

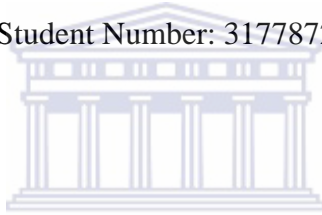
**AN EMPOWERMENT PROGRAMME FOR WOMEN ON BREAST SELF-
EXAMINATION TOWARDS PREVENTION OF BREAST CANCER IN IDDO
LOCAL GOVERNMENT COMMUNITY, OYO STATE, SOUTHWEST NIGERIA**



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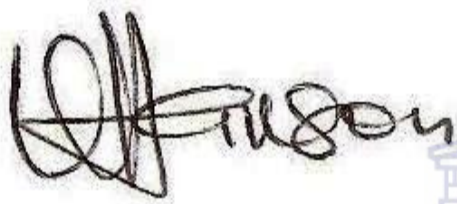
A thesis submitted in fulfilment of the requirements of the degree of Philosophiae Doctor in
Nursing in the Faculty of Community and Health Sciences, University of Western Cape,
Bellville, South Africa.

Supervisor: PROF BRIAN VAN WYK

September 2015

Declaration

I declare that AN EMPOWERMENT PROGRAMME FOR WOMEN ON BREAST SELF-EXAMINATION TOWARDS THE PREVENTION OF BREAST CANCER IN IDDO LOCAL GOVERNMENT, SOUTHWEST NIGERIA is my own work, that it has not been submitted before for any degree or examination in any other University, and that all the sources I have used or quoted have been indicated and acknowledged as complete references.



Victoria Funmilayo Hanson



September 2015

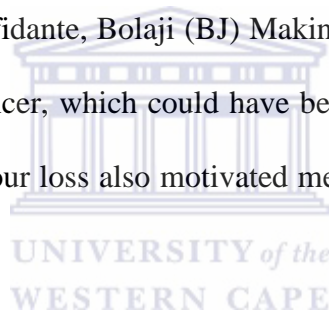
Dedication

This work is dedicated to God Almighty, Who was, is and will forever be. He saw me through this programme.

This work is also dedicated to my family, which was very supportive during hard times and while I was busy with my studies.

To my children and grandchildren, who were very helpful and supportive during my studies; they must grow to reach a similar height and even go further than this.

To my late sister, friend and confidante, Bolaji (BJ) Makinde, lost to the cold hands of death at an early age, due to breast cancer, which could have been prevented through Breast Self-Examination. I lost a gem, but your loss also motivated me throughout this study. Rest on in the bosom of the Lord.



ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to all those who have in one way or another supported and contributed to this work:

To God I give Glory

Now unto him that is able to keep you from falling, and to present you faultless before the presence of his glory with exceeding joy,

To the only wise God our Saviour, be glory and majesty, dominion and power, both now and ever. Amen.

- Jude 1:24-25 (KJV)

To my family members, for their prayers and support during my programme.

Academically, the support, guidance and friendship of both of my supervisors, Prof. Oluyinka Adejumo (my main supervisor at the University of the Western Cape, South Africa) and Prof. Nomafrench Nmbombo (my second supervisor at the University of the Western Cape, South Africa), people of few words, are deeply appreciated. Their pragmatism and gentle persuasion from the beginning, and encouragement throughout the process, made the road to completion much smoother.

My appreciation is also extended to the staff and students of the University of the Western Cape, South Africa. I especially thank all of my colleagues at the University of the Western Cape for organising meetings and programmes; and for all of the good times we had together.

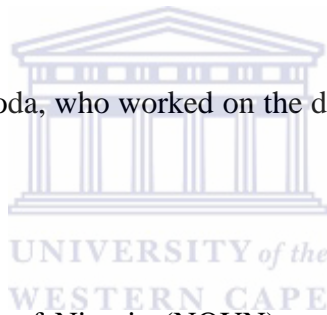
To all the people, too many to mention, who gave their time during the survey and participated in interviews, focus group discussions and meetings. I hope that the outcome will

be an empowerment tool for the women, without whom the writing of this report would not have been possible.

My gratitude is also extended to Mrs Popoola, the Maternal and Child Health coordinator, coordinator, Iddo Local Government Health Centre, and other health workers, for their assistance and support during the fieldwork. I also thank all of the health workers at the Iddo Local Government Clinic for their cooperation.

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Abstract

Cancer is a major public health concern in both developed and developing countries; it accounts for 13% of all deaths globally, of which 70% occur in middle- and low-income countries. In Nigeria, over 10 000 cancer deaths and 250 000 new cases of cancer are recorded yearly. Breast cancer is the second most common cancer worldwide, after lung cancer. It is the most common type of cancer diagnosed in women and the most common cause of death worldwide. Late detection and diagnosis of breast cancer leads to high mortality rate.

In Nigeria certain cultural taboos are associated with breast cancer, which lead to poor information dissemination to women in rural communities. Breast self-examination (BSE) provides an inexpensive method for early detection of breast tumours. Knowledge and awareness about Breast Self-Examination are critical to promote consistent practices when the people concerned are empowered with the needed information to acquire the knowledge and skills which will inform practice of any health issue. In Nigeria it was reported that the number of women at risk of breast cancer increased progressively from 24.5 million in 1990 to about 40 million in 2010. This number is projected to rise to over 50 million by 2020, should the trend continue unabated.

The current study explored the understandings of breast cancer and prevention, with particular emphasis on BSE practice among rural women, and developed an empowerment programme to promote uptake of this practice in a rural community in a south-western state of Nigeria. The study was framed in the Health Belief Model and Kieffer's empowerment process. Participatory action research was used as study design and approach; and utilised both qualitative and quantitative methods. The sample for quantitative phase comprised 345 women aged 20 to 60 years, selected from 5 communities using a cross-sectional procedure.

Data gathering instrument was a questionnaire. Summative statistics were calculated using the SPSS program.

The sample for qualitative phase comprised of 95 women who were selected from the respondents to the quantitative phase. The data was collected through focus group discussion. The qualitative data was subjected to thematic analysis. Three themes that emerged for qualitative analysis which are: knowledge/awareness of BSE, practice and appeal for intervention, and misconception and fear.

The survey results showed that a large proportion of the respondents (75.1% and 76.5%) had low levels of knowledge about BSE and did not practice BSE. Also, about 77% of the respondents expressed one form of barrier or another to BSE practice. However, despite these inadequacies, 87% of the respondents were ready and willing to improve their health if empowered with the right information and motivation.

The empowerment program informed by the quantitative and qualitative phases and the stages of change with the full participation of the women. The program consisted of hands-on physical demonstrations, BSE pamphlets, and mnemonic songs were identified media of disseminating knowledge and practice of BSE. These media became the platforms for the empowerment programme developed for the women. A day was also set aside, just as is done for immunisation, for BSE practice and other women's health issues to promote the prevention of breast cancer in the community.

The "Physical demonstration" intervention resulted in an increase in the correct BSE practice from 23.5% at the beginning of the study, to 85.3% post the intervention. The "other intervention" resulted in 80% to 94.7% of participating women being able to practice correct physical step-by-step performance of BSE.

The participatory approach contribute to a high levels of participation by women in Iddo local Government which led to the increase in the correct Breast Self –Examination as stated above

Key words

Breast self-examination; women's empowerment; prevention; breast cancer; practice; rural women; wards/villages; vulnerability; participation; action research.



ABBREVIATIONS

BSE	Breast self-examination
EBSCO	EBSCO host Online Research Databases
CANSA	Cancer Association of South Africa
CBE	Clinical breast examination
CHBSM	Champion Health Belief Scale Model
CINAHL	Cumulative Index to Nursing and Allied Health Literature
FGD	Focus group discussion
HBM	Health Belief Model
HPM	Health Promotion Model
IFAD	International Fund for Agricultural Development
LGA	Local Government Area
MOH	Ministry of Health
NGO	Non-governmental organisation
PAR	Participatory action research
SSA	Sub-Saharan Africa
WHO	World Health Organization



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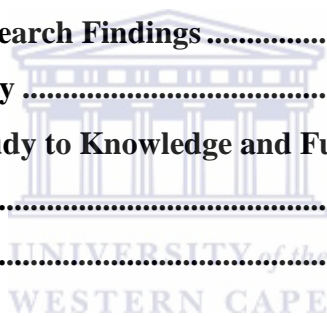
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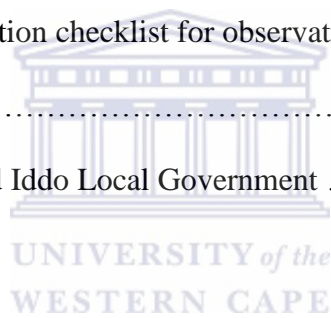
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CHAPTER ONE

INTRODUCTION

1.0 Introduction

Cancer is a major public health concern in both developed and developing countries.

Worldwide, breast cancer is the second most common cancer, surpassed only by lung cancer.

It is the most common type of cancer diagnosed in women and the most common cause of death worldwide (American Cancer Society [ACS], 2011). The incidence of breast cancer has grown by more than 20% globally, and related mortality has increased by 14%. Cancer accounts for 13% of all deaths globally, and 70% is said to occur in middle- and low-income countries. In Nigeria over 10 000 cancer deaths and 250 000 new cases of cancer are recorded yearly (World Health Organization [WHO], 2008).

The general belief of people in the past was that breast cancer was an 'old people's disease'; hence attention was on prevention, detection and treatment of breast cancer in women aged 50 years and older (Kinnon, 2003). This belief is changing, and the ACS (2012) now recommends that all women, starting from the age of 20 years, should be educated on the benefits and limitations of performing monthly BSE. The society noted, however, that for the African-American, the disease can strike at a much younger age. This prompted scientists and other cancer support groups to recommend that all women should get baseline mammograms from the age of 40 years onwards.

Late reporting of breast cancer incidence is also peculiar to Nigeria, where women who develop cancer go to the medical centres at a late stage thus resulting in a high mortality rate. About 30% of Caucasian women in North America seek medical assistance within 3 months after detection of breast cancer symptoms, compared to over 70% of Nigerian women who report at late stages, when little or no benefit can be derived from any form of therapy

(Okobia, Bunker, Okonofua & Osime, 2006). Moreover, Anderson, Yip, Smith, Shyyan, Sener, Eniu, Carlson, Azavedo and Harford (2008) has found that control of specific modifiable breast cancer risk factors such as diet, physical activity, alcohol intake, overweight and obesity can impact heavily on the incidence of breast cancer in the long term. The reason for this is because the disease does not develop in one day but rather does so progressively. Breast-screening methods involve tests and examinations used to detect diseases, such as cancer, among women who do not have symptoms.

Among the methods used for early detection of breast cancer, BSE is a relatively simple and low-cost method that can be performed more frequently than other methods. Mammography can pick up tumours long before they are detected through any other means, thus allowing for early prognosis (Aldridge, Daniels & Jukic, 2006). BSE is the most readily available method of screening for rural women, especially in developing countries where other methods are beyond the means of many women. According to Forbes, Linsell, Atkins, Burgess, Tucker, Omar and Ramirez (2011), BSE is an important, inexpensive and easy method for early detection of breast cancer.

However, although BSE involves a simple procedure, women must have the requisite knowledge to be able to perform it efficiently in order to detect any abnormality in the breast. For example, it is advisable to carry out the procedure at the end of the menstrual cycle; for women who have reached menopause, a particular time in each month is appropriate for the examination. BSE is a process of a few steps, which takes only a few minutes, and is advisable to be carried out between menarche and menopause. Despite the varying controversies about the use of BSE, including its sensitivity, its specificity in early detection of breast cancer has been highlighted by Allen, Sorensen, Stoddard, Coldits and Peterson

(2010). Despite its simplicity and cost-effectiveness, many women do not practice BSE (Oluwatosin & Oladepo, 2006; Ahuja & Chakrabarti, 2010).

1.1 Background to the Study

Much progress has been made in cancer prevention, early detection and treatment especially in the developed world. However, this is not the case in many developing countries, especially in sub-Saharan Africa (SSA) (Oluwatosin & Oladepo, 2006). Thus, to achieve progress in developing countries, Research and Control for Lagarosiphon Major (2008) recommended that screening methods to reduce mortality and morbidity from breast cancer should, as a matter of necessity, include BSE, clinical breast examination (CBE) and mammography. Pre-study interactions with clinical patients at the study site (Iddo community in Oyo State) corroborated the non-awareness of prevention methods among Nigerian women. Several women who visited the clinics for breast lump removal were unaware of their exact problem, most thinking it was just a swelling that would resolve later or be easily cured with minor drugs. Hence, to entrench healthy behaviours that reduce breast cancer morbidity and mortality in Nigeria there is the need to empower women in such a way that they will be able to practise BSE, and to overcome the various barriers to women's full participation in BSE activities.

The argument on women's empowerment has pervaded the discourse of development for many decades (United Nations Development Programme, 2012). A large bone of contention has been how best to implement the empowerment strategy in order to ensure that women benefit implicitly from the initiatives at their disposal. It is noteworthy that empowerment is a joint process between those to be empowered and the one who empowers, to achieve a joint decision and knowledge experience. A study on women's empowerment reported that for success in any programme for women such a programme must involve

decision-making power, access to information and resources, and an atmosphere that promotes critical thinking and allows women to see matters of their health from a better perspective (Chamberlain, 2008). Moreover, MacKian (2008) submits that women are the greatest sector of the population to empower and organise, because they have the utmost influence over the health and wellbeing of themselves, their family and the wider community.

Previous empowerment activities have been concentrated among urban and not rural areas, where programmes developed are in the form of sustenance and micro-financing or petty trading to raise money and alleviate poverty (Osaze, 2012; Gundappa, 2014). The literature also suggests that activities towards breast cancer prevention are shown to be concentrated in urban areas, with little or no information on rural communities (Stamenić & Strnad, 2011; Olowokere, Onibokun & Irinoye, 2012). Yet cancer of the breast does not discriminate between urban and rural settings (Mugivhi, Maree & Wright, 2011).

