African Journal for Physical Activity and Health Sciences (AJPHES) Volume 24(4), December 2018, pp. 579-596.

Perceptions and attitudes of rural women in Matebeleng, Limpopo Province towards cervical cancer

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(Received: 3 May 2018; Revision Accepted: 25 September 2018)

Abstract

Cervical Cancer is a global concern and the most common cancer among women in many less developed countries where there is inadequate access to information and quality screening programmes. In South Africa alone, 6742 infections and 3681 deaths were recorded in 2014. The spiral increase of this disease in low-resourced areas is aggravated by some socio-economic, cultural and structural factors. The study, which explored the knowledge and attitudes of ruralbased women towards cervical cancer, was conducted at Matebeleng village in Limpopo Province. A qualitative exploratory case study was conducted, and self-reported data was collected from 22 women. Two focus groups consisted of seven (7) and eight (8) participants, and six (6) face-face individual interviews were held using a semi-structured interview guide. Data was analysed thematically. The research findings show that the majority of women in Matebeleng village have no knowledge of cervical cancer, and only very few received some information of this disease through radio, health clinic, random women, and consent forms from the school. Participants highlighted some of the risk factors, but some information was incorrect. The findings showed that a few participants had only been screened once, and that the majority have never been tested for cervical cancer. Those who were screened never received feedback from nurses, and their experiences did not motivate re-screening. It is, therefore, recommended that cervical cancer outreach programmes be conducted in rural areas, and that methods of disseminating information to rural women in their distinct contexts be examined.

Keywords: Perceptions, attitudes, rural women, cervical cancer.

How to cite this article:

Kwakwa, M.M. & Makhubele, J.C. (2018). Perceptions and attitudes of rural women in Matebeleng, Limpopo Province towards cervical cancer. *African Journal for Physical Activity and Health Sciences*, 24(4), 579-596.

Introduction

Cervical cancer is a global concern. Menon (2011), Moodley (2009) and Kamangar et al. (2006) confirmed that it is the second most common female cancer worldwide, and the most common cancer among women in many less developed countries where there is inadequate access to quality screening programmes. The mortality cases of the disease is about 50% worldwide (Moodley, 2009). In South Africa, it remains the most common cancer among black African women (Ferlay et al., 2010; Jemal et al., 2011). As many as 7,700

women in the country are diagnosed with the disease each year, and more than half will ultimately die (Richter, 2015). Denny (2015) cited 6742 infections and 3681 deaths, affecting not only women, but also their children, families and communities (Hoque et al., 2008; Sitas et al., 1998). Unfortunately, South African Cancer Registry lacks provincial statistics for cancer of the cervix. In the year 2000, the government released a national policy on organised cervical screening in order to offer all asymptomatic women aged 30 years and older three free cervical smears in a lifetime, ten years apart, to detect the disease at its early stages, and thereby promote successful treatment (South African National Department of Health, 2000; Moodley et al., 2006).

This is a valuable prevention strategy, but the challenge is that women who are 50 years and older, excluding those who can afford private care and who have never been tested before, have only one chance of being screened for cervical cancer, and if they present themselves for the test late, their chances of survival are limited. This is likely to be applicable to Matebeleng community as women in the village hardly consult for cervical cancer screening. They intermittently consult when the mobile clinic visits their community for other pressing health concerns. This view is supported by Moodley (2009:12), who asserts that, "in reality, most patients in developing countries present in advanced stages of cervical cancer when the symptoms of abnormal vaginal bleeding or an offensive discharge become a personal and social problem".

Problem statement

The researchers believe that knowledge and awareness of risk factors by women in developing countries especially in remote rural communities, is a crucial departure point in fighting cervical cancer. Adequate knowledge provision and awareness raising activities on cervical cancer may inform their susceptibility and therefore encourage them to take precautions. Kent (2009:141) reported that "screening tests show that the seriousness of cervical cancer is recognised and the success of screening programmes is acknowledged and the impact of the disease has decreased". Nonetheless, more women particularly in rural areas and with high level of illiteracy are the victims of undiagnosed and untreated health conditions.

