); Case Western Reserve University, Cleveland, OH (CS); and the Cancer Association of South Africa, Rondebosch, South Africa (SM).

Abstract

Background—Attitudes and beliefs affect women's cervical cancer screening behavior.

Methods—We surveyed 228 women in Cape Town, South Africa about their screening history, knowledge, beliefs, and access barriers regarding Papanicolaou (Pap) smears and cervical cancer.

Results—More than half of the participants had never had a Pap smear or had 1 more than 10 years ago. One third did not know what a Pap smear was. Lengthy wait times and fatalistic beliefs also affected screening behavior. Ethnicity was associated with differences in beliefs.

Conclusions—Opportunistic cancer screening events are an effective way that women can obtain Pap smears and cancer education.

Cervical cancer is the second most common cancer in women worldwide¹ and the most common cancer among women in developing countries.² In South Africa, where this study was conducted, cervical cancer is the most common cancer in Black women.^{3,4} Significant disparities exist between Black and White women. Peltzer (2001) found that 60.5% of Black women had never received a Papanicolaou (Pap) smear, whereas only 8.4% of White women never had ($P < .0001$).⁵ A study in South Africa found that women having a Pap smear were associated with 70% lower odds of cervical cancer when compared to women who have never been tested.⁶ Research has demonstrated that South African women who are less likely to know about and obtain Pap smears tend to be poorer, less educated, and unemployed.⁷ Recognizing the disparities in incidence and mortality rates, the South African National Department of Health has introduced a screening policy that provides a free Pap smear every 10 years to women 30 and older.⁸ It has been suggested that the new South African policy of 3 Pap smears per woman at the age of 30, 40, and 50 may reduce the incidence of cancer by as much as 87%.⁹

A variety of factors influence women's screening practices for cervical cancer. Accessibility, costs, wait time, and quality of services serve as major barriers to routine screening.¹⁰⁻¹² The discomfort associated with the procedure and an overall distrust of the medical system can also affect screening behavior.¹³⁻¹⁵ Furthermore, characteristics of health providers, such as negative attitudes¹⁶ or a lack of suggesting that a woman obtain a Pap smear,¹⁷ also play an important role. Additionally, research has demonstrated that women's knowledge about cervical cancer and Pap screening is extremely low in

developing countries,¹⁸ and knowledge among immigrant women in the Western world is equally poor.¹⁹ In Africa, although knowledge about cervical cancer has generally been linked to education and socioeconomic status,^{16,20-22} a survey of well-educated women¹⁰ revealed a lack of adequate knowledge of the disease or a lack of perceived personal risk of getting cervical cancer.²³ Nonetheless, cultural beliefs about cervical cancer also contribute to low screening rates. Many of the rural South African women surveyed by Lartey et al.¹⁷ and others²⁴ felt that screening is unnecessary when a woman does not feel ill. Certain ethnic groups, including Latina,²⁵ Korean American,²⁶ and African American women,²⁷⁻²⁹ may be more likely to entertain fatalistic beliefs about cancer, preventing them from seeking appropriate preventative care. Similar to women in South Africa,²⁴ women in Botswana reportedly viewed cervical cancer as a disease that “eats the inside of a womb,” and associated hysterectomy with loss of sexual pleasure, divorce, and failure to get a husband.¹⁶ To therefore eliminate access barriers and educate women about the fundamental need to get screened, it is crucial to identify how the combination of these factors influences women’s screening behavior.