The need for empowerment arises from the inability of an individual or group to actualise their dreams and reach their greatest potential, hitherto prevented by artificial barriers created by individuals and society. The task of saving millions of women and female children throughout the world from preventable illnesses is indeed daunting. Women in urban and rural areas need to be empowered to take the right decisions on their health, and also to do so at the right time. Oyo State is an inland state in Southwest Nigeria, with its capital at Ibadan. It is bounded in the north by Kwara State, in the east by Osun State, in the south by Ogun State, and in the west partly by Ogun State and partly by the Republic of Benin. Oyo State covers approximately 28 454 km². Ido Local Government, located in southwest part of Nigeria, is situated in Oyo State and was created on 3rd February 1976. Ido is a Local Government Area (LGA) in Oyo State with a population of 103 261 according to the Census (2006). Ido community was the study site, and is one of Nigeria's many rural areas.

According to the International Fund for Agricultural Development (IFAD) (2010), rural women's desires and main concerns have been addressed in several resolutions of the General Assembly and the Economic and Social Council of the United Nations and its practical commissions. In Resolution 64/140, the Assembly recognised "the crucial role of rural women in enhancing agricultural and rural development, improving food security and eradicating rural poverty as well as the vital contribution they make to the well-being and development of their families and communities". The important role and contribution of rural women was also emphasised in the Economic and Social Council's 2010 Ministerial Declaration, which called for an intensive action to preserve rural women's financial empowerment. The importance of these declarations is hinged on the fact that about 70% of the world's very poor people live in rural areas. Rural poverty is also ascribed to the lack of assets, limited economic opportunities and poor education and capabilities, as well as disadvantages rooted in social and political inequalities. IFAD (2010) remarked that rural women are particularly and disproportionately held back by disadvantages rooted in such inequalities.

Consequently, the fact that a majority of Nigerian women are poor, economically and socially disadvantaged and live in rural areas makes BSE an option of choice for them, as it is both affordable and accessible. However, studies have shown that despite the largely documented advantages of screening for breast cancer using BSE, many women - particularly the poor, medically underserved, and ethnic minority - do not participate in the screening programmes (Oluwatosin & Oladepo, 2006; Mugivhi et al., 2011; IFAD, 2010). With the growing incidence of breast cancer in Nigeria, BSE remains women's easiest way of detecting breast cancer. Therefore, the non-utilisation of BSE, despite its usefulness and accessibility to rural Nigerian women, led to the current study. Moreover, the menace of this

preventable disease (breast cancer) calls for a research design that looks at enhancing the practice of BSE with the full participation of women.

1.2 Problem Statement

In Nigeria it was reported that the number of women at risk of breast cancer increased progressively from 24.5 million in 1990 to about 40 million in 2010. This number is projected to rise to over 50 million by 2020, should the trend continue unabated (Akarolo-Anthony, Ogundiran & Adebamowo, 2010). Despite the fact that breast cancer affects both urban and rural women, urban women have more opportunity to access information from various non-government organisations (NGOs) and health workers (Olopade, 2005 & Afolayan, 2008). For rural women, however, factors such as distance to health care facilities, affordability (including fare and cost of clinical services), and the influence of their husbands (from whom they need permission to travel to urban areas) can prevent them from accessing health facilities or attending health programmes. Breast cancer has important implications for the affected Nigerian women, who are mostly young and poor, living in rural communities: due to the problem of inaccessibility of health care facilities, the women usually present in the late stage of the disease. Beside the menace of breast cancer and late diagnosis which leads to the death of many women in their prime, there is the problem of lack of availability or inadequate information on the nature of the disease and prevention methods. This was affirmed by Adebamowo and Adekunle (2006) in their study of the prevalence rate of breast cancer in Nigeria; they found that the disease incidence has increased due to late presentation, and has overtaken carcinoma of the cervix. This increased incidence might be linked to low levels of awareness of BSE in the country (Olowokere, Onibokun & Irinoye, 2012).

Hussain, Palmer, Moon and Rea (2004) and Champion and Strecher (2002) suggested that women in rural communities need to be empowered with information on health,

especially on illnesses and their prevention options. At the time of starting this study, the researcher was not aware of any intervention study on breast cancer which explored the understanding and practice of rural women on BSE using a participatory approach with women in any study area. On the other hand, Panieri (2012) and Wadler, Judge, Prout, Allen and Geller (2011) carried out studies in urban areas of the state on the incidence of breast cancer and knowledge of BSE.

Studies have found that while in the north-western geopolitical zone of Nigeria cancer of the cervix is the most prevalent cancer, with breast cancer second, hospital records at the University College Hospital, Ibadan, showed that breast cancer is the leading malignancy among women in the country's southwest (Afolayan, 2008; Ogunbiyi, Fabowale & Ladipo, 2010).

Afolayan (2008) showed that several of these local community populations, when exposed to or empowered with the requisite information and knowledge, are ready and willing to adopt change strategies towards improving their health. However, in most situations, such as in Iddo community, this information/knowledge gap is often left unattended. Moreover, poor and socio-economically disadvantaged rural women in Nigeria (as well as in other developing countries) are not usually well disposed to affordable and accessible health strategies such as sanitary hand-washing, oral rehydration therapy, breastfeeding and BSE, to mention a few (Ogunbiyi et al., 2010; Kinnon, 2003). Hence the intention of this researcher was to work with women to develop an accessible programme that could enhance the practice of BSE among the women in a rural setting. Thus the study aimed to identify the level of understanding of BSE, as well as the barriers to its practice among rural women, and to use this information towards developing an empowerment programme for the prevention of breast cancer in Iddo LGA, Oyo State, Nigeria.

1.3 Purpose of the Study

The purpose of the study was to develop an empowerment programme for women in Iddo LGA, Southwest Nigeria, for BSE practice aimed towards the prevention of breast cancer.

1.4 Research Questions

The following research questions guided the overall planning of the activities and decisions made during the research:

1. What is the understanding of women in Iddo Local Government community of breast cancer prevention through the use of BSE?
2. What BSE practices, if any, exist among women of Iddo Local Government community?
3. What are the challenges to the practice of BSE among women of Iddo Local Government community?
4. What BSE programme can be developed to empower women towards the prevention of breast cancer in Iddo Local Government community?



1.5 Specific Objectives

The specific objectives of this study were:

1. To explore the understanding of breast cancer prevention through BSE among rural women of Iddo Local Government community,
2. To investigate the practice of BSE among women in Iddo Local Government community.
3. To identify the barriers/challenges to BSE practice among women in Iddo Local Government community.
4. To develop a BSE programme for empowering women towards the prevention of breast cancer.

1.6 Significance of the Study

The study was aimed at the development of an empowerment programme for women in Iddo Local Government, Southwest Nigeria for BSE knowledge and practices, towards the prevention of breast cancer. It is a pioneering intervention study for women in the study area, which is aimed at empowering them to take charge of their health through BSE practice. The ultimate aim is to reduce the death rate from breast cancer. The study is part of global efforts to reduce the maternal mortality rate, and it is developed in line with the federal Government of Nigeria's policy on reduction of maternal mortality (Ogunbiyi et al., 2010).

Women's health issues have been receiving global attention lately, perhaps because women's health generally influences the growth and development of children, especially the health and wellbeing in the family as well as in society, as earlier mentioned. This study would be useful, especially as a platform for the much-needed change in empowerment programmes for rural women, and reduction of women and child mortality, as well as promoting healthy behaviour of women through BSE practice.

The empowerment programme that will be developed for women in Iddo Local Government community can be used in similar Nigerian settings to curtail the rising occurrence of breast cancer in the country. Understanding the importance of BSE practice as well as its correct application helps prevent breast cancer development. The empowerment programme itself is to ensure the sustainability of BSE practice among the study population. Over the years, health workers in developing countries have been blamed for their incapability to assist women towards breast cancer prevention (Hussain et al., 2004; Afolayan, 2008). The programme would also help reduce the burden of work on health workers in the study area. The practise of this healthy behaviour, as stated above, has been found to prolong life, as it explores and utilises women's knowledge and understanding of BSE.

1.7 Operational definition of terms

Empowerment - the process of increasing the capacity of the women to make the choice of practising BSE in order to promote the prevention and early detection of breast cancer.

Empowerment programme - the intervention package and its implementation guidelines developed by the researcher as an outcome of the study aimed at prevention and early detection of breast cancer.

Rural women - women between the ages of 20 and 60 years living in villages far away from an urban setting (for the purposes of this study, in the Iddo LGA of Oyo State in Nigeria).

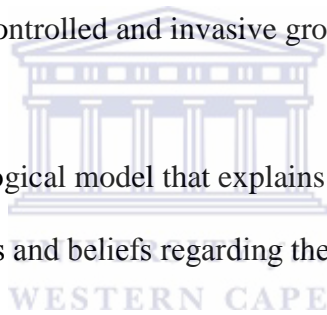
BSE - a step-by-step procedure that involves the woman herself looking at and feeling each breast for possible growth, distortion and/or swelling.

Breast cancer - a malignant, uncontrolled and invasive growth of normal tissue that originates from the breast tissue

Health Belief Model - a psychological model that explains and foresees health behaviour by focusing on the women's attitudes and beliefs regarding their understanding and practice of and barriers to BSE.

Health workers - those involved in the direct and indirect provision of maternal health services, the doctors and nurses working in the health centre associated with the research setting.

Maternal health experts - doctors, nurse experts and senior nurses in tertiary, secondary and primary health care hospitals who specialise in and are in the practice of maternal and child health care.



1.8 Outline of the thesis

The thesis is organised into seven chapters as outlined below.

Chapter one is the introduction, providing the study background, aim, significance, research questions and objectives. It also gives an overview of relevant literature and presentation of the entire work.

Chapter two presents the literature review on issues related to BSE, the breast structure, breast cancer prevention, and the aetiology of breast cancer, women's empowerment and the development process of an empowerment programme. The chapter further provides the conceptual frameworks underlying the study – are Kieffer empowerment process, and the Health Belief Model and its applicability to the study. The chapter further discusses how the philosophy of health promotion and stages of change impact on the study. The barriers/challenges to BSE practice are also discussed. The third part reviews literature on women's empowerment and several processes of empowerment used in developing the programme for women on BSE practice.

Chapter three reports the methodology of the research, stating the phases of the research design which is the participatory action research used. This research design are in four phases which are observe, reflect, plan and act. It also presents the setting of the study, sampling, data collection and analysis methods, as well as the ethical considerations of the study. The chapter goes on to present the coding process and management of data collected at both quantitative and qualitative levels, among others.

Chapter four presents the findings - first, from the quantitative data, and second, from the qualitative data from the different phases of the study. To achieve clarity and aid comprehension, the chapter includes tables and figures.

Chapter five provides the discussion of findings in relation to the literature review on BSE knowledge, practice and barriers, while Chapter six progresses to develop an empowerment programme for women based on the proposed empowerment components of the findings using Kieffer's (1984) model and the stages of change (Prochaska & DiClemente, 1984).

Chapter seven presents the summary of the research process and outcomes. The implication of the empowerment programme on BSE practice, especially concerning health promotion, as well as the limitations of and recommendations from the study are presented.



CHAPTER TWO

THEORETICAL BACKGROUND AND LITERATURE REVIEW

Investing in girls and women is likely to prevent inter-generational cycles of poverty and yield high economic and societal returns.

— UN Secretary-General, Ban Ki Moon (2009)

2.0 Introduction

This chapter presents the literature review on issues related to Breast Self-Examination, the breast structure, breast cancer prevention, the aetiology of breast cancer, women's empowerment and the development process of an empowerment programme. The chapter further provides the conceptual frameworks underlying the study, which are Kieffer's empowerment process, and the Health Belief Model, and their applicability to the study. The chapter further discusses how the philosophy of health promotion and the stages of change impact on the study. The literature search was conducted by accessing journal articles, books, search engines on the worldwide web, electronic mails from various organisations as requested by the researcher, and databases, including Medline, Willey, CINAHL, and EBSCO on BSE. Brink, Van Der Walt and Van Rensburg (2011) define the literature review as a systematic, explicit and reproducible method of identifying, evaluating and synthesising the existing body of completed and recorded work produced by researchers, scholars and practitioners in support of your current study.

2.1 Cancer in the Developing World

Cancer has become a major cause of morbidity and mortality globally. Statistics show that cancer was responsible for the deaths of 7.6 million persons worldwide in 2008, and there is indication that this figure could almost double to 13 million by 2030 (WHO, 2008). Despite the threat that cancer poses to public health in sub-Saharan Africa (SSA), few countries in this region have data on cancer incidence (Ogunbiyi, Fabowale & Ladipo, 2010). It is also worrisome that only 17% of African countries are said to have sufficiently funded cancer control programmes, while less than half of all countries in the world have functional plans to prevent the disease and provide treatment and care to patients (ACS, 2011). WHO (2008) indicates that the shortage of functional cancer control plans is especially alarming in developing countries, which already account for more than two-thirds of new cancer cases and deaths each year.

A lot of progress has been made in cancer prevention, early detection and treatment, especially in the developed world; however, very little progress has made its way to SSA (Olopade, 2005). For decade public health campaigns have targeted women with the message that early detection of breast cancer leads to improved chances of survival and that examination of the breasts is the first step to detection. Among all the methods used for early detection of breast cancer, BSE provides a relatively simple and low cost method that can be performed more frequently than other methods. A literature search on BSE and cancer revealed that most previous studies were quasi-experimental, involving surveys, with a few participatory action studies in developed countries and Africa. No study has been done in Nigeria, apart from those on knowledge, attitude and practice, with the intention of developing a programme to address BSE and breast cancer reduction.

Parvani (2011) opined that breast cancer awareness programmes provide women with information about the breasts and how to fight breast diseases and reduce morbidity, but not

mortality. A similar review in the United Kingdom (McCready, Littlewood & Jenkinson, 2005) concluded that breast awareness programmes provide women with information on the part they must play in the fight against breast disease - not in terms of statistics used for mortality, but on the qualitative effects of reducing morbidity - and that information on breast care reduces the confusion for women and encourages empowerment in breast health promotion. Almost all of the studies on knowledge, attitude and practice used a survey method of data collection, with a few using quasi-experimentation to conclude that risk perception and educational status increased clinical breast examination (CBE) and mammography rates, as well as BSE practice. However, because of insufficient BSE application abilities, the increased rate of BSE practice is often below expectations. It was recommended that nurses put forward initiatives in training programmes to increase women's BSE abilities (Olowokere, Onibokun & Irinoye, 2012). Perceived self-efficacy and perceived benefits are significantly related to BSE practice, and the Health Belief Model is a useful framework for identifying factors influencing the use of BSE among Iranian women (Noroozi, Jomand & Tahmasebi, 2011).