Despite being a preventable disease, cancer of the cervix is still the second most common cancer in women worldwide. Furthermore, Menon (2011) argues that prevention of cervical cancer in areas that is highly prevalent, like in developing countries is the result of inadequate national health care infrastructure that cannot establish or sustain comprehensive screening programmes. She further states that the gap is not a technological one, but it is a gap of political will and resource management, as cervical cancer needs more attention and funding. Cervical cancer screening policy has not been widely implemented and the majority of South African women are not screened at all (Snyman & Herbst, 2013), especially the rural women in Matebeleng community. Consequently, in spite of best policies, the cultural values and practices such as the risk of multiple sexual partnership and early sexual debut upheld by this community towards health care prior to this study, were characterised by apathy and ignorance. Therefore, the aim of the study was to explore the perceptions and attitudes of rural women in Matebeleng community towards cervical cancer, focusing on risk factors, screening tests and the human papillomavirus (HPV) vaccines.

Methodology

Study design

An exploratory qualitative design was used in this study. Research is usually conducted for three purposes: to explore, describe and to explain a phenomenon (Babbie, 2007). Therefore, exploratory research seeks to fulfill the researcher's quest to understand a particular phenomenon in-depth by testing whether it is feasible for an extensive study, and to develop new methods to employ in the study, or to explicate the main theories and concepts in order to set priorities for future research (Babbie & Mouton, 2001). This research was carried out using a case study approach in which a sample of 22 women from a remote village of Matebeleng was studied. Matebeleng village is locatedabout 30km south of Polokwane in Limpopo Province. This village represents a grim picture of poverty with only about 47 households (Masombuka, 2014).

Study setting

Matebeleng is a rural community situated in Mokopane in Mogalakwena Municipality of Limpopo Province, South Africa. Mogalakwena Municipality.is situated in the western quadrant of Limpopo Province, within the western district of the Waterberg Municipality, and is bordered by Aganang to the east, Mookgopong to the south, and Lephalale to the north. The breathtakingly beautiful Makapans Valley, commonly known as Matebeleng in the Limpopo Province, is one of the world's most important paleontological sites.

Matebeleng community is a small remote and neglected rural community just outside Mokopane (previously known as Potgietersrus). This community lacks essential needs like water, toilet system of any kind, electricity, and reasonable or standard housing like the well-known RDP (Rural Development Programme) houses. The inhabitants of Matebeleng were assumed to be Ndebele originally, but were later joined by Northern Sotho and Vatsonga speaking people. Currently, Northern Sotho is predominantly spoken in the area. Therefore, sociocultural values, norms, mores, customs and practices are not unique to any cultural group among the inhabitants of Matebeleng.

Study population and sampling

According to 2011 census statistics, the population of Mogalakwena Municipality stands at 307,682 and only 47 households were found in this village (Masombuka, 2014). By the time of this study, there were no official statistics from Statistics South Africa on Matebeleng village. The village has only grown to 52 households to date. Considering that Matebeleng village has affordable and manageable population, the researchers decided to include all women who were twenty-two (22) between the age 35 and 55. Since 22 women were involved in the study, two focus group interviews of seven (7) and nine (9) participants were carried out at a secure place, and six individual interviews were conducted during the mobile clinic visits using the consultation room just outside the school premises.

Data collection

Two techniques of data collection were used namely, individual and focus group interviews. A semi-structured interview guide was also used to collect data. The interview guide was based on the following main question: What are the perceptions and attitudes of rural women in Matebeleng towards cervical cancer, focusing on risk factors, screening tests and the HPV vaccines? The following principles guided the researchers in developing the interview schedule:

- What to say to interviewees (rural women) when setting up the interview (aim and objectives of the study);
- What to say to interviewees (rural women) when beginning the interview, including ensuring informed consent and confidentiality of the interviewees (ethical considerations);
- What to say to the participants in concluding the interviews (appreciation for the information and time spent together);
- What to do during the interviews (sensitised the participants and requested them to take notes and audiotaped the interviews);
- What to do following the interviews by summarizing key information, and
- Developed a semi-structured interview guide that lists the questions or issues to be explored during the interview (included an informed consent form).
- It was necessary that the semi-structured interview guide be translated to local language and the translation was tested (semi-structured interview guide translated to Northern Sotho from English and back translated from English to Northern Sotho to ascertain that meaning is not lost in the process of translation).

