

## Women's Knowledge of Health Promotion in the Prevention of Breast and Cervical Cancer in Oshakati Health District, Namibia

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### Abstract

**Purpose:** The study aimed to explore and describe the knowledge of women regarding health promotion in the prevention of breast and cervical cancer. This study was carried out in the Oshakati district at the Intermediate Hospital Oshakati.

**Methodology:** A quantitative approach was used for this study. This approach was chosen in order to provide a comprehensive picture and understanding of the women's knowledge or awareness of health promotion in the prevention of breast and cervical cancer. The study population consisted of all women of child-bearing age, aged 15 to 49, in the Oshakati health district, that is, 41,985. The research sample was identified as 10% of the study population, thus numbering 419 respondents. The researcher personally distributed 419 questionnaires to every second woman of child-bearing age admitted to the Intermediate Hospital Oshakati.

**Results:** The findings indicate that awareness of information relating to breast and cervical cancer exists in Oshakati Health District. However, overall knowledge on the causes of breast and cervical cancer, risk factors for breast cancer and warning signs of cervical cancer was very poor. The findings also revealed that while many respondents were informed about breast self-examination (BSE) and had practised it, very few respondents acknowledged clinical breast examination (CBE) attendance once a year, or the use of mammography and sonar attendance as additional screening methods.

**Recommendations and Conclusion:** Based on the findings the study recommends that women should share information with their peers; in addition, radio should be used to disseminate such information as it is the most reliable source of information in the rural areas. Information, education and communication materials on the prevention of breast and cervical cancer should be developed and disseminated to the public. Women should be encouraged to develop a reading culture in order to increase their knowledge.

**Keywords:** awareness knowledge, women of child-bearing age, health promotion, breast and cervical cancer

### 1. Introduction

Cancer is a universal disease that affects people without regard to race, sex, socioeconomic status or culture. Cancer evokes deep fears of pain, suffering, dependence, disfigurement and death. Indeed, the fear of this disease is so strong that a person may delay examination and diagnosis in the hope that the symptoms and signs will disappear. This lapse in time between awareness of a problem and seeking medical attention can affect the impact of treatment and diagnosis (Young, Van Niekerk, & Mogotlane, 2009).

According to the study done in Southern Ethiopia by Aweke, Ayanto and Ersado (2017) on knowledge, attitude and practice for cervical cancer prevention and control among women of childbearing age, revealed that breast and cervical cancers are the leading cancers among women in developing countries, with estimated annual new cases of 882,900 and 444,500 respectively. More than 324,300 and 230,400 women die from these cancers every year. Thus, globally, the number of new cases and deaths from cervical cancer is projected to continue to rise 720,415 and 394,905 respectively in 2025 (Aweke, Ayanto, & Ersado, 2017).

Furthermore, the above study indicated that in Sub-Saharan Africa, 34.8 new cases of cervical cancer use be diagnosed per 100,000 women annually, and 22.5 per 100,000 women die from the disease. This figure is higher

when compared with 6.6 and 2.5 per 100 000 women, respectively, in North America. However, the marked differences can be described by low preventive health behaviours, which is seemingly indicates lack of applied knowledge in to practice, nevertheless this could be change preventive health behaviours. Furthermore, the differences can also be explained by lack of access to effective screening services that facilitate early detection and treatment (Aweke, Ayanto, & Ersado, 2017).

That is why Aweke et al. (2017) suggested in the same study that community awareness is very crucial in order to increase and promote knowledge regarding prevention of breast and cervical cancer. The study done in in Elmina, Southern Ghana on knowledge, practice and barriers towards cervical screening, by Ebu, Mupepi, Mate-Siakwa, and Sampsele (2014) revealed that 68.4% of the study participants had never heard about cervical cancer, which is seemingly indicating the lack of knowledge and awareness on breast and cervical cancer prevention (Ebu, Mupepi, Mate-Siakwa, & Sampsele, 2014).

In developing countries the most common forms of cancer in women are cervical, breast and stomach cancer (Ramos, 2005).