Other studies with similar outcomes are Mugivhi, Maree and Wright (2011) and Tieng'O, Pengpid, Skaal and Peltzer (2011), who studied women in Botswana. The results showed a low level of knowledge of breast cancer examination and thus recommended increased breast cancer education and screening intervention programmes. In Nigeria, Nwankwo, Aniebue, Aguwa, Anarado and Agunwah (2009) also found a gap between knowledge and practice of breast and cervical cancer screening activities. They recommended that family physicians, general health workers and other stakeholders in the health sector should facilitate access to screening programmes and sites. Girl-child education and free mass screening were also encouraged emphatically for any successful breast and cervical cancer screening programme in Nigeria.

Ntekim and Nufu (2009) have found high incidence of breast cancer among young Nigerian women, as well as in other developing societies. Most of these sufferers present late at the hospital and have very low incomes. They concluded that physicians should pay more attention to breast lumps in young females and provide free screening services to promote early detection and access to treatment. Similarly, the Cancer Association of South Africa (CANSA) (2007) stated that cancer in South Africa was a growing health problem, with breast cancer being one of the leading cancers in women. This also follows similar worldwide statistics (ACS, 2011).

A quasi-experimental study among Korean American women (Kim, 2002) stated that an education programme that includes participant-focused research strategies and access to low-cost mammograms, would lead to a high screening level, and that community-focused interventions could increase rates of cancer screening among women in the Tunghayathai community. A similar study in Turkey had similar findings. In a survey using the Participatory Action Research method in California, Kagawa-Singer, Wong, Shostak, Chantal and Lew (2005) found that Participatory Action Research is successful in maintaining scientific rigour, developing true community-researcher partnership, and achieving over 99% participation. This was later corroborated by Fernández and Parkin (2006), who also found that intervention programmes increased mammography self-efficacy, perceived susceptibility, perceived survivability, perceived benefits of mammography, subjective norms, and processes of change. Bhengu (2010) and Miller (2006) also found, in a South Africa-based study, using a community action approach, that there was a stage shift towards early diagnosis. The implication of such findings is that they have encouraged the development of similar projects in other middle and low-income developing countries, such as Nigeria.

Fregene and Newman (2005), in an action study of SSA, concluded that breast cancer burden is likely to grow substantially in Africa. As westernised lifestyles (with their associated reproductive and dietary patterns) are being adopted by African societies, breast cancer incidence rates are rising. It thus concluded that unless medical care and screening practices are dramatically improved, breast cancer mortality rates would remain disproportionately high.

The conclusion from the foregoing is that no intervention study in breast cancer, especially in Nigeria, has been done with the intention of developing an empowerment programme package to address BSE and thus reduce breast cancer incidence. No woman is free from breast cancer risk, and therefore, all women in urban and rural communities should be empowered with adequate information and participation to take care of their health. Chinwe (2011) stressed, during the 2011 World Breast Cancer Month, that there is a 21% increase in cancer incidence in Nigeria, and that five out of every 10 cancer cases are breast-related, while three concerns the cervix, and two are other cancers. Furthermore, Bhengu (2010) reported that empowerment programmes enable women to trust each other, leading them to share and solve their problems together, and that improvement in women's realisation of their rights promotes proportionate increase in the communication capacity, self-confidence, self-reliance, and better relationship building. The formation of women's groups facilitated community development and participation in their health, socioeconomic and emotional development.

Chronister and McWhirter (2006) applied the empowerment process model and other components of the process to their study, varying the target of intervention, and investigating the effect on goal attainment. Their findings on BSE practice revealed increased participant knowledge with regard to barriers in the form of resources and environmental resistance to change (Constantine & Sue, 2006). This collaborative stance is imperative in facilitating

empowerment (Freire, 2000; Kieffer, 1984; Toporek & Liu, 2001; McKenzie, Neiger & Thackeray, 2009). In India, a study reported that such empowered women showed increased participation in household decision-making, gained respect in their families, increased savings, met family expenses, and showed improved political knowledge, among other improvements (Singh & Sahu, 2012). This was as a result of a women's empowerment programme in the form of a self-help group for promoting the economic development women (Yaro & Yakse, 2013).

Moyo and Ndlovu (2012) stated that women are excellent role models for children and youth, and that there is the need to increase capacity enhancement interventions to address the challenges of women's empowerment in rural areas. Beevi and Devi (2011) listed major constraints of women in their self-help groups as unwillingness to take up innovative schemes, difficulty in playing a dual role, and lack of confidence, team spirit, effective leadership, managerial skills, working capital and transport fares. Iniobong's (2010) study on empowerment activities of women's empowerment and non-government organisations showed that rural women participated in the activities of recognised and well-managed women's NGOs, which were also involved in activities that satisfied their need for survival and sustenance. These studies provided information on the need to empower women to make informed decisions on issues that affect their health, which forms the basis of the current study.

2.1.1 The Human Breast

The breast is a mammary organ of lactation which produces milk for the new-born baby. It is made up of lactiferous lobules. The acini cells in the breast produce milk, which passes through the lactiferous duct, stored in the ampulla that is situated directly in the areola part of the breast just before the nipple. Cancers of the breast start from the breast lobule and the last

part of the cells of lactiferous ducts. These lobules and ducts are situated in the fibrous and adipose tissue (fat) that forms the main bulk of the breast. The male breast and female breast are similar in structure, apart from the fact that the male breast tissue lacks the particular lobules, as there is no physiologic necessity for milk production from the male breast (ACS, 2012).

Yaro and Yakse (2013) explain that the adult breast is directly under the pectoralis muscle covering the rib cartilage. The breast tissue extends from the edge of the sternum (the firm flat bone in the middle of the chest) towards the middle axillary line (the centre of the axilla). The tail of breast tissue, which is called the "axillary tail of Spence", spreads into the axilla (ACS, 2011; Khokher, Qureshi & Chaudhry, 2012). Breast cancer can develop in the axillary tail, even though this might not appear to be in the breast proper. The breast tissue is surrounded by a thin layer of connective tissue called the fascia. The deep layer of this fascia is located beneath the pectoralis muscle, while the superficial layer is just under the skin. The breast is covered with skin, just as any other part of the body on the torso, and has sweat glands, hair follicles and other features. According to Alam (2006), a clinician usually examines the skin during palpation of the breast tissue when performing a breast examination.

The blood supply of the breast comes primarily from the internal mammary artery, which runs beneath the main breast tissue. The blood supply delivers nutrients, such as oxygen to the breast tissue. The lymphatic vessels of the breast flow in the opposite direction of the blood supply and drain into lymph nodes. Breast cancer moves from the lymphatic vessels and invades the lymph nodes (Alam, 2006). Most of the lymphatic vessels flow to the axillary lymph nodes, while a small number of the lymphatic vessels flow to the internal mammary lymph nodes, situated deep in the breast. Knowledge of this lymphatic drainage is significant because, when breast cancer spreads, it usually involves the first lymph node in

the chain of lymph nodes. This is called the “sentinel lymph node”, and this lymph node can be removed by a surgeon to prevent the cancer’s spread in a woman with breast cancer (Balogun & Owoaje, 2005).

2.1.2 The Aetiology of Breast Cancer

Cancer occurs because of mutations, or irregular changes, in the genes accountable for regulating the growth of cells and making people healthy. The genes can be found in every cell nucleus, which acts as the regulator room of each cell (Balogun & Owoaje, 2005).

Normally the cells in our bodies change themselves through an orderly process of cell growth: new cells take over when the former cells die out. However, over time, mutations can ‘turn on’ certain genes and ‘turn off’ others in a cell. The changed cell gains the ability to keep dividing without control or order, producing more cells just like it and forming a tumour (Alam, 2006).

A tumour can be benign (not dangerous to the patient’s health) or malignant (potentially dangerous). Benign tumours are not considered cancerous: their cells are close to normal in appearance; they grow slowly and do not invade nearby tissues or spread to other parts of the body. Malignant tumours, on the other hand, are cancerous. If left unchecked, malignant cells eventually spread beyond the original tumour to other parts of the body. The term ‘breast cancer’ refers to a malignant tumour that has developed from cells in the breast (ACS, 2011; Balogun & Owoaje, 2005). Usually breast cancer begins either in the cells of the lobules, which are the milk-producing glands, or the ducts, the passages that drain milk from the lobules to the nipple. Less commonly breast cancer can begin in the stroma tissues, which include the fatty and fibrous connective tissues of the breast. The disease is always caused by a genetic abnormality (a ‘mistake’ in the genetic material). However, only 5-10% of cancers are due to an abnormality inherited from the mother or father. About 90% of breast cancers

are due to genetic abnormalities that happen as a result of the ageing process and the “wear and tear” of life in general (Alam, 2006; ACS, 2011).

2.1.3 Importance of Breast Self-Examination in Preventing Breast Cancer

BSE involves a woman checking her breasts for changes (such as lumps or thickenings), and includes looking at and feeling the breast. Unusual changes are reported to a doctor. When breast cancer is detected in its early stages the chance of surviving the disease is greatly improved. BSE or regularly examining one’s breasts on one’s own can be an important tool in finding a breast cancer growth early, when it is more likely to be treated successfully. Not every cancer can be found in this manner, but it remains a critical step one in safeguarding oneself.

Alam (2006), ACS (2011) and Yaro and Yakse (2013), concur that BSE is a useful and essential screening strategy, especially when used in combination with regular physical examinations by a doctor and mammography. About 20% of the time breast cancer is found by physical examination rather than by mammography - hence the recommendation that all women routinely perform BSE as part of their overall breast cancer screening strategy.

Unfortunately, few women really want to do BSE, especially in developing countries (Balogun & Owoaje, 2005), and for many the experience is frustrating - they may feel things but not know what they mean. However, the more a woman examines her breasts, the more she will learn about them and the easier it will become for her to tell if something unusual is occurring (Khokher, Qureshi, & Chaudhry, 2012). It is therefore encouraged that BSE is made an essential part of taking care of oneself and lowering the risk of breast cancer.

The usual tips for BSE are as follows (ACS, 2011; 114; Khokher, Qureshi & Chaudhry, 2012):

- Try to get in the habit of doing BSE once a month to familiarise yourself with how your breasts normally look and feel. Examine yourself several days after your period ends, when your breasts are least likely to be swollen and/or tender. If you are no longer having periods, choose a day that is easy to remember, such as the first or last day of the month.
- Do not panic if you think you feel a lump. Most women have some lumps or lumpy areas in their breasts all the time. In the United States of America only 20% of women who have a suspicious lump biopsied turn out to have breast cancer.
- Breasts tend to have different ‘neighbourhoods’. The upper, outer area — near your armpit — tends to have the most prominent lumps and bumps. The lower half of your breast can feel like a sandy or pebbly beach. The area under the nipple can feel like a collection of large grains. Another part might feel like a lumpy bowl of cornmeal.
- What is important is that you get to know the look and feel of your breasts’ various neighbourhoods. Does something stand out as different from the rest (like a rock on a sandy beach)? Has anything changed? Bring to the attention of your doctor any changes in your breasts that last over a full month’s cycle, or seem to get worse or more obvious over time.
- You may want to start a journal where you record the findings of your BSE. This can be like a small map of your breasts, with notes about where you feel lumps or irregularities. Especially in the beginning this may help you to remember, from month to month, what is ‘normal’ for your breasts? It is typical for lumps to appear at certain times of the month but then disappear as your body changes with the menstrual cycle (if you are still menstruating). Only changes that last beyond one full cycle, or seem to get bigger or more prominent in some way, need your doctor's attention.

2.1.4 The Importance of Finding Breast Cancer Early

The ACS (2011) stated that the goal of screening examinations for early breast cancer detection is to find cancer before it starts to cause symptoms. Screening refers to tests and examinations used to find a disease, such as cancer, in people who do not have any symptoms. Early detection means using an approach that leads to breast cancer being diagnosed earlier than it might otherwise have been. Breast cancers that are found because they are causing symptoms tend to be larger and are more likely to have already spread beyond the breast. In contrast, breast cancers found during screening examinations are more likely to be smaller and still confined to the breast. The size of a breast cancer and how far it has spread are two of the most important factors in predicting the prognosis (outlook) of a woman with this disease (Alam, 2006). Early detection tests for breast cancer save thousands of lives each year. Following the ACS's (2011) guidelines (above) for the early detection of breast cancer can improve the chances that the disease is diagnosed at an early stage and treated successfully.

Parvani (2011) affirmed that breast awareness provides women with some knowledge about the breasts in order to fight breast disease and reduce morbidity but not the mortality. McCready, Littlewood and Jenkinson (2005) argued that "breast awareness provides women with some acknowledgement of the part they can play in being empowered to fight breast diseases, not in terms of statistics used for mortality but on the qualitative effects of reducing morbidity" (570-578). Mugivhi, Maree and Wright (2011) also reported that BSE enables women to take responsibility for their breast health. Thus, lack of knowledge of the signs and symptoms of breast cancer and of BSE itself invariably leads to presentation of advanced disease.

2.1.5 Breast Self-Examination Procedure

This procedure is performed before a large mirror, as well as in the shower and while lying down. To start with, the woman should stand in front of a large mirror in a well-lit room, undressed from the waist up. She should then follow the procedure below (ACS, 2011, p.115):

- 1 Look at your breasts. Do not be alarmed if they do not look equal in size or shape - most women's breasts are not. With your arms relaxed by your sides, look for any change in size, shape, or position, or any change to the skin of the breasts. Look for any skin puckering, dimpling, sores, or discoloration. Inspect your nipples and look for any sore, peeling, or change in the direction of the nipples.
- 2 Place your hands on your hips and press down firmly to tighten the chest muscles beneath your breasts. Turn from side to side so you can inspect the outer parts of your breasts.
- 3 Then bend forward toward the mirror. Roll your shoulders and elbows forward to tighten your chest muscles. Your breasts will fall forward. Look for any change in the shape or contour of your breasts.
- 4 Clasp your hands behind your head and press your hands forward. Turn from side to side to inspect your breasts' outer portions. Remember to inspect the border underneath your breasts. You may need to lift your breasts with your hand to see this area.
- 5 Check your nipples for discharge (fluid). Place your thumb and forefinger on the tissue surrounding the nipple and pull outward toward the end of the nipple. Look for any discharge. Repeat on your other breast.