This procedure is supported by Gall, Gall and Borg (2003), as well as Turner III (2010) who avowed that participants are always asked identical questions, but the questions are worded so that responses are open-ended. This open-endedness

Perceptions and attitudes of rural women towards cervical cancer 583

allows participants to contribute as much detailed information as they desire and it also allows the researcher to ask probing questions as a means of follow-up. Each woman was contacted before the focus-group meetings with the researchers were scheduled. Six rural women participated in the individual interviews. Silverman (2002) averred that interviews are believed to provide a deeper understanding of social phenomena than could not be obtained from purely quantitative methods, such as questionnaires. Interviews are also particularly appropriate for exploring sensitive topics, where participants may not want to talk about such issues in a group setting (Gill et al., 2008). The purpose of the individual interview was to explore the perceptions and attitudes of rural women towards cervical cancer and its risk factors.

Regarding focus group interviews, two meetings, one consisting of 7 participants and the other having 9 participants were held to collect data. All two focus-group meetings were held in secure environments at Matebeleng community. The discussions were audio-taped, transcribed verbatim by the lead author and moderated by the second author. Each focus-group interview lasted approximately 90 minutes. The aim of the interviews was to explore the perceptions and attitudes of rural women of Matebeleng towards cervical cancer, focusing on risk factors, screening tests and the HPV vaccines.

It was of interest to the study to assess the knowledge of rural women about cervical cancer andtest their understanding of the risk factors associated with cervical cancer including HPV as well as the fact that it isspread through sexual practices (oral, vaginal and anal). Also, the researchers wanted to find out rural the women's awareness of available cervical cancer screening tests and HPV vaccine. Hence, individual interviews and focus-group interviews were chosen as viable the data collection methods. Gill et al. (2008) and Kvale (1996) further posit that wherever possible, interviews should be conducted in areas free from distractions and at times and locations that are most suitable and familiar for participants which may help them to relax and result in a more productive interview. Similarly, the venue for a focus group is important and should, ideally, be accessible, comfortable, private, quiet and free from distractions (Bloor et al., 2001). Therefore, when using the focus-group method, it is essential to facilitate a safe environment for the participants, so that they could feel comfortable, easily participate in the interview and express themselves freely.

After sharing their personal information (age, education, and duration of employment), each group member was asked to share their knowledge about cervical cancer and reflect on their responses, as well as what they found to be important in their responses. The researchers followed up the responses and initiatives, trying to make participants in both the individual and focus-group interviews elaborate on their explanations and descriptions, for instance by asking: "You said 'cervical cancer is not for Africans women'. Could you give an

example of what informs that?" Or when a participant stated that: "the reasons that persuaded her to attend the clinic were the pain that she felt in her reproductive organs during sexual intercourse, and the professional nurse at the clinic advised her also to screen for cervical cancer." Participants were asked questions like, "Could you try to elaborate on this further?"

Data analysis

Qualitative data were analysed through the thematic content analysis technique (O'Leary, 2014). The raw data from interview transcripts, field notes and recordings were coded, and themes were developed so that meanings could be interpreted and conclusions made. These themes and meanings included knowledge and perceptions. The process of reflective qualitative analysis requires researchers to: a) organise their own raw data; b) enter and code that data; c) search for meanings through thematic analysis; d) interpret meaning; and e) draw conclusions (O'Leary, 2014). The constant comparative coding method was also utilised, which is a manual coding of themes for an audit trail. An audit trail allows co-researchers and, later, researchers, to check the process used by the researcher to arrive at her findings and conclusions (Struwig & Stead, 2013).

Ethical considerations

Permission to conduct the study: Permission to conduct the study was granted by the University of Limpopo Research Ethics Committee (Ref.: TREC 66/2016: PG) and informed consent was obtained from all participants before the interviews were conducted. The researchers needed to protect the participants, gain their trust, promote the integrity of the research, guard against misconduct and impropriety that might reflect on their institution, and through ethical considerations, cope with new, challenging problems to ensure that the participants involved were not harmed because of the research activity (Creswell, 2009:87). In this study, the following ethical considerations were applicable:

Avoidance of harm: The essential ethical rule of social research is that it must bring no harm to participants (Strydom, 2011). This study did not bring any harm, or pose unreasonable risks to the participants and was implemented in accordance with the fundamental ethical obligations to safeguard the physical, psychological and emotional wellbeing of the participants (Neuman, 2011). The researchers articulated the purpose of the research in a coherent manner to the selected participants before the interviews were conducted. Effective debriefing was also carried out after the interviews to determine whether or not the process had been emotionally painful. None of the participants showed any signs that warranted further intervention by either social workers or psychologists. *Voluntary participation and informed consent:* Participation in this study was voluntary at all times and no one was forced to participate in the project (Strydom, 2011). The researchers obtained written permission (informed consent) from the participants to conduct the research. They carefully and clearly explained the purpose of the research to the participants, and were informed that they were under no obligation to take part in the study, and they could withdraw at any stage of the research without consequences.

Violation of privacy/confidentiality: Every participant had the right to privacy and anonymity. Confidentiality was assured in the signed agreement between the researchers and the participants.

Actions and competence of researchers: The researchers ensured that their actions were ethical in that they were honest, competent and conducted the study professionally. Researchers are qualified social workers and social work educators.

Results

Demographic information

Age:

The participants were all black Africans, whose ages ranged from 35 to 55 years, with an average age of 46 years. This age group was selected because of its susceptibility to the cervical cancer disease. The World Health Organization (2015), suggests that cervical cancer is rarely seen in women less than 20 years of age. It is mostly diagnosed in middle-aged women with half of those between 35-55 years of age.

| Table | 1: | Age | of | part | ici | pants |
|-------|----|-----|----|------|-----|-------|
|-------|----|-----|----|------|-----|-------|

| Age of participants | Number of respondents | Percentage (%) |
|---------------------|-----------------------|----------------|
| 35 - 40 | 7 | 31.8 |
| 41-50 | 6 | 27.2 |
| 51-55 | 9 | 40.9 |

Educational status:

Results presented in Table 2 showed that the majority of women, or eighteen of them, had lower educational status (lack of high school education), only two had high school education and the other two had no formal education at all.

Due to poverty and lack of education, the prevention and treatment of cervical cancer are a challenge, especially in rural communities (Moodley et al., 2006).

Women who cannot read and write are likely not to benefit from media information that is usually displayed and disseminated in English; a factor indicated earlier in this study. In addition, the majority of the women in the village have have very limited access to media information.

| Level of education | Number of participants | Percentage (%) | |
|--------------------|------------------------|----------------|--|
| Grade $1 - 4$ | 9 | 40.9 | |
| Grade $5-8$ | 9 | 40.9 | |
| Grade 9 – 12 | 2 | 9.0 | |
| Other | 2 | 9.0 | |

 Table 2: Educational status of participants

Years residing at Matebeleng Village:

All the participants (100%) were born and bred in Matebeleng village, a small rural poor community just outside Mokopane. The community lacks basic needs like water and toilet system of any kind (Table 3). This factor assisted the study in determining the authenticity of the baseline information and the uniqueness of the experiences of women in this remote village over a long period.

Table 3: Participants' years of residence at Matebeleng village

| Table 5.1 articipants years of residence at waterbeing vinage | | | | |
|---|------------------------|----------------|--|--|
| Years of residence | Number of participants | Percentage (%) | | |
| Less than 5 years | 0 | 0 | | |
| Between $5 - 10$ years | 0 | 0 | | |
| Between 10 – 15 years | 0 | 0 | | |
| Between 15 – 20 years | 0 | 0 | | |
| More than 20 years | 22 | 100 | | |

Marital status:

Some studies that attempted to establish how women became infected with HPV and their susceptibility used marital status as a variable. This study explored the rural women's knowledge and attitudes towards the disease irrespective of their marital status because it is common knowledge that marriage does not necessarily protect women from sexually transmitted infections. Results on the participants' marital status are provided in Table 4.

Table 4: Marital status of the participants

| Marital Status | Number of participants | Percentage (%) | |
|----------------|------------------------|----------------|--|
| Single | 12 | 54.5 | |
| Married | 7 | 31.8 | |
| Divorced | 0 | 0 | |
| Widowed | 3 | 13.6 | |

Employment status:

Table 5 indicates a high unemployment rate among women in the Matebeleng community. Only three participants out of twenty-two were employed, coupled with lack of education and poverty. These factors are known to affect knowledge and awareness of cancer of the cervix in that older and illiterate women who were less likely to avail themselves for screening due to insufficient information and financial constraints (Maree, 2007; Kamphinda-Banda, 2009; Aswathy et al., 2012; Asthana & Labani, 2013). The women in this community have little opportunity of engaging with other women elsewhere as their movement is restricted by lack of transport, financial constraints and are generally isolated.