In this article, we report on a survey that investigated access to and knowledge about Pap smears and cervical cancer in a peri-urban community in Cape Town, South Africa. Along with other local agencies, we were approached by the Cancer Association of South Africa to participate in outreach activities on World Cancer Day celebrated on February 5, 2005. Events included free cancer screening tests for women and men at the local clinic, cancer support groups, a press conference, and an open community event featuring various speakers at the local sports ground. The community in which we administered the survey is 1 of the few in South Africa where Blacks and Coloreds are integrated. (Although the Population Registration Act of 1950, which authorized registration by race, was repealed in 1991, our use of these racial categories reflects the historical background of participants, their continued attempts at self-identification, and the remaining legacy of apartheid. “Black” refers to indigenous people of South Africa who speak 1 of the Bantu languages as their native language. “Colored” refers to people considered to be of mixed race, classified as such by the former apartheid government of South Africa.) We used this health promotion event as an opportunity to administer a survey designed to obtain local data on knowledge, attitudes, and access issues related to Pap smears and cervical cancer. This information is critical in enhancing the development of effective screening programs for urbanized, resource-poor communities.

MATERIALS AND METHODS

Instrument Selection and Design

The development of this survey was partly informed by previous work on attitudes and beliefs about cervical cancer,^{24,30} which included items that measure feelings of embarrassment, fatalistic beliefs, and attitudes toward general prevention behavior. There were 12 close-ended and 4 open-ended questions (16 total). The close-ended questions assessed prior history of having a Pap smear, reasons for not having a Pap smear, and attitudes toward Pap smears. The open-ended questions asked participants to specify (1) what a Pap smear was, (2) the reasons that may have prevented them from obtaining a Pap smear in the past, (3) why they decided to have a Pap smear, and (4) how they heard about the free screenings. Prior to survey administration, we tested the questions with 6 community residents to ensure comprehension and cultural sensitivity. Staff at the Cancer Association of South Africa also reviewed the questions and provided feedback.

We hired an ethnically and linguistically diverse team of 5 community members to administer the survey. We received formal approval from our local institutional review

board to conduct the survey. The surveys were professionally translated into, and administered in, the native language of the participant (English, Afrikaans, or Xhosa).

Sample

We administered the survey to separate samples drawn from 2 events on World Cancer Day. We interviewed 228 women, 156 at the local clinic and 72 at the community event. No incentive was offered to participants. The first cluster was approached by interviewers at the clinic while they were waiting in line to be registered for the free cancer screening. Eligible women had to wait in line to receive their screening test. We administered our surveys during a 3 hour waiting period. Of those women asked to participate in the survey, 90% agreed. Most respondents surveyed at the clinic were Colored (63%) and 34% were Black.¹ The second sample was drawn from those who attended the open community event on cancer prevention. Of those who attended the community events, 56% were Black and 44% were Colored.

Data Analysis

Descriptive statistics were performed on the survey data to identify the distribution of answers to each question. We used SPSS version 12.0 for the quantitative analyses. We examined (1) Pap smear knowledge and history; (2) attitudes and beliefs about Pap smears, cervical cancer, and prevention; and (3) barriers to obtaining a Pap smear. When differences are statistically significant, we report the data for the clinic and community sample and for Blacks and Coloreds separately.

For the open-ended questions, we developed coding categories that captured the key themes. Responses were first discussed and grouped into similar clusters. Next, we defined these categories into more specific groupings and pretested this coding pattern. Based on these results, changes were made to the categories. A final test of the codes was performed, and there was 98% agreement between the coders.

RESULTS

A total of 228 women participated in this study. Most of the women (57%) answered the questions in Afrikaans (n = 129), 39% in Xhosa (n = 89), and 4% in English (n = 10). Most of the women interviewed identified as Colored (59%) or Black (41%). The average age reported for the sample was 42 (median = 41; SD = 11.5). The age of the clinic women averaged 42 years (SD = 10.9; range, 20-71), and the women interviewed at the community event averaged 43 years (SD = 12.7; range, 21-84).

Pap Smear History and Knowledge

Table 1 presents the Pap smear history, knowledge, access barriers, and attitudes and beliefs in the total sample and in clinic and community participants separately. Table 2 summarizes those questions that had significant differences in Colored and Black women's responses.