The second part of the procedure is done in the shower. Here, it is time to feel for changes in the breast. It is helpful to have your hands slippery with soap and water during the procedure:

- 1 Check for any lumps or thickening in your underarm area. Place your left hand on your hip and reach with your right hand to feel the left armpit. Repeat on the other side.
- 2 Check both sides for lumps or thickenings above and below your collarbone.
- 3 With hands soapy, raise one arm behind your head to spread out the breast tissue. Use the flat part of your fingers from the other hand to press gently into the breast. Follow an up-and-down pattern along the breast, moving from bra line to collarbone. Continue the pattern until you have covered the entire breast. Repeat on the other side.

As stated above, the third and last part is done while you lie down on your back, facing up. You must place a small pillow or folded towel under your right shoulder. Put your right hand behind your head and place your left hand on the upper portion of your right breast with fingers together and flat. Body lotion may help to make this part of the examination easier.

- 1 Think of your breast as the face of a clock. Start at 12 o'clock and move toward 1 o'clock in small circular motions. Continue around the entire circle until you reach 12 o'clock again. Keep your fingers flat and in constant contact with your breast. When the circle is complete, move in one inch (about 2.5cm) towards the nipple and complete another circle around the clock. Continue in this pattern until you have felt the entire breast. Make sure to feel the upper outer areas that extend into your armpit.
- 2 Place your fingers flat and directly on top of your nipple. Feel beneath the nipple for any change. Gently press your nipple inwards. It should move easily.

It should be noted that cancerous tumours are more likely to be found in certain parts of the breast than in others. If you divide the breast into four sections, the approximate percentage

of breast cancers found in each area are (in clockwise pattern): 41% in the upper, outer quadrant; 14% in the upper, inner quadrant; 5% in the lower, inner quadrant; 6% in the lower, outer quadrant; and 34% in the area behind the nipple. This means that almost half of the incidences occur in the upper, outer quadrant of the breast, towards the armpit. Some physicians refer to this region as the ‘tail’ of the breast and encourage women to examine it closely (ACS, 2011).

The choice of this framework is based on the fact that several studies have stressed that discourses on women’s health issues should begin with an empowerment process - whether in the form of information/knowledge building or the strengthening of their socio-economic bases (Abdul, 2000; Ajayi & Adewole, 2002; Adebamowo & Adekunle, 2006; Oluwatosin & Oladepo, 2006; Afolayan, 2008; Ravichandran, Al-Hamdan, & Mohamed, 2011). In areas such as education, job opportunities, financial resources and even family decision-making on health matters, women all over the world cannot match their male counterparts. Research on the health status of women in developing countries has shown widespread inequality between the genders (Vlassoff, 2007). This inequality between women and men takes the form of economic inequality as well as differentials in education, health care, rights, access to a number of essential resources and differences in power in all spheres of life. In 1994 at the International Conference on Population and Development in Cairo development organisations agreed that women’s empowerment is necessary for important development outcomes (Abdul, 2000):

The empowerment and autonomy of women, and the improvement of their political, social, and economic and health status, constitute an important end in themselves and one that is essential for achieving sustainable development (UNDP, 2012).

Gender equality and women's empowerment are necessary for the improvement of the well-being of women and men, for social justice and the achievement of development goals. Women's empowerment is typically discussed in relation to political, social and economic empowerment, but the economic empowerment of women has received particular attention and is often cited as one of the most important ways to promote gender equality, reduce poverty and improve the well-being of not only women, but also children and human societies (Anyanwu, 2000). Economic empowerment involves women's participation in economic activities, as well as economic decision-making and power. Men are traditionally given the decision-making role over the women. However, women's empowerment can change the gender imbalance and help women to take action.

Economic independence, or access to inherited or self-generated income, is considered as the major means of empowerment of women. This is true to a great extent as economic dependence is the worst form of dependence (Ajayi & Adewole, 2002)., women's economic empowerment is attempted and advocated as a strategy of by many governments in third world countries to enable women to be more independent. Women's income in their families is important regarding their full identity and powers in all spheres of their life. Unfortunately, the prevailing value system puts several hurdles in the path of women with regard to their equality and decision-making power through empowerment.

2.2 Frameworks Underpinning the Study

Two conceptual frameworks were used in this study: the Kieffer empowerment process and the Health Belief Model. Items of the Health Belief Model were used in formation of the questionnaire for the survey part of the study.

2.2.1 Women's Empowerment: A Conceptual Framework

Empowerment is “a process to increase self-reliance, to assert the independent right to make choices and to control resources which will assist in challenging and eliminating subordination” (Whatley, 2010). According to McWhirter (1991), empowerment is a process by which organisations or groups that are powerless, become aware of the power dynamics in their life context, develop skills and capacity for gaining some reasonable control over their lives and exercise this control without infringing on the rights of others while supporting the empowerment of others in the wider community. Empowerment refers to increasing the spiritual, political, social or economic strength of individuals and communities. It often involves the empowered developing confidence in their own capacities (Whatley, 2010). This definition speaks to the necessity of women to feel confident in caring for themselves and their families, by being empowered. Women must have ability to make decisions for themselves, but they must also seize the opportunity and take responsibility. In other words, empowerment is not just a process, but also a state of being that results from the empowerment process.

Empowerment as a Process and Outcome

Freire (2000) viewed empowerment as both a process and an outcome. Empowerment is a process where the purpose of an educational intervention is to increase one's ability to think critically and act autonomously. Empowerment is the outcome when an improved sense of self-efficacy occurs as a result of the process. However, while empowerment is an outcome, it is not a dichotomous variable - in that one is or is not empowered. Instead, empowerment is a continuous variable, more similar to a direction than a location. With respect to BSE, the strength and direction of change is an indication of the intervention's effectiveness.

As an analogy, if the goal of compliance-based education is to go east, then the goal of empowerment-based education is to 'go west'. The question becomes: How far west must one go to be considered western? Our answer is as far west as one is willing and able to go. Thus, the process and outcome are different for each person.

Empowerment-based interventions include both a process and an outcome component. The process component occurs when the true purpose of the intervention is to increase the patient's capacity to think critically and make autonomous, informed decisions. The outcome component occurs when there is a measurable increase in the women's ability to make independent and informed decisions. The World Bank's (2002) description of empowerment nicely sums up this viewpoint: "Empowerment is the expansion of assets and capabilities of poor people [in this case, women] to participate in, negotiate with, influence, control, and hold accountable institutions that affect their lives" (v). Empowerment refers to the process by which an individual or group overcomes their own ideas and the external barriers that oppress them (conscientisation), as well as the outcome of this process – i.e. being empowered (consciousness). The literature on women's empowerment suggests that empowerment involves choice and control; that it is a process and an outcome; and that empowerment occurs across a number of domains and dimensions. Therefore, empowerment involves thoughts of where it occurs and the dimension in which it occurs, the context in which decisions are made, the power structures being challenged, and the characteristics of the women or communities involved in the process. It is a process, from the awareness of power structures that subordinate women, to the questioning of systems of control, to making active changes and asserting power, and to empowerment as an outcome, as a state of being.

In Nigeria gender roles exist within families; and there are no clear boundaries between women's domestic work and work outside the home (Afolayan, 2008). Women are

responsible for at least 75–80% of the farm labour, as well as for the bearing, rearing, and nursing of the next generation.

Girls in Nigeria have traditionally been homemakers and wives, and education has been viewed as unnecessary for girls in order to perform their family duties (Gundappa, 2014). Despite challenges, the prospect of empowering rural women in Nigeria is high. Indicators of women empowerment, which include household decision-making, freedom of movement, control over resources, education and others, are on the increase. Therefore, as the prospect is high, the lives of rural women in Nigeria can change for the better and contribute meaningfully to the development of the country.

A large paradigm shift is required, especially in a developing country like Nigeria. Hence, the need to empower women becomes imperative in all areas of their lives, especially on health and behavioural issues. According to the United Nations Development Programme (2012-2013), women's empowerment has five components: women's sense of self-worth, their right to have and make choices, their right to access opportunities and resources, their right to have the power to control over their own lives both within and outside the home, and their ability to influence the direction of social change to create a more just social and economic order, nationally and internationally. These components lend credence to the need to ensure that women have knowledge, which is power, or the need to develop the right attitude and/or strengthen the right attitude in this regard. The ability for anybody to make decisions is power. Bhengu (2010) reported that women's empowerment through formation of women's groups, encourage an atmosphere of sharing and support among them. It enables them to trust each other, share their problems and solve them together. Outcomes of the current research revealed an improvement in women's realisation of their rights, self-confidence, reliance, and partnerships with health care givers. The formation of women's groups facilitates community development and participation in their health, socio-economic

and emotional development issues. At the individual level, powerlessness can be seen as the expectation of the person that her actions will be ineffective in influencing the outcomes of life events (Kieffer, 1984; McKenzie, Neiger & Thackeray, 2009).

Kieffer's (1984) empowerment process examines personal empowerment as a process. He describes empowerment as a development process which includes four stages: entry, advancement, incorporation and commitment. There are more recent empowerment processes, such as the community health approach (Marks et al., 2005; McKenzie et al., 2009) but Kieffer's empowerment process was chosen as the process for this study, because it is in line with the Participatory Action Research design used in the current study. The process is discussed below in light of the empowerment programme on BSE. The era of entry is the stage during which the participants explore the structure to reach a point of consciousness of their powerlessness. The participants in this study are rural women who are powerless in terms of awareness of BSE, practice and challenges or barriers to practising BSE in the community, in spite of the occurrence of breast lump diagnosis in their community. In the advancement stage, the woman begins to experience greater understanding and becomes inquisitive with the aim of knowing. The incorporation stage involves the woman's interest to appeal for intervention to empower her through health information and skills acquisition. Commitment is the final stage of Kieffer's process. At this point, the woman is committed to integrating the actions of information and skills acquired in the third stage into practice.

According to the National Empowerment Partnership Programme (2008) an empowered person is one who is confident, feels inclusive, organised, and cooperative and feels that she can be persuasive. There are five dimensions of putting certain development values into action, which are learning (recognising the skills, acquiring knowledge, building on the knowledge and what has gone before); and participation. Participatory contribution of people on the issues that affect citizens and cooperation, involves working together to

identify planned actions, inspiring interaction and connections among the communities and organisations, and promoting social justice and control over decision-making processes as it affect them. Thus, there is the need to empower women to make decisions on their health - and this is the purpose of this study.

2.2.2 Relevance of Kieffer's Empowerment Process to the Study

In general, the model can be used as a starting-point in specifying the empowerment process of a context - identifying the ways in which components manifest. For example, in pursuit of a particular empowerment goal, what type of knowledge is required? What actions can be taken by the group? This model differs from prior work on empowerment because of its improved specificity of variables in the empowerment process (Kabeer, 2008). The process model moves from the era of entry to advancement, incorporation and commitment, to explore the interaction between the empowerment processes at individual and group levels. It focuses on empowerment at the individual and group levels, and it is addressed by a combination of practitioners and clients through interviews and focus groups.

Relevant areas of research in empowerment lie in developing and facilitating the process of empowerment. Such research is an opportunity to evaluate how interventions influence particular components of the process, and how the changes relate to other components. The current study focuses on skill building in BSE practice. Its evaluation will therefore not only centre on the impact of the programme on practice, but also on how it relates to actions, developments and related goals of the clients.

2.2.3 Health Belief Model

The Health Belief Model proposes that a person's health behaviour depends on his perception of four critical areas: the severity of a potential illness, his susceptibility to that illness,

benefits of taking a preventive action, and barriers to taking that action (Croyle, 2005). The predictions of the model constitute the survey component of the current study, that is, the exploration of the knowledge, practice and barriers to BSE, and the possibility of an individual undertaking recommended preventive and curative health actions. The model stipulates that health-related behaviour is influenced by a person's perception of the threat posed by a health problem and by the value associated with his/her action to reduce that threat. The Health Belief Model is also a model for addressing problem behaviours that stir up health concerns; it explains that when people believe they are in danger, they are likely to seek solutions about their health. The Health Belief Model has been adapted to explore a variety of long- and short-term health behaviours, such as BSE.

2.2.4 Scope and Application of Health Belief Model to the Study

The Health Belief Model has been applied to a wide range of health behaviours and populations to explain self-care activities and illness prevention strategies. At its core lies the theory that an individual will take action to prevent, control and treat a health problem, if they perceive the problem to be severe; perceive that the action they will take will produce positive outcomes; and perceive few barriers to taking those actions. Its core assumptions for the rural women, for example, are the following:

- She feels that a negative health condition can be prevented,
- She has positive expectations that by taking action (such as BSE), she will avoid the negative condition and prevent breast cancer,
- She believes that she can successfully practice the recommended action (BSE) to detect any abnormalities early, and thus prevent the negative health condition.

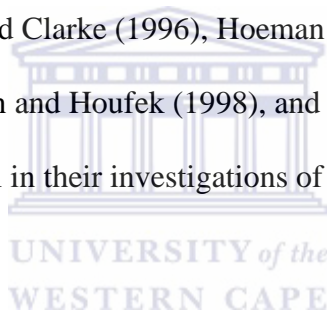
According to Croyle (2005) and Canbulat and Uzun (2008), the Health Belief Model comprises six major concepts: perceived personal exposure to a health condition

(susceptibility); perceived personal harm from the condition (seriousness); perceived positive attributes of an action (benefits); and perceived negative aspects related to an action (barriers); confidence in one's ability, and health motivation. In relation to the current study, therefore, these concepts are perceived susceptibility (opinion of being at risk of breast cancer); perceived seriousness of breast cancer and its consequences; perceived benefits (that is, efficacy of BSE to reduce susceptibility to breast cancer); and perceived barriers (opinion of what constitute impediments to BSE). These concepts were said to account for women's readiness to act in order to address health-related behaviours.