Table 5: Employment status of the participants

| Employment status | Number | Percentage (%) |
|-------------------|--------|----------------|
| Employed | 2 | 9.0 |
| Unemployed | 19 | 88.3 |
| Self-employed | 1 | 4.5 |

Qualitative data analysis

The researchers completed this step by transcribing interviews, optimally scanning materials, typing up field notes, as well as sorting and arranging the data into different types, depending on the sources of information (Creswell, 2009:185). Data were reduced by identifying the main themes and linking the ideas and beliefs of the participants with factors that contribute to knowledge and awareness, susceptibility, vaccine to prevent HPV, attitudes towards cervical cancer screening and screening programmes offered by government.

Theme 1: Level of knowledge and awareness of cervical cancer

Sub-theme: Cervical cancer information and source

Seven participants indicated that they did not have full information about cervical cancer but had heard about it and twice as many said they had no knowledge of the disease. Only very few women had heard about it from the nurses at the local clinic or mobile clinic. Two women had heard about cervical cancer on the radio, and another two had heard about it on an encounter with other women as they were queuing for child grants. One of those who had heard from the radio indicated that the information was far from comprehensive:

"I was busy with household chores and I slightly heard on the radio about cervical cancer. I cannot remember fully what they said, but that it is a women's disease".

Another participant stated:

"If I remember well, they just mentioned it but they were focusing on cancer of the womb (uterus), and that women should get tested to check if they have it or not".

These comments indicate that the radio is a useful method of disseminating information to most rural communities where there is no electricity and access to other forms of print and electronic media. In fact, radio has been reported as the main source of cervical cancer information for underserved populations in Tanzania, and that there was a strong association between listening regularly to the radio and screening attendance (Perng et al., 2013).

One of those whose source of information was the clinic reported that though the reason that persuaded her to attend the clinic was the pain that she felt on her reproductive organs, the clinic sister advised her also to screen for cervical cancer. Specifically, she stated as follows:

"That is when and where I learned that feeling pain during intercourse, painful feet and menstruation in older women can be symptoms of cervical cancer".

This finding supports the value of opportunistic education concerning cervical cancer to clients by health care workers in health settings, and emphasises the fact that this could be a significant strategy. This also supports that media information is not always adequately designed for women of low literacy levels in such settings (Hoque et al., 2008). Evidently, the researchers have observed that information on cervical cancer is often invisible, displayed and illustrated in English in health settings, which is often a disadvantage to low literacy groups.

Theme 2: Susceptibility

Subtheme 2.1: Multiple partners

Only three participants responded that a woman with multiple partners is at risk of having cervical cancer. Another reported:

"This thing is like HIV/Aids then, because one also gets it by sleeping with many people".

Subtheme 2.2: Early sexual debut

Two participants indicated that having sexual intercourse at a young age could put a woman at risk of developing cervical cancer.

Subtheme 2.3: Chemicals

One participant indicated that the use of bath soaps could aggravate the risk of getting cervical cancer:

"... because these soaps contain chemicals which put women at risk of getting the disease, especially these perfumed ones".

Subtheme 2.4: Inflammation in the uterus

Another participant indicated that (*Sekgalaka*) inflammation and allergies in the womb could cause cervical cancer.

The above views concur with findings which noted that the majority of women from under-developed communities have a significant amount of incorrect information, and many of them know very little about cervical cancer. Also, previous studies have indicated that many women do not go for any screening due to lack of information and knowledge (Ndlovu, 2009; Aswathy et al., 2012; Asthana & Labani, 2013).

Theme 3: Vaccine to prevent HPV

Three participants indicated that they had heard about the HPV vaccine from their daughters when they were given consent forms at school:

"They were told that the forms were about the prevention of cervical cancer..., I tried to read, even though some parts of the text were difficult to understand".

Another participant further argued:

"I remember seeing those letters, HPV. I did not know what they really meant; I just signed for compliance because I trust the school".