In Namibia, 607 cases of cervical cancer were diagnosed between 1995 and 2000. Most of these cases were referred for treatment at the Health Centres from all over Namibia. In the Oshakati health district, cervical cancer appears to be a bigger problem than breast cancer. During the 2004 calendar year – January to December – 111 patients were discharged, while 21 died. During the 2005 calendar year – January to December – the number of patients discharged with a diagnosis of cervical cancer had increased to 126 with 18 deaths in total. These figures indicate an increase in the incidence of cervical cancer (Obeidel, Mendelsohn, Lejars, Forster, & Brule, 2001).

In Namibia as a whole, breast cancer is the most prevalent form of cancer, with 331 new cases being reported in 2013 while 479 recorded in 2014. And cervical cancer, new cases of 234 were recorded in 2011, while in 2012 new cases of 266 were recorded. The Cancer Association of Namibia has been involved in cancer awareness-raising activities and in the provision of screening services in Namibia (MoHSS, 1995).

In most cases, the early detection of both breast and cervical cancer enables more effective treatment and a better prognosis for the patient. Unfortunately, women often lack important knowledge about breast and cervical cancer. This is a significant problem and vigorous health promotion should be undertaken to rectify the situation (Herron & Freeth, 2005).

Education on the prevention and early detection of breast and cervical cancer is part and parcel of primary health care. Although the shift from curative care to primary health care is clear, the knowledge of women in the prevention of breast and cervical cancer remains a problem in the Oshakati health district.

Health workers are expected to disseminate information to women on how to detect the early warning signs of breast and cervical cancer and to attend screening sessions in this regard. Several supportive health facilities have been created that make women's health choices easier and more feasible. For instance, ante-natal care services have been rolled out to most areas of Namibia. At primary health care screening areas in the Oshakati health district, women can be screened and their reproductive health assessed. Pap smear tests are also provided. However, it is not clear how this information is disseminated to women or, if such information reaches them, they are able to deal with it in relation to their own health.

Access to facilities is also a problem in Oshakati health district (Gosschalk & Carozza, 2009). The Namibian Ministry of Health and Social Services (MOHSS, 1992) also confirms that "inadequate access to health care has affected women directly; not least in that they tend to predominate in rural areas where service provision is the poorest".

### *1.1 Problem Statement*

The prevalence of breast and cervical cancer is increasing. Furthermore, late presentation of patients to the hospital in advanced stages of cancer, when little or no benefit can be derived from any form of therapy, is the hallmark of these cancers. This situation suggests that health behaviour may be influenced by the level of awareness about breast and cervical cancer (Okobia, Bunker, Okonofua, & Osama, 2006).

The problem is that in spite of the efforts that have been made to educate women on the prevention and early detection of breast and cervical cancer, the statistics reveal that a gap exists between the dissemination of information and knowledge in this regard.

### *1.2 Aim of the Study*

The aim of the study was to explore and describe the awareness knowledge among women of child-bearing age regarding the prevention of breast and cervical cancer in the Oshakati health district.

### *1.3 Study Objectives*

The objectives of the study were to

- describe the knowledge of women on the causes, risk factors, and signs and symptoms of breast and cervical cancer
- explore the awareness of women on the promotion and prevention of breast and cervical cancer
- Identify existing opportunities/facilities available for women for accessing prevention information sessions with specific reference to health promotion in the context of breast and cervical cancer in the Oshakati health district.

### *1.4 Significance of the Study*

These findings could be used to guide women to be knowledgeable about cervical and breast cancers. In addition, they may be useful for policy makers in developing strategies for alleviating the barriers and challenges faced by women accessing knowledge on breast and cervical cancers. Therefore, the gaps and deficiencies highlighted in this study could contribute to health service planning.

## **2. Material and Methods**

### *2.1 Study Design and Methods*

A quantitative, non-experimental design was used for this study. This approach was chosen in order to provide a complete picture and an understanding of the awareness knowledge of women regarding health promotion in the prevention of breast and cervical cancers (De Vos, Delport, Fouche, & Strydom, 2011).

The study was descriptive in nature because it described the phenomenon as accurately as possible by using statistical, quantitative results from a sample representing the population (Polit & Beck, 2003).