Rosenstock, Strecher and Becker (1988) and Glanz, Rimer and Lewis (2002) identified the following additional concepts: health motivation, which is defined as the belief and degree of interest in general health; and confidence, which is the conviction of an individual that an action will achieve a desirable outcome. Also, a cue to action (stimulus) is needed to trigger protective behaviour. Such a cue to action could be internal, such as perception of a body's state, or external, such as the influence of mass media. Cues, along with demographic and structural variables, may trigger an individual's perception of susceptibility and seriousness and in turn may influence his/her behaviour with regard to the desired practice. The Health Belief Model thus stipulates that health-related behaviour is influenced by a person's perception of the threat posed by a health problem and by the value associated with his or her action to reduce that threat (Canbulat & Uzun, 2008). The model supposes that a woman who perceives that she is susceptible to breast cancer and that the disease is of a serious nature, would be more likely to perform regular breast examinations. Similarly, a woman who perceives more benefits to BSE and fewer barriers to it would be more likely to practice it than those who have no such perception. A woman with an internal cue (body perception) or who is exposed to an external cue (e.g. the positive influence of a

health care provider or the media) would also opt for BSE, as would a woman who wants to improve her health and is confident of positive results (Champion & Scott, 1997).

Canbulat and Uzun (2008) reported that the Health Belief Model has frequently been applied to breast cancer screening studies, and that it has been shown to have a positive impact on the understanding and practice of BSE. In the current study the Health Belief Model scale was used in the development of a questionnaire for data collection, called the Champion Health Belief Scale Model (CHBSM) for breast cancer screening behaviour. The CHBSM has been used in several studies as a theoretical framework on BSE and other breast cancer detection behaviours (Hoeman & Ku, 1996; Barron, Houfek & Foxall, 1997; Mikhail & Petro-Nustas, 2001; Al-Abadi, 2001). The current study therefore adopted it as conceptual framework. Lu (1995), Savage and Clarke (1996), Hoeman and Ku (1996), Champion, Foster and Menon (1997), Foxall, Barron and Houfek (1998), and Canbulat and Uzun (2008) have also used the Health Belief Model in their investigations of various factors associated with or affecting BSE practice.



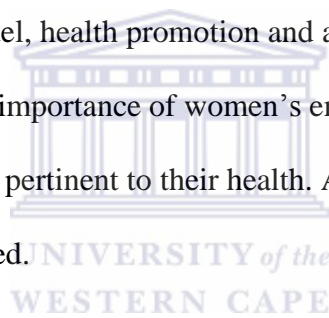
2.2.5 Relevance of the Health Belief Model to the Study

Theoretically, for health-promoting behaviour to arise a menace must be recognised - for instance, a woman must become aware of her risk of breast cancer. Increase in perceived susceptibility has been linked to an increase in BSE (Glanz, Rimer & Lewis, 2002).

Perceived benefits refer to the perception that positive outcomes will occur as a result of a change in behaviour (such as BSE practice). The benefit leads to early discovery of breast cancer and reduction in its incidence. Perceived barriers are negative attributes related to the unwillingness or inability to take health action in the presence of perceived threat.

Theoretically, perception of more benefits and less barriers will affect BSE practice. Several studies have shown the usefulness of perceived benefits and barriers in predicting BSE

practice. The studies linked increased benefits and reduced barriers to increased practice of health behaviours (Champion & Strecher, 2002; Thomas, Gao & Ray, 2002; Canbulat & Uzun, 2008). Self-efficacy and confidence concern the ability to successfully perform an action so as to determine the objective of health-promoting behaviour. One's confidence in performing BSE will promote its performance. The higher the level of confidence in BSE practice, the higher the likelihood of practising BSE regularly. Those who intend to perform preventive health measures are likely to practice BSE regularly. In the current study, therefore, all the concepts of the Health Belief Model related to breast cancer screening behaviours were used to develop the questionnaire for data collection for Phase 1 ('observe'), which focuses on the understanding, practice and barriers of Breast Self –Examination. In addition to the Health Belief Model, health promotion and an education philosophy need to be considered that emphasise the importance of women's empowerment to enhance the adoption of new behaviour that is pertinent to their health. Also, for change of attitude, the stages of change will be considered.



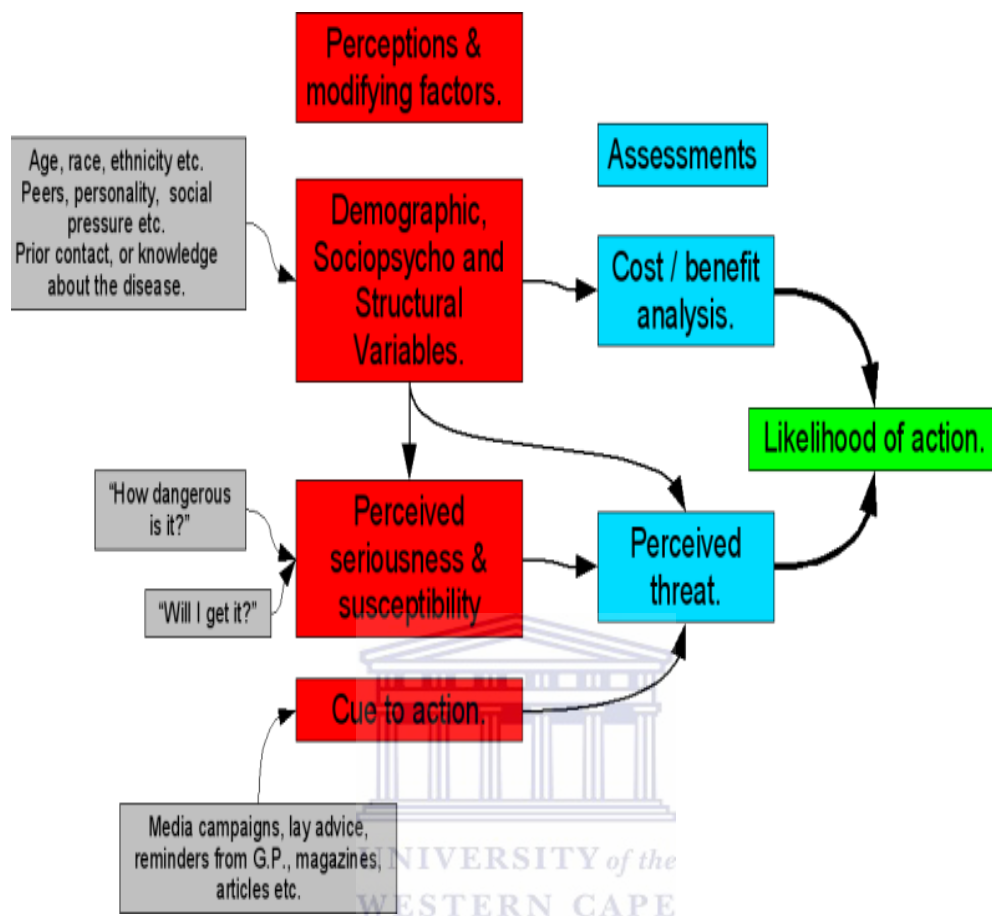


Figure 2.1 Health Belief Model (source: www.o-wm.com, 1996).

2.3 Philosophy of Health Education and Promotion

Health is made up of all aspects of a person's life (Ekefre, Ekanem & Obia Ekpenyong, 2014). It is a combination of the mental, physical and spiritual aspects that make up a whole human being. However, it is believed that mental and spiritual health is vital to physical health. Without these two, the other may be impossible to achieve. The purpose of health promotion is to educate and promote the health of the citizenry. The researcher views education as the key to health at both a personal and community level. It is important that the public receive information on wellness and maintaining health, in order to reach its health

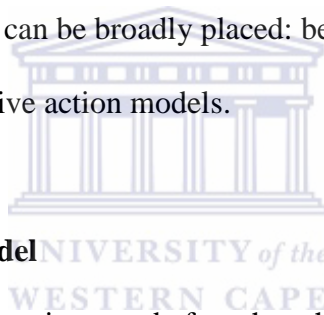
goals. It is just as important for those in positions of authority to understand the costs of disease - mental, physical or spiritual - on the population as a whole.

Health educators and the nurses say that each person is unique and has his/her own experiences that affect behaviours, attitudes, having respect for others' beliefs and willingness to learn and ultimately, health. These health educators believe that negative behaviours and experiences can be overcome with education and trust. They are mentors that need to be available to share in the setbacks and successes of those that they are educating. The main focus in health education is to empower individuals to make health choices that enhance their lives and mental well-being (Koelen & Lindstrom, 2005). Support is a key to individual change. The role of the researchers is not only to offer that support, but also to ensure that a support system of outside friends and family members is in place to assist individuals on finding success in the changes they seek to make in their lives. Finally, a balance between all aspects of a person's life is important. Healthy habits and value defining is vital to helping one find that balance with the participants in their natural setting (Essen, & Englander, 2013). Health promotion can be defined as the process of empowering people to make healthy lifestyle choices and motivating them to become better self-managers (Onzulike, 2007). To achieve this, health promotion approaches should focus on patient education, counselling and support mechanisms. Health promotion approaches involve education and counselling programs that promote healthy activities good nutrition and health behaviour such as BSE aimed at the early detection and prevention of breast cancer. The health promotion model (HPM) focuses on helping people to achieve higher levels of well-being. It inspires health professionals to provide positive resources to assist patients in achieving behaviour-specific changes. The goal of the HPM is not only about helping patients to prevent illness through their behaviour, but also to consider ways in which a person can

pursue improved health or ideal health. Pender, Murdaugh and Parsons (2011) state that HPM has four assumptions:

- Individuals strive to control their own behaviour.
- Individuals work to improve themselves and their environment.
- Health professionals, such as nurses and doctors, comprise the interpersonal environment, which influences individual behaviours.
- Self-initiated change of individual and environmental characteristics is essential to changing behaviour.

The types of health promotion programmes that students and schools implement reflect the health education models on which they are based. There are three main categories in which health education models can be broadly placed: behavioural change models, self-empowerment models and collective action models.



2.3.1 Behavioural Change Model

The behavioural change model came into use before the other two approaches. Many early health campaigns were based on this model, and it is still widely used, in combination with other models, as part of comprehensive health campaigns (Nutbeam, 2000; Colquhoun, Goltz, & Sheehan, 1997; French & Adams, 1986).

The model involves an anticipatory approach and draws attention to routine behaviours that impact on health. It seeks to encourage individuals to adopt healthy behaviours, to use preventive health services, and to take responsibility for their own health. It encourages a medical view of health that may be characterised by a tendency to 'blame the victim'. The behavioural change model is founded on the belief that providing people with information will change their beliefs, attitudes, and behaviours. This model has been shown to be futile in

many cases because it ignores factors in the social environment that affect health, including social, economic, cultural, and political factors. The Behavioural Change Model has the following characteristics (Nutbeam, 2000; Colquhoun, Goltz, & Sheehan, 1997; French & Adams, 1986).

- Focus on health workers' perceptions of health needs – suggesting that 'experts' know best;
- Transmission of knowledge – increasing people's knowledge of the factors that improve and enhance health;
- Education 'about' health;
- Use of health campaigns;
- Use of the transmission approach to teaching, where the learners are largely passive;
- Can show healthism;¹
- May have a 'moralistic' tone;
- Emphasis on disease and other medical problems - therefore tends to be negative and deficit-focused;
- Focus on risks rather than on protective or preventive factors - taking a 'Band-Aid' approach;
- The model tends not to reflect the socio-ecological perspective;
- Does not take into account determinants of health or consider who is responsible for health; and

¹ Healthism is a set of assumptions based on the belief that health is solely the responsibility of the individual embracing a conception of the body as a machine that must be maintained and kept in tune, in a similar way to a car or motorbike

- May imply 'victim blaming'.²

2.3.2 Self-Empowerment Model

This approach (also known as the Self-Actualisation Model) seeks to develop the individual's ability to control their own health status as far as possible within their environment. The model focuses on enhancing an individual's sense of personal identity and self-worth and on the development of 'life skills', including decision-making and problem-solving skills, so that the individual will be willing and able to take control of their own life (Nutbeam et al., 2000). People are encouraged to engage in critical thinking and critical action at an individual level. This model, while often successful for individuals, is not targeted at population groups and is unlikely to affect social norms. The Self-empowerment model has the following characteristics:

- The development of a sense of identity;
- Promotion of reflection in relation to others and society;
- Encouragement to reflect and change views;
- Clarification of values;
- Education of people to teach them where, when, why, and how to seek help;
- Encouragement of independence;
- Use of critical thinking and critical action in relation to oneself;
- Use of the action competence process for the individual, recognising determinants that may be beyond their control;

² Victim blaming is a devaluing act where the victim of a crime, an accident, or any type of abusive maltreatment is held as wholly or partially responsible for the wrongful conduct committed against them. Victim blaming can appear in the form of negative social reactions from legal, medical, and mental health professionals, as well as from the media and immediate family members and other acquaintances

- Fostering of resilience and empowerment at a personal level;
- Enhancement of self-awareness;
- Focus placed largely on the individual; and
- Creation of opportunities to celebrate individuality.

2.3.3 Collective Action Model

This is a socio-ecological approach that takes account of the interrelationship between the individual and the environment (Nutbeam et al., 2000). It is based on the view that health is determined largely by factors that operate outside the control of individuals. This model encompasses ideas of community empowerment, which requires people individually and collectively to acquire the knowledge, understanding, skills, and commitment to improve the societal structures that have a powerful influence on their health status. It engages people in critical thinking in order to improve their understanding of the factors affecting individual and community well-being. It also engages them in critical action that can contribute to positive change at a collective level (Nutbeam et al., 2000). Characteristics of the collective action model include:

- Encouragement democratic processes and participation 'by all for all';
- A client-centred/constructivist approach to teaching and learning;
- Consideration of determinants of health;
- Emphasis on empowerment of all participants;
- Education 'for' health;
- Use of a social action or action competence process to work with others;
- Use of a whole community/school development approach;
- A view of teachers and students as social agents;

- Use of critical thinking and critical action in relation to the individual, others, and society;
- A holistic approach;
- Based on authentic needs; and
- Fostering of resilience at wider community and societal levels – not just at an individual level.

2.3.4 Examples of the Use of Models in the Context of Breast Self-Examination

How the behavioural change model would be likely to be used in the context of BSE according to (Numbean et al. 2000).