The rest of the participants stated that they had never heard about the vaccination for the prevention of cervical cancer. It is reported that interactive communication (verbal interactive information sessions) rather than written communication, especially in low literacy level areas, may be a key strategy to improve parents' consent and understanding of the HPV virus (Botha et al, 2015). In this study, the parents were not invited to any pre-vaccination information session, only learners were given some explanation and consent forms for parents to sign.

Theme 4: Attitudes towards cervical cancer screening

Only three of the participants indicated that they were examined and received some explanation about the importance of testing even though they never received the results. All three participants were tested by chance when they visited the clinic for other concerns, but did not receive any feedback. All other nineteen participants highlighted that they had never been tested for cervical cancer. However, these discussions enlightened them to realise the importance of the test.

One participant reported: "I was never given the results, I did not ask for them, I expected them to give them to me during my next visit..., and the nurses should provide results as soon as they are available".

This finding highlights that in some African countries, it seems like health personnel do not counsel women about this serious disease, and those who get screened never return for feedback on their results. This is perpetuated by lack of follow up mechanisms (Moodley, 2009).

Subtheme 4:1: The process

In response to a question regarding the process of cervical cancer screening, one participant indicated:

"I was scared and uncomfortable, I did not know what had to happen, but I knew it was the right thing to do for my health's sake".

Another two participants alluded to the fact that the health professionals did not prepare and give them full and relevant information prior to being screened, hence their ambivalence. These findings emphasise the importance of communication strategy of nursing staff with women, and indicate the value of counselling before and after the test. In most cases, there is poor communication, poor feedback system and coordination between screening and treatment centres (World Health Organization, 2015). In addition, discussion of cervical cancer should form part of the routine talk between health workers and women whenever they visit health care settings (Ndejjo & Mukama, 2016). The challenge is that women in this village hardly visit the hospital or clinic because of distance, lack of transport and financial constraints. They simply await scheduled mobile clinics, which is very erratic.

One participant felt that health professionals should visit villages that do not have clinics to perform screening about three times in a year in order to reach out to more women. The researchers are of the opinion that at least once a year rather than three times is more practical due to the burden of other diseases on the

Perceptions and attitudes of rural women towards cervical cancer 591

health care system, and lack of resources as mentioned earlier in the study. Therefore, coverage rather than frequency is vital in the sense that if more women are screened, even if this occurs just once in a ten-year period, two thirds reduction in cervical cancer from the set goal can be anticipated (Denny, 2010). Furthermore, focus should be on factors that contribute to low coverage rates and follow up treatments for women with abnormal diagnoses to strengthen the screening programme in Limpopo province (Mamahlodi et al., 2013). *Subtheme 4.2: The procedure*

Three participants explained that during the screening, the discharge from the vagina is taken and then examined. Other two participants further reported they had heard that screening for cervical cancer is painful, while another four stated that the process is painful and walking becomes slightly difficult, as those who were screened before informed them. The other participant who had been screened before added: *"I would rather say it is a discomfort than pain"*.

Theme 5: Screening programmes offered by the provincial government

Five participants indicated that they had heard of the screening programmes on the radio; however, they believed that the programmes were not always accessible because they have never observed any such programme offered in their community. The rest of the participants reported that they were not aware of any government-operated programmes that deal with cervical cancer examination. The absence of an effective cervical cancer-screening programme in South Africa is another reason for low coverage, and for the majority of women not reporting for cervical cancer screening (Snyman & Herbst, 2013).

Subtheme: Willingness to avail oneself for screening

Most of the participants indicated that should the opportunity to be tested exist, they would gladly present themselves for screening even though they had heard that it is painful. They further reported their readiness to be examined so that the cancer could be diagnosed earlier, and provide the opportunity for treatment should they present with signs of the disease. The three previously screened participants indicated that they would still present themselves for another screening should it be made available.