### *2.2 Population*

The accessible population in this study included all women of child-bearing age, aged 15 to 49, in the Oshakati health district. This population was estimated at 41,985 according to (MOHSS, 1992). This age category was chosen because cervical and breast cancers have their highest incidence in this group of women.

### *2.3 Sampling*

The research sample included 419 women between the ages of 15 and 49 years who were admitted to the Intermediate Hospital Oshakati (IHO) during the period of March to October 2008. This number ensured a 95% confidence interval. The respondents were selected randomly.

In this study, the type of random sampling applied was systematic sampling. Accordingly, every second woman of child-bearing age admitted to the IHO was approached to form part of this study. The admission registers of the maternity, surgical and gynaecological wards, depending on respondents' condition, were used to make up the lists from which the women were drawn. Thus, every second woman admitted to the IHO, who fell into the age range (15–49) identified for this study and who was willing to participate, was randomly selected to be interviewed [10].

### *2.4 Data Collection*

The research instrument comprised a structured questionnaire, which consisted of open-ended and closed questions. The researcher compiled the questions from the available literature and personally distributed the questionnaires to every respondent when she was admitted to the hospital. The respondents who could not read or write as a result of their conditions were interviewed using the same questionnaire. Data were collected between March and October 2008. All 419 questionnaires were completed and sent for data analysis.

### *2.5 Data Analysis*

Firstly, questionnaires were coded to avoid duplication and then assessed for completeness. The Statistical Package for Social Science (SPSS) V 21 was used to analyse the data in this study.

### *2.6 Ethical Consideration*

Ethical clearance was sought from and granted by the University of Namibia's Ethics Committee and the MOHSS. Permission to conduct the study in the Oshakati district was granted by the Regional Health Directorate of the Oshana Region.

Participation in the study was voluntary and participants gave written informed consent prior to completing the questionnaire or participating in the interview. In addition, they were given the choice to withdraw from the study at any given time. Confidentiality and anonymity were assured because no personal details were entered on the

questionnaires. Confidentiality was further assured because the information was secured and kept confidential until the report was completed.

### 2.7 Validity and Reliability

The research instrument was developed by the researcher and was reviewed by the project supervisors, who are experts in the field. Subsequently, a pilot study was conducted with 10 women aged 15 to 49 years in the Oshakati health district. The information obtained from the pilot study was used to improve the research instrument [9]. To ensure validity, the researcher randomly selected participants and all data were analysed. To ensure reliability, the same questionnaire was used for all participants, both those that completed the questionnaire and those who were interviewed.

## 3. Findings

This section presents the findings obtained from the structured questionnaires. These are presented in the form of tables and charts.

### 3.1 Age of Participants

The majority (43%) of participants fell into the 21 to 30 age group and were admitted to the obstetric and gynaecological wards. This may be because this age group comprises the peak child-bearing years for women. The age group 31 to 40 years formed 29.6% of the sample and the 41 to 49 age group, 13.8%. The least represented age group (13.6%) was 15 to 20 years. Figure 1 gives an age breakdown of the participants in the study.

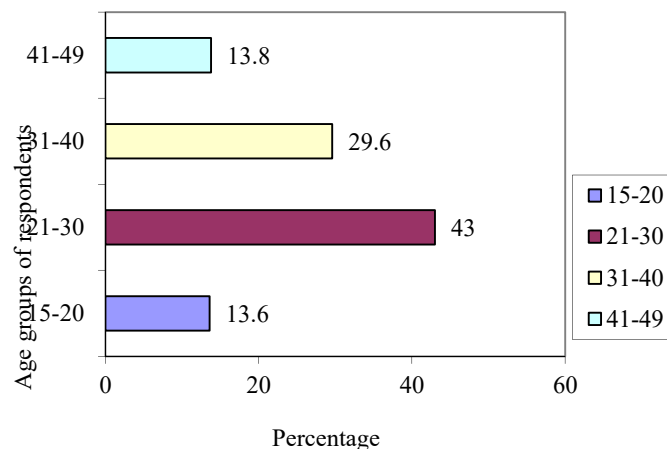


Figure 1. Age of respondents (N =419)

### 3.2 Level of Education

A large proportion (64.4%) of the study participants (n = 270) had a secondary education level, which means that most respondents were literate and were able to understand and act on information related to health promotion and the prevention of breast and cervical cancer appearing in the mass media.