- Using slogans, media messages, and pamphlets

How the self-empowerment model would be likely to be used in the context of BSE:

- Providing access to information by health teaching, demonstrations, programmes and support groups to help women to practise BSE.

How the collective action model would be likely to be used in the context of BSE:

- Working with vulnerable groups to analyse the issues according to the relevant determinants of health (e.g. the impact of gender, cultural deprivation, poverty, and social discrimination).
- Engaging with a range of individuals and groups, including those affected, to identify needs, plan actions, and develop policies and support structures to promote BSE across the population, providing support to identified groups.

Given the importance of determinants of health, the use of a collective action model is more likely to achieve healthy outcomes. There needs to be a determination of the people concerned to change and imbibe healthy behaviours, both for individuals and for groups

within society, especially in a rural community like the Iddo community that is being studied. The Stages of Change model is discussed below.

2.4 Stages of Change Model

The Stages of Change Model proposed by Prochaska and DiClemente (1984), is arguably one of the most dominant models of health behaviour change. This model outlines several steps in the behavioural change process, and assists the researcher in gauging an individual's readiness to act on a new healthier behaviour, and provides strategies or processes of change to assist someone in moving through the stages of change toward action and long-term maintenance (i.e. sustained change).

The model broadly suggests that people can cycle in and out and around several times before sustained change is realised and then maintained for the long term.

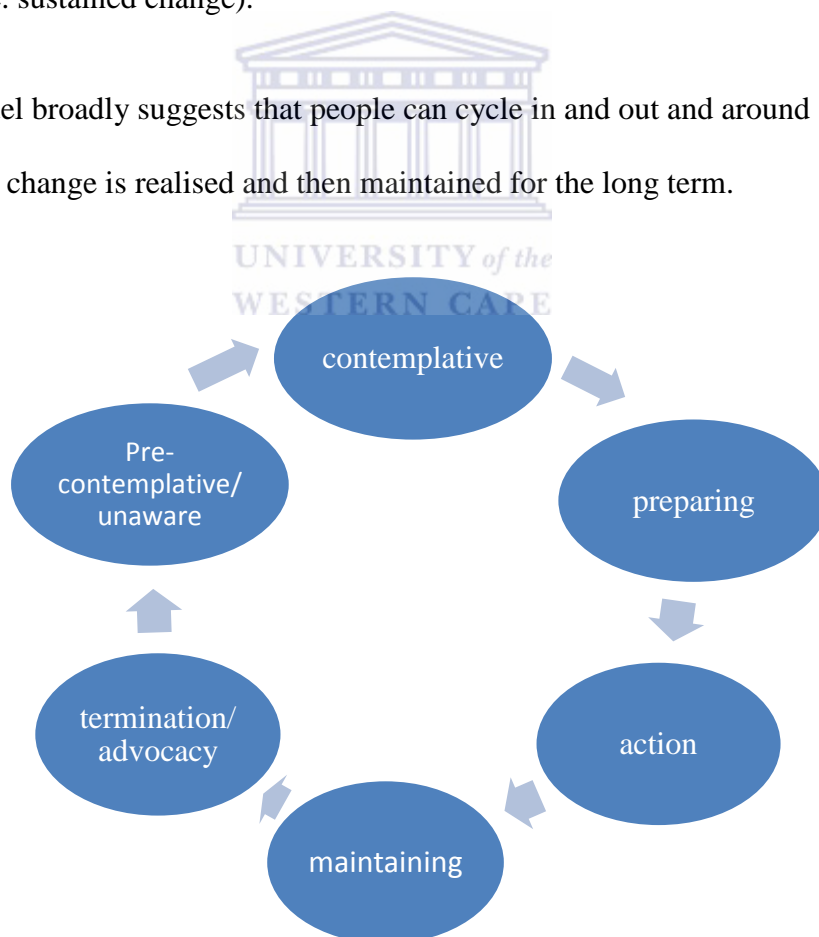


Figure 2.2 Stages of Change Model (Prochaska & DiClemente ,1984)

2.4.1 The Stages of Behaviour Change

According to the Stages of Behaviour Change Model proposed by Prochaska and DiClemente (1984), the following six steps make up the complex process a person uses to change their habits and behaviours and integrate changes into their lives:

1. Pre-contemplative/unaware
2. Contemplative
3. Preparing
4. Action/trying
5. Maintaining
6. Termination/advocacy/transcendence.

Pre-contemplative/unaware

In this stage, people are not interested in change, can't see the need to change and have no intention of doing anything differently. They defend their current behaviour and are not aware that their life could be better. This group does not see being unaware as a real issue for them. They tend to avoid information, discussion or even thought about change and the need for it. Some observers would characterise this group as 'resistant', 'unmotivated', or 'in denial' and not focused on the need to change or the actual change itself.

Contemplative

During this stage people start to think about an issue and the possible need to make some changes. They recognise that there is a problem and that they can and should do something to make their lives better. There may have been a trigger event, such as an older person who is a friend or neighbour having had a bad fall, or some other form of prompt that starts the

process of considering change. For example, people could be motivated to get their eyes checked or have a medication review. This group is now beginning to see that their behaviour needs changing. People in this group are often seen as procrastinators and ambivalent; however, what they are actually doing is weighing up the pros and cons (including the costs and benefits) of any possible behaviour change. Giving up an enjoyed behaviour causes them to feel a sense of loss, despite the perceived gain. At this stage people are very open to information and scour sources for options and strategies

Preparing

A change is about to happen. The person concerned has realised how serious their situation is, and has made a decision or a commitment to change and is currently completing any 'pre-change' steps with a view to making the required change within the next month. An example would be finding out details of local physical activity classes and working out which public transport option to use. This stage is also an information-gathering period. It is typified by determination, making plans, introspection about the decision to change, as well as a reaffirmation of the need and desire to change. This is typically a period of transition. It is not seen as a stable time and is usually quite short.

Action/trying

This stage applies to those people who have made real and overt changes or modifications to their lives and are starting to live their 'new' life. While the chances of relapse and temptation are very strong, there is also openness to receiving help and support. This stage is the 'willpower' stage, and short-term rewards to sustain motivation are commonly used. This group is also prone to analysing any behaviour changes to enhance their self-confidence and

to help make better plans to deal with either personal or external pressures. Usually after about six months the person moves from the action stage to the maintenance stage.

Maintaining

By this stage people are working to consolidate any changes in their behaviour, to maintain the 'new' status quo and to prevent relapse or temptation. The former behaviour is now seen as no longer desirable, and a number of coping strategies have been put in place and are working. This group needs to be patient and avoid personal and environmental temptations. There is a need for them to remind themselves of the progress that has been made already and to stay on the course of change. The risk of lapsing is substantially less than in earlier stages

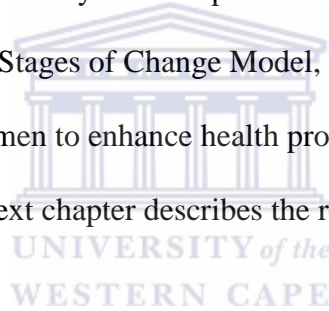
Termination/Advocacy/Transcendence

This stage was added to the model by researchers seeking to build on the initial work of Prochaska and DiClemente (1984). This 'new' stage is the continuing part of any behaviour change, and includes the understanding that going back to old habits or behaviours would 'feel weird' and that former problem behaviours are no longer perceived as desirable. This stage can also have an element of advocacy about it, with some people committed to spreading the word to their neighbours, family members or the public at large. This sort of advocacy plays an important part in helping to move other people along the behaviour change path and needs to be encouraged and supported. During this stage relapse can occur, but it is not seen as a failure but rather as a learning opportunity to help strengthen coping strategies and support mechanisms.

The Stages of Change Model proposed by Prochaska and DiClemente (1984) helps to assist in the consideration of ‘where’ in the cycle of change an individual may be, in order to support them in moving through these stages toward a new behaviour.

2.5 Chapter Summary

This second chapter explains the literature review on issues related to reast Self-Examination, the breast structure, breast cancer prevention, the aetiology of breast cancer, the step-by-step procedure of BSE, women’s empowerment and the development process of an empowerment programme. The chapter further provides the conceptual frameworks underlying the studies, which are the Kieffer empowerment process, and the Health Belief Model, as well as discussing their applicability to the study. The chapter also discusses the philosophy of health education and promotion and the Stages of Change Model, as the study is looking at health information to be imparted to women to enhance health promotion and change behaviour towards a healthy lifestyle. The next chapter describes the research study methodology.



CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter discusses the methodology used in the study, presented in two sections. The first section provides the rationale and justification for the choice of methodology, the paradigmatic assumptions and a review of the objectives of the study. The choice of research approach is explained, stating the impact of the nature and characteristics of action research on the choice and the situation of action research in a research paradigm. The Participatory Action Research design is used to accomplish the objectives of the study. Participatory Action Research is discussed in four phases, which are observe, reflect, plan and act.

3.1 Research Paradigm

A paradigm guides the direction of research. Which paradigm position a researcher adopts depends on a number of factors, such as profession, 'tradition', understanding (knowledge base), cultural beliefs and hierarchy. No single theory, paradigm or framework alone can address all aspects of nursing and midwifery research nor are any of these superior to another. Therefore 'theoretical pluralism' exists, where many factors decide which position the researcher adopts and the nature of the research undertaken (Graham, 2002; Weaver & Olson, 2006).

From a health professional perspective the study of individuals' responses to disease, treatment and recovery is a large part of our role. Philosophical beliefs about human/environment relationships, and what defines knowledge of these areas, are vital to such practice (Leddy, 2006). Unique experiences or transferable findings form the basis of decision-making for identifying whether a qualitative or quantitative (or both) research

method should be used. An explanation of the classifications of research paradigms follows below. These are: positivist - reductionist; empirical; critical - emancipatory; and interpretive - naturalistic.

3.1.1 The Positivist Approach

The term positivist or 'positivism' refers to a philosophical position that reflects the traditional scientific approach of objective observation, prediction and testing of causal relationships (Maggs-Rapport, 2001). This paradigm is representative of quantitative research approaches. Positivism (or modernism) is a broad cultural reflection of rationality and known science. The related term 'determinism' (reductionism) describes the fact that certain investigated phenomena do not occur by chance (Bunniss & Kelly, 2010). Instead, they have predisposing causes that are known to us.

From the point of view of determinism, it follows that, if a person has understanding and practises some healthy behaviour, there is the assurance of early detection of diseases and prompt treatment to prevent mortality. Knowledge and practice of BSE will detect breast cancer early and prevent its occurrence. 'Empirical-analytical' or 'logical positivism' are equivalent terms used to describe the origins and belief system of the quantitative research paradigm. Another related concept of quantitative research is that of 'deductive reasoning'. This describes a logical thought process whereby research hypotheses are derived from theory, and where reasoning moves from the general (what is already known) to the particular issue being tested.

However, this concept is not favoured by all, especially where supporters of determinism adhere to strict and rigid principles whereby 'pure' positivism is championed. Labels attached to this paradigm, such as 'proper', 'realist', 'hard' and 'scientific', support this critique.

Consequently, the ‘post-positivism’ (or post-modernism) movement has developed as a less rigid position that acknowledges the limited nature of ‘complete or total objectivity’ (Creswell, 2014; Mack, 2010). Phase 1 of this study, which explores the understanding, practice and barriers to BSE, uses a quantitative approach, while a qualitative design is used for phases 2 and 3 and a quantitative approach for phase 4, which involves data collection.

3.1.2 The Critical Approach

Critical approaches generally use qualitative methods to examine phenomena of interest. Both critical and interpretive approaches are viewed as post-positivist (Creswell, 2014; Mack, 2010). They are developed from researchers wishing to find alternatives to counter and balance out the positivist tradition already described. These approaches generally use research methods operating within a social change context, and therefore often with a post-modern stance that includes questioning the status quo of social institutions. Consequently, the researcher adopts a position that is free from the limitations of tradition and seeks to minimise the ‘distance’ between the researcher and the study participants, which is one of the reasons for this researcher’s choice of a natural-setting approach of study.

Critical approaches usually look to encourage empowerment and equality for research participants and to challenge and change social structures. Action research, for instance, is a critical inquiry that describes and interprets social situations and, in doing so, aims to improve social division/inequality through participant involvement. It is essentially a critique of existing social situations, via collaboration and partnership, in order to generate social change (Williamson & Prosser, 2002).

3.1.3 The Interpretive Approach

Interpretive approaches to research aim to describe, explore and generate meaning within a social or practice context. The most common post-positivist examples of this approach are phenomenology (hermeneutics), grounded theory and ethnography. Interpretive approaches are also referred to as occurring within a naturalistic (or constructivist) paradigm (Creswell, 2014; Brink et al., 2011). In effect, 'reality' is not fixed and is constructed according to naturally occurring events and situations. For the interpretive researcher then, reality is a flexible position whereby the phenomenon being investigated exists within contexts that have many different possibilities and meanings. Meanings are therefore located in a particular context or situation and time and, generally, meanings emerge from the study process. Interpretive methods ensure dialogue between the researcher and those with whom they interact in order to collaboratively construct a meaningful reality.

However, in this study setting action research is more suitable for its naturalness. It is a normal and natural research paradigm with adequate rigour and a long tradition, and suitable for some research projects that are not as amenable to being researched using other methods. In particular, it allows practitioners to achieve better research outcomes from their practice, without undermining the changes their practice is intended to achieve. Replicability and responsiveness are hard to achieve at the same time - one is traded off for the other. Conventional research sacrifices responsiveness in the interest of achieving replicability, which often makes it unsuitable as a change technique. Action research values responsiveness over replicability, as this makes it easier to achieve action as part of the research. Responsiveness and rigour are two virtues present in a change programme that differs between local relevance and global relevance. A researcher can be responsive to the local situation, and sacrifice global relevance, if necessary. Alternatively, global relevance can be pursued at all expenses, even at the cost of denying opportunities for local change. The

researcher's approach for this study is Participatory Action Research, which can be used as a paradigm or used synonymously with the paradigm of praxis, as discussed in the literature below.

3.2 Action Research

Action research is either research initiated to solve an immediate problem, or a reflective process of progressive problem solving led by individuals working with others in teams, or as part of a 'community of practice', to improve the manner in which they address issues and solve problems. Denscombe (2010) writes that an action research strategy's purpose is to solve a particular problem and to produce guidelines for best practice.