Discussion

The present findings show that the majority of women in this rural area never heard of cervical cancer, and few received inadequate information. This finding is consistent with those of a study by Ferlay et al. (2000) which found that cervical cancer is the second most common cancer in women worldwide, and it is the principal cancer afflicting women in most developing countries, where 80

percent of cases occur. In our study, a few participants had some inadequate information about the risk factors of cervical cancer, and some of the information was incorrect. Very few of the participants had been screened only once and the majority never earlier tested for cervical cancer. Surptisingly, some of the women in the focus group heard about cervical cancer screening for the first time. A Malaysian study (Wong et al., 2009) confirmed that cervical cancer risk factors were highlighted by less than half of twenty respondents. Similarly, in Uganda, Mutyoba et al. (2006) found that even though respondents were medical workers, knowledge of risk factors for cervical cancer and details of screening activities were very low. In our study, the concerns of those who were screened included lack of feedback from the clinic nursing staff after the test (never got results) as well as inadequate preparation and information before being screened to allay the women's fears and doubts of the unknown. A few became aware of the vaccine when their children brought consent forms from school even though they did not exactly understand the content of these forms. The rest did not know anything about HPV vaccines, unlike in a Malaysian study (Wong et al., 2009) where all the participants were not aware of the risks posed by HPV infection and none of the respondents ever heard of HPV or knew about its association with cervical cancer.

The participants' sources of knowledge in the present study included the radio, health clinic and verbal information from other women. Potential sources of information in focus groups indicated the erratic visits of the mobile clinicscheduled monthly, and lack of information on cervical cancer even when it is available. An insignificant number of women had heard of cervical cancer outreach programmes for rural communities on the radio, but had never seen any in their community. A significant finding is the women's positive attitude and willingness to present themselves for screening despite negative experiences of those who have done so, and the idea that it might be a painful procedure.

Lack of information, knowledge and awareness of cervical cancer among women in rural areas is still a cause for concern. The women of Matebeleng village generaly lack knowledge and awareness of cervical cancer and have no idea of its relationship with HPV. Women can only avail themselves for screening if they understand the disease itself, how to prevent it and its treatment. Information and awareness of cervical cancer is still direly needed, especially in deep rural communities of South Africa taking cognisance of how that information has to be disseminated. It is essential that the methods and language that they rural people comprehend should be used, as suggested by Fylan (1998) who stated the importance of establishing ethnicity related causes for lack of participants in the village occurred by chance and their screening experiences did not motivate re-screening. This highlights the necessity and significance for prescreening counselling for women by the nursing personnel. Mutyoba et al. (2006) reported how in areas lacking systematic screening programmes, the expected norm would be to opportunistically screen suitable women when they visit health settings for other reproductive services or refer them to where screening could be done. Another challenge is that, generally, women of this village hardly visit the hospital or clinic because of distance, lack of transport and financial constraints. They rely on scheduled mobile clinics, which is not reliable. School health committees could take the opportunity of pre-vaccination awareness sessions with learners to include parents and to necessary provide education about cancer of the cervix. It has been reported in a previous study that the plan of the Limpopo Department of Health, in collaboration with other stakeholders, was to promote regular media campaigns to inform, educate and invite women at community level for screening (Mamahlodi et al., 2013). However, little is known about whether or not the plan was ever implemented elsewhere. Matebeleng is yet to benefit from the government's outreach programmes to promote screening and vaccination for the prevention of cervical cancer.

Conclusion and recommendations

The challenge of cervical cancer should not only be left in the hands of the health sector alone due to a large population in remote rural areas that still need to be accessed in terms of awareness, education and screening for cervical cancer. The modes of communication, capacity to carry out the task and means of collaborating with other sectors should perhaps become the focus in South Africa. Therefore, methods of disseminating information to rural women in their distinct contexts should be examined. Conventional traditional ways of reaching out to rural women could perhaps produce improved results through integrated approaches involving multi-sectoral teams in educating under-resourced rural communities. In order to attain the desired goals regarding cervical cancer screening, the following are recommendations:

1. South African indigenous languages and user-friendly materials should be ued to disseminate information on cervical cancer screening to low-literate rural population.

2. Involvement of traditional leaders who are still influential in rural communities should be solicited, specifically to gather and motivate women to receive health education at the "*Dikgoro/mesate*" (Traditional Headquarters).

3. Application of an integrated approach should be undertaken by the Provincial Departments of Health incollaboration with other stakeholders such as the Department of Social Development (targeting social workers in health settings and promoting public health Social Work), community development practitioners, community-based organisations, civil society and/or religious groups.

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Perceptions and attitudes of rural women towards cervical cancer 595

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