### 3.3 Employment Status

The majority of women (36.0%, n = 151) were unemployed, 22.4% (n = 94) were in formal employment, 20.3% (n = 85) were subsistence farmers, 14.3% (n = 60) were self-employed, 6.4% (n = 27) were still students and the rest fell into other categories, as shown in Figure 2. The reason for ascertaining the employment status of the respondents was because it may influence access to health promotion services.

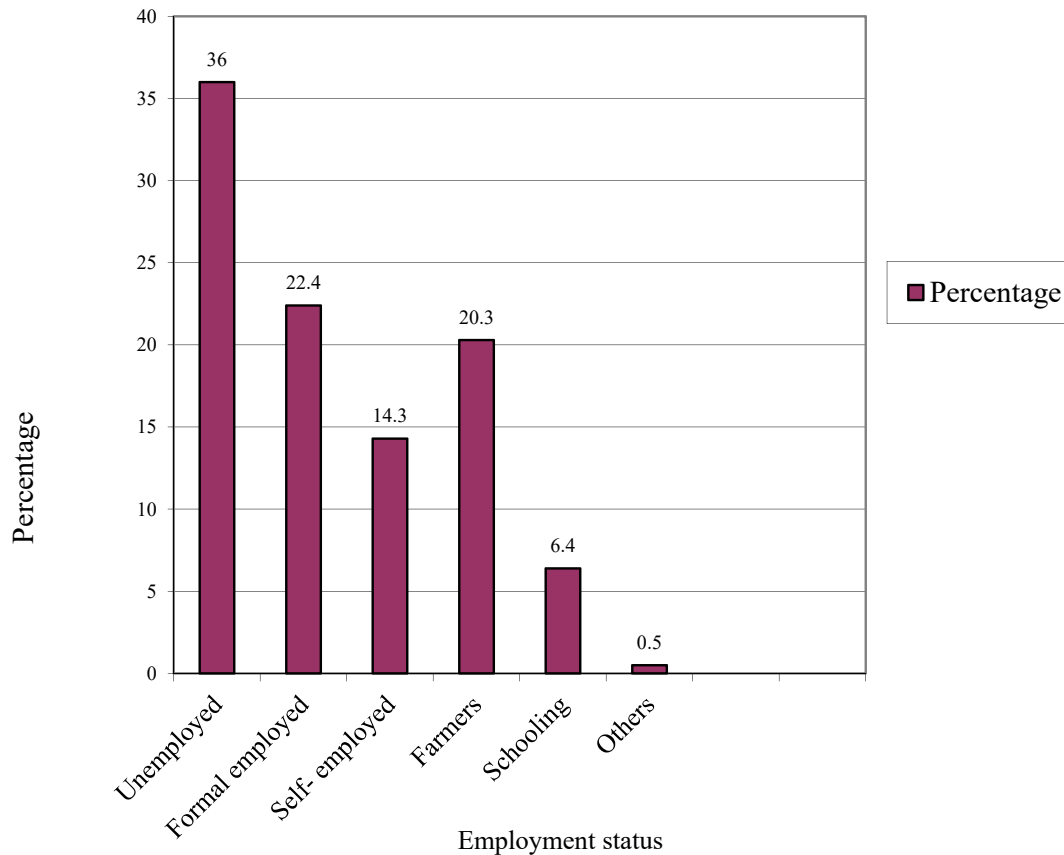


Figure 2. Employment status of respondents (N = 419)

### 3.4 Awareness Levels Relating to Breast and Cervical Cancers

Overall, a large proportion of the study participants ( $n = 374$ , 89.3 %) had heard and were aware of both breast and cervical cancer, while 7.2% ( $n = 30$ ) had never heard of either breast or cervical cancer.