Pap Smear History—More than one third of women (34%) reported that they had never had a Pap smear, although 22% of the sample said their last Pap smear was more than 10 years ago. Of the 77 (34%) women in the combined sample who never had a Pap smear, the average age was 39.5 years (median = 37; SD = 13.4). Moreover, most (68%) of those who never had a Pap smear were Black ($\chi^2_1 = 32.8, P < .001$).

Pap Smear Knowledge—We asked all women in the study (N = 228) through a close-ended question if they knew what a Pap smear was. Most of the clinic (63%) and community participants (71%) were knowledgeable about a Pap smear (see Table 1).

Of those who knew what a Pap smear was, 22% explained in an open-ended question that it was to check if something was wrong with the womb. However, others said that a Pap smear was to test for cancer (22%), that it was preventive and important for the maintenance of women's health (15%), or that they associated a Pap smear with pregnancy (4%).

A Pearson χ^2 test indicated that having had a Pap smear in the past was strongly correlated with knowledge about Pap smears ($\chi^2_X = 112.9$, $P < .001$). Furthermore, more Colored women than Black women knew what a Pap smear was ($\chi^2_1 = 15.9$, $P < .001$; see Table 2).

Access

We asked close-ended questions about barriers to obtaining a Pap smear related to wait time, child care, and clinic access. Among all of the participants, more than half (54%) agreed with the statement, "One has to wait too long to get an appointment before you can get a Pap smear," and over one third (34%) indicated that they not know where to go to have a Pap smear (see Table 1).

Through an open-ended question, we asked participants to explain what may have prevented them from obtaining a Pap smear prior to the opportunistic screening event held in their community. Most women (59%) said that there was no particular reason that prevented them from having a Pap smear in the past. Others (16%) cited personal reasons, such as fear or being very busy. Some (12%) said that the South African policy of waiting for 10 years⁷ between Pap smears prevented them from obtaining one earlier, whereas others (9%) said that access issues, such as wait time or inability to pay, and family reasons, such as taking care of children, made it too difficult.

A Pearson χ^2 test (categorical by categorical) determined that clinic (63%) and community (36%) participants differed significantly in their answers to the question regarding wait time ($\chi^2_X = 14.3$, $P < .001$), as did Colored (69%) and Black (33%) women ($\chi^2_X = 28.3$, $P < .001$). However, more Black (52%) than Colored women (22%) agreed with the statement, "I did not know where to go to get a Pap smear" ($\chi^2_1 = 21.0$, $P < .001$; see Table 2).

Attitudes and Beliefs

Both groups were asked 6 close-ended questions regarding their attitudes and beliefs about Pap smears and cervical cancer. Slightly more than half (52%) agreed with the statement, "If I am meant to get cervical cancer, I will get it—that is fate." Yet, only 17% reported, "I am afraid of hospitals/clinics," and "It's embarrassing to get a Pap smear" (see Table 1).

We used the Pearson χ^2 statistic to determine differences between Coloreds and Blacks on attitudes and beliefs about cervical cancer. Significantly, more Colored than Black women reported that "It's embarrassing to get a Pap smear," and "I'd rather not know if I have cervical cancer" ($\chi^2_X = 24.3$, $P < .001$; $\chi^2_X = 11.5$, $P < .001$, respectively). However, almost half of the Black women (49%) said "I don't like to be examined by the doctor," whereas only 36% of Colored women agreed with that statement ($\chi^2_1 = 4.0$, $P = .045$; see Table 2).

Sources of Event Information

Finally, participants indicated that they had heard about the World Cancer Day events from a variety of sources. Most (46%) heard from staff at the clinic. Others (13%) learned about it by written materials, such as flyers, posters, or local newspapers (13%); word of mouth from neighbors, family, and friends (13%); community activities (12%); radio (6%); bullhorn announcements (5%); and schools (4%).