Action research involves actively participating in a change situation, often via an existing organisation, whilst simultaneously conducting research. Action research can also be undertaken by larger organizations or institutions, assisted or guided by professional researchers, with the aim of improving their strategies, practices and knowledge of the environments within which they practise. As designers and stakeholders, researchers work with others to propose a new course of action to assist their community in improving its work practices.

The nature and characteristics of action research are discussed to establish how it enhances this research study.

3.2.1 Nature and Characteristics of Action Research

According to Brydon-Miller, Greenwood and Maguire (2003), action research is "a work in progress" research. It goes deeper into an interesting era of discovering each other's traditions and experiences, and defining the cultural nature of action research (Wadsworth, 2006). What gives action research its unique flavour, is the set of principles that guide the research. Adler,

Shani and Styhre (2004) and Atkins and Wallace (2012) provide a comprehensive overview of six key principles of action research: reflective critique; dialectical critique; collaborative resource; risk; plural structure; and theory, practice and transformation. Greenwood and Levin (1998) saw this type of research as social research carried out by a team encompassing a professional action researcher and members of an organisation or community seeking to improve their situation.

Brydon-Miller, Greenwood and Maguire (2003) stress that “action research has a complex history because it is not a single academic discipline but an approach to research that has emerged over time from a broad range of fields”. One main characteristic and strength of action research becomes clear: it suggests intervention carried out in a way that may be beneficial to the organisation, individuals or groups participating in the research study. Heikkinen, Huttunen, and Syrjälä (2007) emphasise the importance of arriving at some measure of “goodness” of action research. Although they take a pragmatist perspective on the quality of action research, focusing on the notion of “workability” of the results of action research, the importance of ensuring quality is central.

Across the different types of action research, Rolfsen and Knutstad (2007) found five key characteristics of this type of research – the research is participatory, defined by a need action, useful and meaningful, reflexive about creating meaning and, lastly, includes flexible and iterative dialogue between insiders and outsiders.

Participatory: This characteristic is owned and measured by the community. The community may choose to invite outsiders to assist with their assessment efforts, but the community upholds control over the process. Researchers offer one or many views that the community ponder on in its efforts to document and deduce the trend.

Defined by a need for action: The community starts the project to address an issue or act on an option, and the action is guided by that aim. The research is assessed based on the

extent to which it assists the community in achieving its aim or, in some cases, to redefine its goal. The investigation is, in the best cases, resourceful and transformative.

Useful and meaningful: Participatory Action Research produces knowledge that is useful and significant. It endorses local information. It ensures that participants are adept at analysing a situation and developing solutions to the challenges that face them. It also explores common norms about what counts as knowledge.

Reflexive: The investigator questions his own activities regularly to determine why research is being done. Who will benefit from it? Who is going to use it, and for what purposes? Who will or will not form part of the investigations?

Flexible and iterative: The method and focus of the research may be modified as participants' attention is focused on their understanding of what is really happening and its importance to them. During the process new questions, understandings and guidelines may arise and change the course of action. The research proceeds through Participatory Action Research cycles of planning, acting, observing and reflecting.

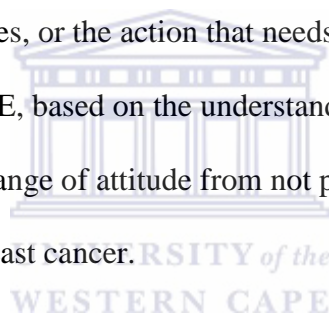
Participatory Action Research is an approach to research and learning that uses different methods as discourse on issues or possibilities identified and well defined by action. It is essentially about the improvement of practice and the creation of knowledge in social groups. It creates new ways of working, interacting and knowing.

3.2.2 Action Research Paradigm

O'Brien (1998) claims that action research is a method, while praxis is a research paradigm. He also claims that action research belongs, epistemologically, in a praxis research paradigm rather than in positivist or interpretive paradigms. While the positivist paradigm is mainly concerned with objective fact-finding, and the interpretive paradigm concerns the discovery of subjective meanings, praxis is about vision and action. Dick (2006) also describes action

research as “action to bring about change in some community or organisation or program” and “research to increase understanding on the part of the researcher or the client, or both (and often some wider community)”. He notes that action research sometimes focuses more on action, while in other forms research is the primary focus.

The critical-emancipatory form appears most related to the praxis paradigm, as does the concept of ‘participatory’ action research. PAR, according to Hall (2005), “is a way for researchers and oppressed people to join in solidarity to take collective action for radical social change”. Action research as a method, involves a cycle of various stages or steps, beginning with identification of the problem, and moving on to reflection, planning and action, which is the basis of the praxis paradigm. The praxis paradigm discusses the art of acting upon the condition one faces, or the action that needs to be done to effect change. In this study the art of practising BSE, based on the understanding of the procedure and its importance, will bring about a change of attitude from not practising BSE to doing so monthly for early detection of breast cancer.



3.3 The Paradigm of Praxis

Although sharing a number of perspectives with the interpretive paradigm, and making considerable use of its related qualitative methodologies, there are some researchers who feel that neither the interpretive nor the positivist paradigm is a sufficient epistemological structure under which to place action research (Lather, 1986; Morley, 1991). Rather, a paradigm of praxis is where the main affinities lie. ‘Praxis’, a term as cited by Aristotle (384 BC-322 BC), is the art of acting upon the conditions one faces in order to change them. It deals with the disciplines and activities predominant in the ethical and political lives of people. Aristotle contrasted this with theories - those sciences and activities that are concerned with knowing for its own sake. He believed that both are equally necessary. That

knowledge is derived from practice, and practice informed by knowledge, in an on-going process, is a cornerstone of action research. Action researchers also reject the notion of researcher neutrality, understanding that the most active researcher is often the one who has the most at stake in resolving a problematic situation.

Grant (2007, p. 272) states that the “process is interactive across multiple levels: between researcher and participants; emerging (students) and established (supervisors) researchers; and also as we, the researchers, reflect and ‘interact’ with the process and our developing selves”. It also has a social dimension - the research takes place in real-world situations, and aims to solve real problems. Finally, the initiating researcher, unlike in other disciplines, makes no attempt to remain objective, but openly acknowledges their bias to the other participants. An action researcher should note that ensuring the relationship with the participants is of importance in participatory research. The researcher in action research gathers information in person by having face-to-face interaction with participants, and is able to observe participants’ reactions in their natural settings (Creswell, 2014). The purpose of the study was to develop an empowerment programme by following Wadsworth’s (1998) Participatory Action Research process, with full participation of the women, the health workers and the experts in maternal health issues.

3.4 Choice of the Research Approach

All researchers have different beliefs and ways of viewing and interacting with their surroundings. As a result, the ways in which research studies are conducted vary. However, there are certain standards and rules that guide a researcher’s actions and beliefs. Such standards or principles can be referred to as a paradigm, which can be used to gain a better understanding of why and how the researcher chose a specific methodological approach.

Although each paradigm has corresponding approaches and research methods, a researcher

may adopt research methods that cut across research paradigms as per the research questions she proposes to answer.

Denscombe (2010) states that there are two types of action research: Participatory Action Research and practical action research. In practical action research, an action research strategy's purpose is to solve a particular problem and to produce guidelines for the best practice, while Participatory Action Research involves the process of actively participating in an organisation's change situation whilst conducting research. Action research can be undertaken by larger organisations or institutions, assisted or guided by professional researchers, with the aim of improving their strategies, practices and knowledge of their health within the environments within which they live or practise.

Adler, Shani and Styhre's (2004) principles of collaborative resource, presuppose that each person's ideas are equally significant as potential resources for creating interpretive categories of analysis, negotiated among the participants. It avoids the prior status of the researcher's idea and allows the use of many viewpoints, rather than a single viewpoint, as seen in the focus group discussions used in this study. Two of the characteristics that are related to the study are the full participation of the women and the dialogue that existed between the researcher, as an outsider, and the women, as insiders, working together to achieve the purpose of the study - the development of the empowerment programme on BSE practice. The characteristics of action research further give credence to the use of action research in a participatory manner to achieve maximum involvement of the people involved in any study, such as this study, to achieve the objectives. The nature of the study in exploring the understanding and practice of and barriers to BSE, using the survey approach in the first phase, and reflection of the findings of the first phase by the participants in the FGD in phase two, enables participation in drawing conclusions and making suggestions and recommendations towards development of the empowerment programme.

This motivated the researcher's choice of an action research approach to explore the understanding and practice of and barriers to BSE, and guide development of an empowerment programme package that will encompass the different aspects of nursing's holistic approach to health education, promotion and change in behaviour, with the full participation of the participants. The purpose of the study is to develop an empowerment programme after exploring the understanding and practice of and barriers to the practice of BSE in women in the Iddo Local Government community of Oyo State, Nigeria.

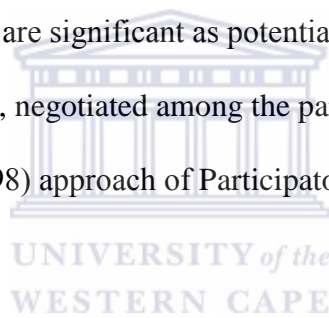
3.4.1 Research Design: Participatory Action Research

Utilising Participatory Action Research design for development of an empowerment programme for women on BSE aimed at prevention of breast cancer in the Iddo Local Government community follows the tradition of action research, an approach developed by Kurt Lewin in 1946 (Kindon, Pain & Kesby, 2007). It focuses on group dynamics and the belief that, as people examine their realities, they will organise themselves to improve their conditions. In particular, Participatory Action Research describes a research approach by which participants are organised to engage in a collaborative action-based project that reflects their knowledge and mobilises their desires (McIntyre, 2008).

Participatory Action Research is an approach characterised by the active participation of researchers and participants in the co-construction of knowledge. It also involves the promotion of self- and critical awareness that leads to individual, collective and/or social change, and an emphasis on a co-learning process where researchers and participants plan, implement and establish a process for disseminating the information gathered in the research project (Kindon et al., 2007). Participatory Action Research is adopted because it is concerned with encouraging the respondents (women) in the study area to participate in a

decision-making process with regard to their health and well-being. In other words, the study is aimed at giving power to the study population.

It is noteworthy that, since Participatory Action Research aims to achieve empowerment of people, power is its underpinning concept. Labonte and Laverack (2001) and Braun and Clarke (2006) argue that empowerment is a shifting or the dynamic quality of power relations between two or more people, in that the relationship tends towards equity by reducing inequalities and power differences in access to resources. When Participatory Action Research is used as a design, rather than the researcher being solely involved in the knowledge construction, contributions are encouraged and received from all participants. Participation in action research is based on the principle of collaborative resources, which proposes that each person's ideas are significant as potential resources for creating interpretive categories of analysis, negotiated among the participants (McIntyre, 2008). The study followed Wadsworth's (1998) approach of Participatory Action Research (Figure 3.1).



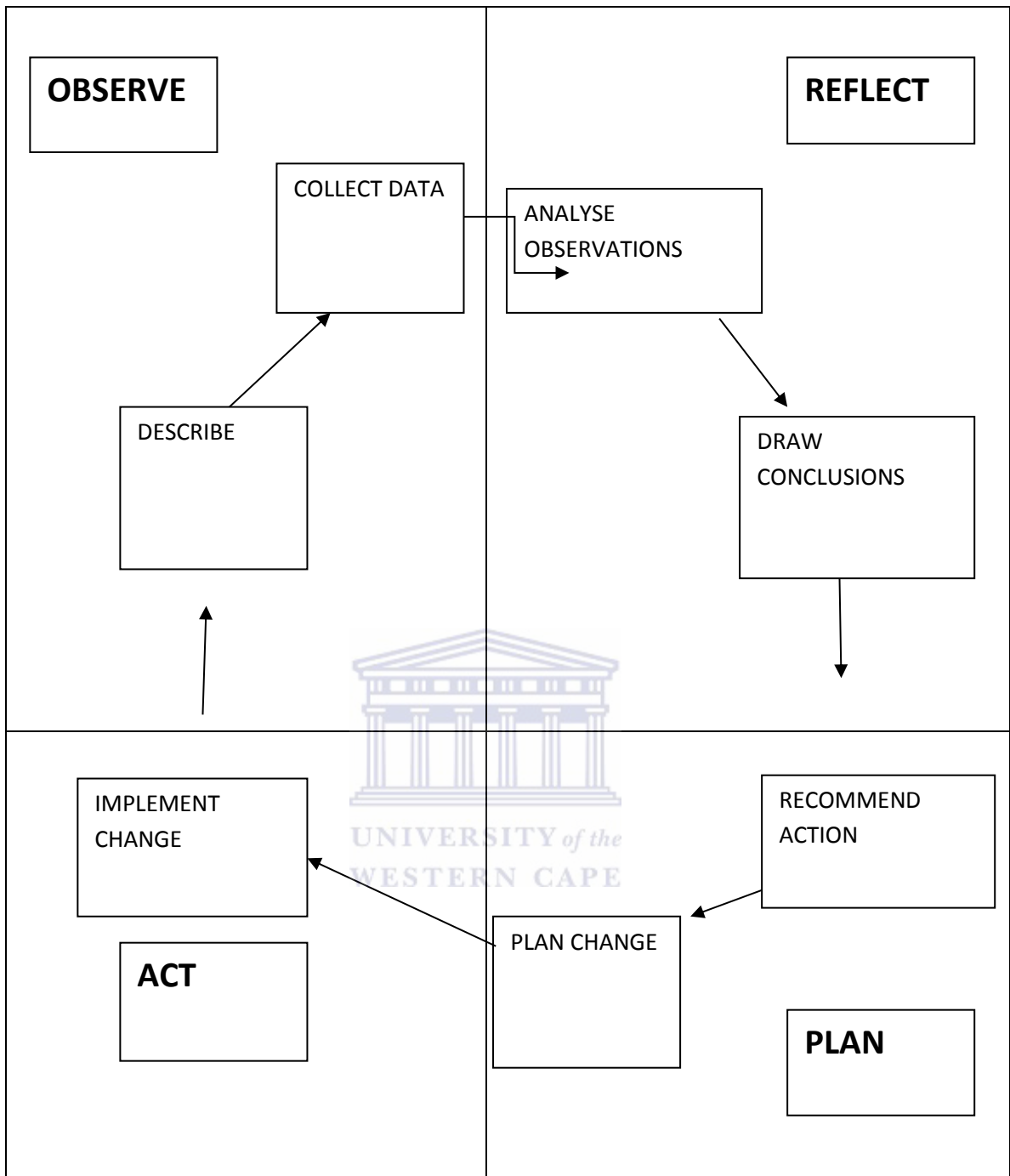


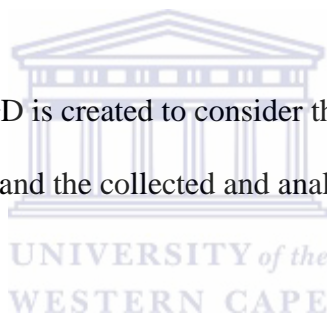
Figure 3.1 Participatory Action Research Diagram (Wadsworth, 1998)

The Participatory Action Research framework adopted for this study has four phases. The first phase, ‘observe’, describes the knowledge, practice and barriers of BSE, as identified using a survey. The second phase, ‘reflect’, is a reflection on the results of the data

gathered in observation and the conclusions reached. The third phase, 'plan', deals with the recommendations from phase two and development of the empowerment programme. The fourth phase, 'act', involves the implementation of the empowerment programme, developed by and with the women.