A chi-square test was conducted, which showed a statistically significant relationship between the awareness knowledge of both cancers and age group, in terms of which women between 21 and 40 tended to indicate “yes” that they are aware about the chi-square test, while women younger than 20 years tended to say “no”, but to a lesser extent ( $p = 0.000 < 0.05$ ). By implication this means that the older women were more aware of both cancers than younger women. In addition, women with a secondary education and younger women (21–30) were more knowledgeable than the other age groups ( $p = 0.000 < 0.05$ ).

No statistically significant relationship was found between awareness knowledge of cancers and level of education ( $p = 0.13 > 0.05$ ).

### 3.5 Awareness Knowledge on Early Detection and Diagnosis of Breast And Cervical Cancer

The majority of study participants (41.2%,  $n = 173$ ) had heard that breast cancer appears as a lump in the breasts. Fewer respondents were able to respond correctly in terms of the non-lump symptoms of breast cancer such as changes in breast size, abnormal nipple discharges and changes in the colour of the skin of the breasts. In addition, a large proportion (40.0%,  $n = 168$ ) of the study respondents had heard about and believed that cervical cancer exists, but they did not have much information. Further, 14.5% of respondents ( $n = 61$ ) were aware that breast self-examination (BSE) is essential for the early detection of breast cancer.

Sixty-one (14.5%) of the respondents were aware of the early screening method, that is, having a pap smear annually and when accessing post-natal services, for the prevention of cervical cancer. Additionally, 4.7% of respondents ( $n = 20$ ) had heard that cervical cancer is a dangerous disease that can cause death, that it cannot be cured and that it renders women infertile.

Of the participants who responded that cervical cancer was explained to them, only 6.4% ( $n = 27$ ) could identify that the early warning signs of cervical cancer were asymptomatic. Fewer participants responded that the early

warning signs for cancer include vaginal bleeding, pelvic inflammation diseases (PID) and sexually transmitted infection (STI).

### 3.6 Risk Factors for Breast and Cervical Cancers

This study revealed that the study participants' knowledge on the risk factors for breast cancer was low, as 63.2% (n = 265) said they were not aware of the risk factors, while only 36.8% (n = 154) claimed that they were aware of the risk factors.

However, the study participants' knowledge of the risk factors for cervical cancer was relatively better than that related to breast cancer, as 51.3% (n = 215) agreed that they were aware of the factors that they thought might increase the risk of developing cervical cancer. On the other hand, 47.5% (n = 199) were unaware of the risk factors.

A statistically significant relationship was found between age group and knowledge of risk factors, where younger women tended to indicated that risk factors were not explained to them, older women indicated "yes" but to a lesser extent ( $p = 0.001 < 0.05$ ). Moreover, no statistically significant relationship was found between level of education and knowledge of the risk factors for breast cancer ( $p = 0.971 > 0.05$ ).

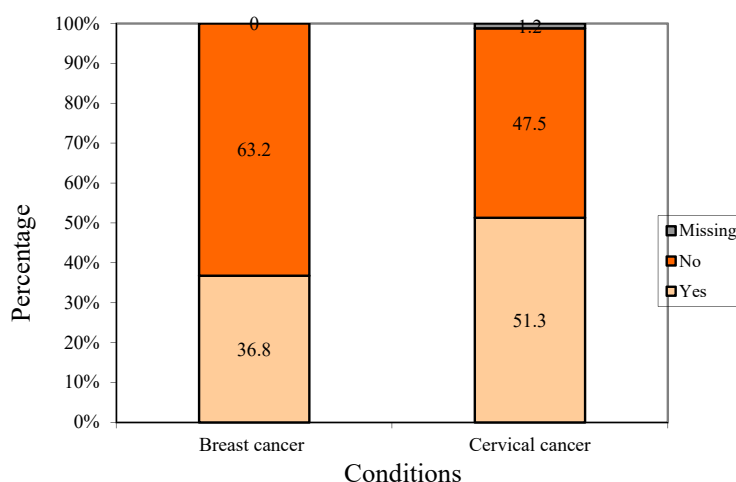


Figure 3. Breast and cervical cancer risk factors (N =419)

Factors identified as risk factors for breast cancer include first menstruation before the age of 12, first child after the age of 30, never being pregnant, inheritability in families, smoking and previous history of ovarian, breast and cervical cancer. Risk factors for cervical cancer identified by participants include failure to use condoms (5.3%, n = 22), and early sexual intercourse (5.5%, n = 23). Most endorsed risk factors included early sexual intercourse together with increased number of sexual partners (6.0%, n = 25); while 9.5% (n = 40) of respondents identified increased number of sexual partners.