DISCUSSION

In this study, we examined the knowledge, access barriers, and beliefs related to Pap smears and cervical cancer of women attending cancer awareness events in a peri-urban community in Cape Town, South Africa. As part of the day's activities, 175 women were able to receive a free Pap smear at the local health clinic, and many attended an open community event on cancer education. At both the clinic and community events, we surveyed a total of 228 women. The strong attendance at both these events could be an indication of the openness of women in this community to health outreach efforts as well as their compelling need for cancer education and accessible preventive services.

Particularly relevant given the high cervical cancer incidence in South Africa is that at least half of study participants have never had a Pap smear or had one more than 10 years ago. In addition, knowledge about Pap smears and cervical cancer prevention in this community appears far from optimal. One third of the total sample did not know what a Pap smear was, whereas others interpreted a Pap smear as a method for "cleaning of the womb." This finding is consistent with other studies that many South African women construct cervical cancer in nonmedical terms and rarely use the term *cervix* in reference to cervical cancer.²⁴ However, several women in our study reported knowing that the Pap smear was a test for cancer or that it was preventative and important for the maintenance of women's health. Certainly, this finding has important implications for cancer education efforts in that it suggests that some women in this community are thinking of preventing illness as a first step instead of waiting for illness to occur and then treating it.

In addition, the fatalistic attitudes and beliefs regarding cervical cancer screening resonate with previous findings on fatalism and cervical cancer in the South African^{24,31} as well as US³²⁻³⁴ contexts. Our data add to this scenario the possibility that fatalism is only part of the picture: Despite some suggestions from surveyed participants that "nothing could be done" if they developed cancer, many women in our study were still proactively seeking a Pap smear and waiting in line for several hours to obtain it. Although fatalism is often associated with passiveness and lack of interest in health care,^{26,35} our data suggest that the issue could be more complex. This is especially encouraging to cancer education efforts in resource-poor settings. It suggests that the apparent incongruence in belief and subsequent behavior might suggest that fatalistic attitudes may be more of an expression of access issues and other obstacles rather than an unwavering belief about cancer prevention or a lack of desire or capacity for proactive health care.

Our study findings also point to the legacy of apartheid in shaping the differential knowledge levels and access to resources between Blacks and Coloreds. Fewer Black women knew what a Pap smear was, had a Pap smear previously, knew that it was necessary to have a Pap smear, or knew where to obtain a Pap smear. These differences most likely reflect that Blacks are more recently urbanized than Coloreds, tend to frame female and other disorders in more traditional and not biomedical vocabulary,²⁴ and may have fewer resources and less time available to access health care. Interestingly, though, more Colored women said it is embarrassing to have a Pap smear and that they would rather not know if they had cervical cancer. Consequently, there is a great need for cancer education and prevention in South Africa to account for, and respond appropriately to, these differences and overall access barriers, attitudes, and beliefs about Pap smears and cervical cancer.

Nevertheless, that so many women were present to obtain free Pap smears and learn about cancer has positive implications for opportunistic cancer interventions. For example, whereas 63% of clinic participants reported that "One has to wait too long to get an appointment before you can get a Pap smear," only 36% of community participants did. This

most likely suggests that those women who previously had trouble obtaining a Pap smear appointment took advantage of the free screenings that day and were thus more represented in the clinic group. Second, the strong attendance suggests that these women may be receptive to cancer education and willing to act on it. Third, it may suggest that even women with alternative constructions of cancer may hold positive attitudes toward cancer prevention. Fourth, and perhaps most important of all, our study findings suggest that cancer screenings for low-income women may need to be promoted within the broader context of women's health. It is likely that if outreach efforts are focused on only cancer screening, they will appeal to a different audience than efforts aimed at addressing women's general health. More women are likely to respond and benefit from integrated health outreach efforts and in this way, allay their cancer-related fears and uncertainties in a broader health context.