### 3.7 Source of Information

Participants' leading source of information for breast cancer was the radio (24.1%, n = 101), while 16.7% (n = 70) acknowledged health workers (clinic) as their main source of information; 9.1% (n = 38) stated the radio and the clinic; 5.7% (n = 24) acknowledged family and friends as their source of information, and 4.1% (n = 17) referred to radio and newspapers as their main source of information.

For cervical cancer, 23.9% (n = 100) of participants acknowledged the radio as the leading source of information, while 16.7% (n = 70) acknowledged health workers (clinic), 8.1% (n = 34) claimed radio and clinic, 5.7% (n = 24) acknowledged family and friends as their source of information, and 4.3% (n = 18) acknowledged radio and newspapers as their source of information.

### 3.8 Causes of Breast and Cervical Cancers

Only 0.7% (n = 3) of those who responded that they heard about breast and cervical cancer, but are unaware of the causes. Most frequently endorsed causes of breast cancer were lumps in the breasts (14.3%, n = 60), and wounds or sores on the breasts (3.1%, n = 13).

The most identified cause of cervical cancer was a mass in the uterus (8.1%, n = 34); micro-organisms without specifying the name of the organism (6.2%, n = 26); increased number of sexual partners (4.0%, n = 17) and early age of first sexual intercourse (3.8 %, n = 16).

#### 4. Discussion

In terms of the findings of this study, awareness levels related to breast and cervical cancer indicate that 89.3% of the participants had heard and were aware of both cervical and breast cancer, while 7.2% had never heard of either cervical or breast cancer. These findings are consistent with those of a study done in Iwo, among a rural community of Osu, Nigeria (39.2%) (Hancock, Thomas, & Webster, 2005).

Radio was mentioned as the main source of information (60.8%) for cervical cancer by the participants of a study done in Nigeria, while in this study radio was mentioned in this regard by 24.1% of the participants in the Oshakati district. This gap might be due to the nature of the population of the two studies, as the Nigerian study was conducted with rural women only while in this study there was a mixture of participants from both rural and urban areas.

According to (Hancock, Thomas, & Webster, 2005), “a national breast cancer centre revealed a sobering picture of Australian women’s lack of knowledge about breast cancer”. These findings make it clear how crucial it is for women to make sure that they have enough knowledge about breast and cervical cancer to enable them to have regular screening and medical examinations.

The literature has shown that applied knowledge is powerful because without integrating knowledge into practice change will not take place either in the individual or the community at large.

It could thus be argued that if clients understand breast and cervical cancer and the consequences thereof, they will come for regular check-ups to determine their health status.

#### 5. Conclusion

This article discussed women’s awareness knowledge of health promotion on the prevention of breast and cervical cancer in the Oshakati health district. The study concluded that awareness of information about breast and cervical cancer does exist in the community. The findings show that the leading sources of information available in the district about breast and cervical cancer were the radio and the clinic. The majority of the participants were exposed to these sources.

The knowledge of risk factors for cervical cancer was good because 51.3% (n = 215) of the respondents were aware of the factors that might increase the risk of developing cancer. However, the knowledge that human papilloma virus (HPV) infection and smoking are risk factors for cervical cancer did not surface in the study sample. The clinic was found to be the second leading source of information in this regard, by giving health education to their clients. Moreover, it was indicated that no public educational materials were available at health facilities. The demographic information gathered indicates that 64.4% (n = 270) of respondents had secondary education and thus had the ability to understand the importance of health care of breast and cervical screening.

The overall knowledge of the early warning signs of breast cancer was very good as 83.3% (n = 349) of respondents revealed that a painless lump is significant, though pain is also considered a general indicator of impending danger. Few respondents were able to respond to non-lump symptoms.

Overall knowledge of the early warning signs of cervical cancer was very poor as only 6.4% (n = 27) could identify correctly that the early warning signs of cervical cancer were asymptomatic. This implies that there is a lack of accurate information on cervical cancer available in the community. Some respondents considered vaginal bleeding, pelvic inflammation disease (PID) and sexual transmitted infection (STI) to be early warning signs of cervical cancer.

##### 5.1 Recommendations

The following recommendations can be made based on the findings of this study:

- The women who lead community-based organisations should invite their peers to scheduled meetings and workshops and encourage other women to participate in the activities of non-governmental organisations (NGOs) and faith-based organisations available in their communities and to share information.
- Community health workers’ training should be expanded to include causes, risk factors, signs and symptoms, benefits of screening, recommendations on screening and description of procedures. They could encourage women on their monthly home visits to hold meetings and share information in their communities with friends, mothers and aunts. These would foster a real sense of support among women.

- Supervisors of departments and units and managers of health facilities should support and encourage nurses, when seeing women in health settings, to use every opportunity to teach BSE and to reinforce the practice of BSE and pap-smear tests. Health education sessions should be recorded and reported on a monthly basis to managers for action.
- State and private doctors should recommend eligible women be screened for both cancers, as studies have shown that women are more likely to be screened if doctors recommend screening. Private doctors could send reminder letters to their patients.
- The MOHSS through the Family Health Division should facilitate the development of pre-discharge checklists as a reminder for doctors to consider prevention once acute medical care has been administered. This checklist should be distributed in every ward so that it can be used during doctors' rounds.
- The ability to implement a national programme to address the early detection of breast and cervical cancers depends largely on the involvement of various partners – state, doctors, community leaders, headmen, churches, NGOs, private sector organisations and (women) consumers.
- The MOHSS through the Family Health Division should increase the number of pap-smear tests throughout the country through partners like the Cancer Association of Namibia. This might mean taking mobile services to hard-to-reach women in their communities.
- When reviewing programme planning, the MOHSS, through the Family Health Division, should investigate the possibility of providing counselling and screening for cervical cancer in the voluntary counselling and testing (VCT) centres for HIV.
- Women tested positive for HIV may have impaired immune systems. The MOHSS should include the policy of recommending eligible HIV positive women to undergo pap-smear tests as part of the baseline clinical assessment and monitoring with annual follow-up visits.
- The study concluded that few public educational materials are available at health facilities to inform women on breast and cervical cancer prevention. The public should be encouraged to develop a reading culture.
- Researchers have reported that one of the strongest predictors of screening compliances is the knowledge of the reason for screening and a closest health facility.
- Information education and communication (IEC) division should develop health materials that are aimed at the different reading levels of women, are culturally acceptable in the community and translated into the local languages. These should be distributed to its partners in the health and other ministries so that people can access the same information. HCPs should display posters and show videos in their waiting rooms, especially in rural areas where literacy levels are low.
- The radio is the most reliable source of information in the rural areas. HCPs in all the regions need to give more health talks over the radio in order to reach more women, especially in view of the fact that the MOHSS has been given free airtime of one hour every Friday by the Namibian Broadcasting Corporation (NBC) to deliver health information to the Namibian population. The NBC and the other television stations should, on a weekly basis, include information on breast and cervical cancer prevention in their television broadcasting schedules.

### *5.2 Recommendations for Further Study*

It was concluded that most respondents do not have a reading culture, although most of the women in the study were literate. There is a need to investigate further why women are not reading. The other barrier that still needs to be addressed is the question of access to appropriate health information materials.

### *5.3 Limitations of the Study*

The possibility that participants may misinterpret a question can be minimised by careful pre-testing of the questionnaire but it cannot fully be eliminated. The researcher assessed knowledge using simple phrases and questions interpreted into the vernacular language. A few of the women who completed the questionnaires themselves might have misinterpreted some of the questions and this could have led to false information.

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### Competing Interests Statement

The authors declare that there are no competing or potential conflicts of interest.

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