Ideally, women from low-income and resource-poor communities can obtain Pap smears through opportunistic events such as World Cancer Day. Certainly, this screening is the first step to preventing cervical cancer. However, it is essential to question what happens *after* these women obtain a Pap smear. What if their results are abnormal? What if they need treatment? Future research and future screening programs must focus not only on reaching underserved women but also on processing Pap smears, returning results as rapidly as possible, having an efficient means of follow-up and referral for patients, creating and designating treatment centers that can provide treatment for early lesions, and creating a system that deals with women with advanced disease.³⁶

Additionally, cervical cancer prevention programs and future research need to address the complexities of what women may mean by responses such as, "No reason prevented me from obtaining a Pap smear." One possible explanation is that the survey administration setting (the waiting lines) did not lend itself to obtaining more detailed and nuanced information from participants on this issue. The data could also simply mean that the main reason why these women did not get a Pap smear before is that they were not aware that it was in their best interest to do so or that they could not think of anything else to say. Future studies also need to include women who do not participate in cancer education events such as World Cancer Day, as they perhaps represent a cluster most in need of cancer education and screening.

Finally, the direction for future cancer outreach efforts in this community is indicated by the fact that most clinic women in our study learned of the screening event from clinic staff. This may suggest that many of these women or their family members had received other services at the clinic. At the very least, it suggests that the clinic staff have community influence and credibility. The importance of social networks³⁷ and the influence of significant others to increase a woman's likelihood to obtain screening has been noted elsewhere.¹³ Furthermore, other sources such as family, media, and direct marketing efforts indicate the potential and impact of using multiple informants in outreach and cancer education efforts.

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Table 1

Clinic and Community Responses

Participant	Clinic (n = 156)	Community (n = 72)	Total (N = 228)
Pap Smear History			
I have had a Pap smear before today	66%	65%	66%
Pap Smear Knowledge			
I know what a Pap smear is	63%	71%	67%
Access Barriers			
One has to wait too long to get an appointment before you can get a Pap smear	63%	36%	54% *
I did not have anyone to watch the children while I go to the doctor for a Pap smear	18%	14%	17%
I did not know where to go to get a Pap smear	32%	39%	34%
Attitudes and Beliefs			
If I am meant to get cervical cancer, I will get it- that is fate	55%	45%	52%
I don't like to be examined by the doctor	44%	35%	41%
I am afraid of hospitals/clinics	18%	13%	17%
It's embarrassing to get a Pap smear	19%	13%	17%
When I am feeling healthy, I do not need to get a Pap smear	35%	39%	36%
I did not know it was necessary to get a Pap smear	34%	39%	31%
I'd rather not know if I have cervical cancer	28%	18%	25%
I cannot do anything to prevent cervical cancer	32%	23%	29%

* There was a statistically significant difference between clinic and community participants $\chi^2 = 14.3$, $df = 1$, $p = .001$.

Table 2

Responses by Ethnicity

Participant	Colored (n = 135)	Black (n = 93)	Chi-square	Degrees of Freedom
Pap Smear History				
I have had a Pap smear before today	81%	44%	$\chi^2 = 32.8^*$	df = 1
Pap Smear Knowledge				
I know what a Pap smear is	77%	52%	$\chi^2 = 15.9^*$	df = 1
Access Barriers				
One has to wait too long to get an appointment before you can get a Pap smear	69%	33%	$\chi^2 = 28.3^*$	df = 1
I did not know where to go to get a Pap smear	22%	52%	$\chi^2 = 21.0^*$	df = 1
Attitudes and Beliefs				
It's embarrassing to get a Pap smear	27%	2%	$\chi^2 = 24.3^*$	df = 1
I'd rather not know if I have cervical cancer	33%	13%	$\chi^2 = 11.5^*$	df = 1
I don't like to be examined by the doctor	36%	49% [†]	$\chi^2 = 4.0$	df = 1

* Statistically significant difference at the $p < .001$ level.

[†] Statistically significant difference at the $p = .05$ level.