The Participatory Action Research diagram (Figure 3.1), as postulated by Wadsworth (1998), is thus divided into four quadrants titled 'observe', 'reflect', 'plan' and 'act'. The process is dynamic and constantly evolving - an on-going cycle of actions and learning which overlap one another. Here is a working simplification of the Participatory Action Research process proponents:

- Phase one - Observe: The problem is described and data are collected using a survey method.
- Phase two - Reflect: A FGD is created to consider the results of the survey, observations are analysed and the collected and analysed data are used to draw conclusions.
- Phase three - Plan: Working group members (the women, health workers and expert reviewers) examine and discuss recommendations for change and develop the empowerment programme package for BSE.
- Phase four - Act: This is the implementation phase, where the developed programme is executed and evaluated with practical demonstration of BSE being done by the women and observed using the checklist for the step- by-step procedure prepared by the researcher (Annexure J).



3.5 Research Phases

This section describes the setting of the study, the population, participants, sampling methods, sampling frame, instruments for data collection, ethical considerations, rigour of the study, data collection process and data analysis methods of each of the four phases of the Participatory Action Research process (as reflected in Fig 3.1). Each of the four phases are discussed below, stating the design, setting, population, participants, instrument for data collection, data collection method and data analysis.

3.5.1 Gaining Entry and Access to the Setting

Approval was granted by the State Ministry of Health (MOH) to conduct the study in their health facility. The local government health centre falls under the MOH. The health facility granted the researcher access to the community through the local government for health and the health workers. The first step of any research project involves identifying and involving the participants, gaining entry and cooperation by identifying the types of participants to be recruited, approaching the doorkeepers for support and approval, and recruiting the participants.

Gaining entry into the research setting is very important to ensure cooperation and support from the participants through the health workers in the primary health care centre who are familiar with the women and the other stakeholders in the community. Gaining entry involves explaining the purpose of the study and data gathering methods to the health workers and the women. The researcher collected data to estimate the needs of the group of women in this community for BSE practice. Through the survey the researcher was able to obtain direct information on the needs of the women regarding BSE understanding, practice and barriers in the community. This approach is also referred to as a 'needs assessment'. The advantage of conducting a needs assessment is that it is a useful planning tool and the

information obtained helps to establish priorities (Brink et al., 2011). The central focus of the observation phase is gathering information on the knowledge and practice of and barriers to BSE practice.

3.5.2 Study Setting

The study was conducted in Nigeria, which had an estimated population of 140 million in 2006, of which 35 million were women of reproductive age (Federal Office of Statistics, 2006). In 2011 the population of rural dwellers in Nigeria was put at about 82 million by the National Population Commission (2011). Certain health issues, such as early childbearing, have been found to be rural phenomena, with 30% of rural women aged 15–19 years, having begun childbearing - compared to 17% of urban women in the same age group. Whereas the median age at first birth is less than 19 years among women aged 35 years and above, it is 20.3 years among those aged 25–29 years (Nigeria National Demographic Health Survey, 2003).

The peculiarity of such health issues to rural settings influenced the researcher's choice of the Iddo community in the Iddo LGA of Oyo State as the study area. In 2006 the community had a population of 103 261 and an area of 986 km². The community has only one primary health care centre, where the entire community gets treatment for minor as well as major ailments, and also maternal and child health care services. The nearest secondary health care facility is about 16 km away from the community, and this was the nearest centre where information on BSE was available and accessible to the community at the time of the study. This study was conducted in five villages of the Iddo Local Government, in Oyo State, in the south-western part of Nigeria, based on the sampling. The study focused on women living in this rural population of Nigeria and the health workers in the health centre.

3.5.3 Population

A study population is the entire group of elements, subjects, objects or events being studied (Burns & Grove, 2009). The population selected for this study comprised the rural women in the Iddo Local community of the Iddo LGA, with a population of 103 261. The target population for the first phase of the study comprised women between the ages of 20 and 60 years, living in the Iddo LGA, with a women population of 19 694 (by 2006 Census). Women between the ages of 20 and 60 years were chosen as they belong to the childbearing and menopausal age bracket, and are thus prone to breast cancer. They were also the direct beneficiaries of the study. Five wards/villages in Iddo LGA were selected and used for the study - Ilaju, Ogundele/Shiba, Gbekuba, Iddo and Apete, and five health workers from the health centre. Of the health workers at the health centre, nine are nurses, while two are medical doctors.



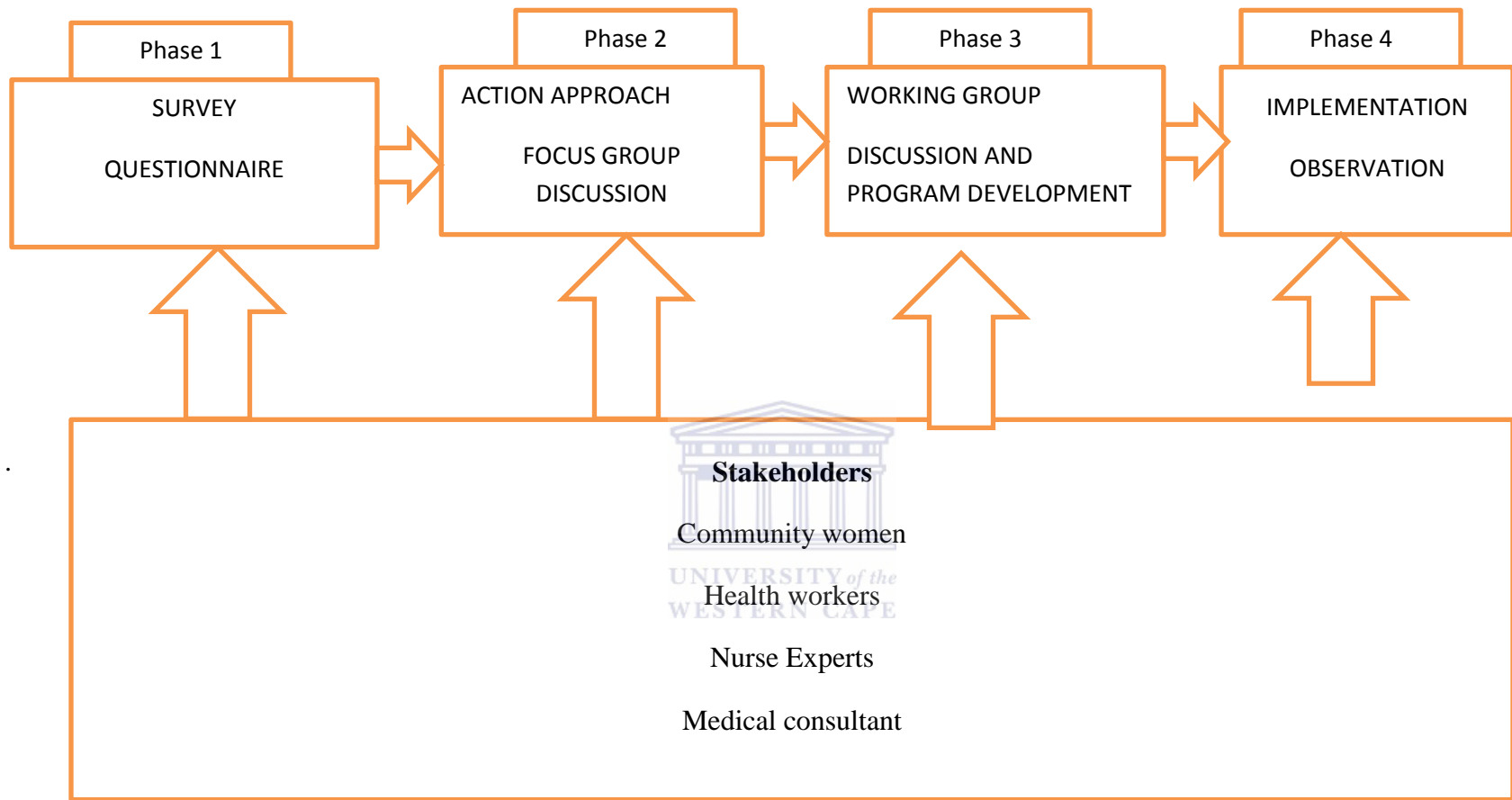


Figure 3.2 Research Process of the Study

3.5.4 Phase one: Observe Problem Identification and Data Collection

Three objectives were addressed in phase one of this study:

- Determining the understanding of women in the Iddo Local Government community of breast cancer prevention through the use of BSE;
- Determining whether BSE practices exist among women of the Iddo Local Government community; and
- Determining what the barriers to the practice of BSE are among women of the Iddo Local Government community.

Phase one is divided into description and data collection stages. The aim of the study was explained to the women before commencement of the study. Taylor, Braverman and Hammel (2004) suggest that careful documentation of people's views on life is important. They argue that there are always two perspectives in any study: the insider's view and the outsider's view - the insiders, in this case, being the participants, while the researcher is the outsider.

In the data collection stage, questions regarding the subject matter were answered by the respondents (women aged 20 years and over).

Research Design

A descriptive survey design was employed, in line with the research questions of phase one. Descriptive design is a quantitative research approach used in studies where more information is required in a particular field, through the picture of the phenomenon as it occurs naturally. This design describes the variables in order to answer research questions, such as the first three questions of this study. It has no intention of using a cause-effect relationship. Descriptive designs are concerned with gathering information from a representative sample of

the population, in this study, the women. The emphasis on the collection of data in quantitative studies like this is on observations, questionnaires or surveys (Brink et al., 2011).

Sampling Procedure, Sample Frame and Sample Size Distribution

The purpose of this phase is to generate a description of the problem that the study will be addressing, often in the form of a survey using a stratified sampling method. Five out of the 10 Iddo LGA villages were selected by balloting, as the researcher could not cover all of the villages. Each village is represented as a stratum. The stratified sampling method involves putting the population into strata according to the variables of importance to the study (Burns & Grove, 2009). Within each stratum, the age and gender of the participants were the characteristics used for selection. Participants were recruited at the market place, the antenatal clinic, the infant welfare clinic, churches, the mosque, and at their houses. Also, five health workers who work in the health centre were selected as research assistants, based on a simple random technique.

The 2006 population of 19 694 was projected to 23 312 for the year 2012, using a 2.85% National Population Commission growth rate (see Table 3.1 for details). The following formula was used:

$$P_n = P_1 (1+r)^n$$

Where

$$n = 6 \text{ years}/100$$

$$r = 2.85 \text{ (rate of population growth)}$$

P_n = forecast population

P_1 = present population.

The sample percentage that was chosen was 1.4% of the total population from the estimated population figure of 23,312 projected for 2012.

Table 3.1: Sample Frame and Sample Size Distribution

Source: NPC (2011) (Section on population distribution and projection of the Iddo LGA)

Ward No.	Sample frame as at year 2006, NPC figure	Projected sample frame for 2012 using 2.85% NPC sub-urban population growth rate	Sample percentage	Actual sample size	Sample size + growth rate
2	1 207	1 429	1.4	20	21
4	8 125	9 617	1.4	135	143
5	1 451	1 718	1.4	24	25
8	5 745	6 800	1.4	95	101
10	3 166	3 748	1.4	52	56
	19 694	23 312	1.4	326	346

Participants

The sample in this study were rural women in the Iddo LGA of Oyo State; 346 women aged 20–60 years and residing in the community were selected to participate in the study. The participants were identified in five villages. The number of selected participants from each stratum was based on the 1.4% sample percentage as indicated in Table 3.1 above. The participants were selected using the purposive sampling method of age and gender until the required number for each stratum was achieved. Also, five health workers who work in the health centre served as research assistants in this phase.

Inclusion criteria for this study included married and single women of child-bearing age, in the age bracket of 20 to 60 years - therefore, women of active child-bearing age in the menstrual and/or menopausal age bracket. Thus, those above 60 years of age were excluded, as they do not fall within child-bearing age and will have come to the end of menopause, which puts them outside of the active period of cancer growth development. The inclusion criteria for health workers included those who have worked in the study area for longer than one year and were still working there at the time of data collection.

Data Collection Instrument

A questionnaire was developed using the Health Belief Model concepts, and used in obtaining relevant data from the respondents, who were unable to read and write in English but understand the local language. The questionnaire was divided into four distinct sections: A, B, C and D. Section A examined the socio-demographic information of participants, such as age, marital status, education, occupation, religion, level of income and source of information on health issues. Section B sought information on the knowledge of BSE, while Section C recorded the practice of early detection measures of breast cancer. Section D measured items on the HBM scale, such as susceptibility and seriousness of breast cancer, barriers, benefits, confidence in practising and health motivation for BSE practice. Construction of the questionnaire was based on the literature review on the Health Belief Model, which has been used by many researchers for obtaining information on knowledge and practice of and barriers of BSE. Consequently, the questionnaire elicited information on the knowledge and practice of and barriers to the use of BSE among respondents. It enabled the participants to describe their situations.

Those who don't understand English were supplied with the Yoruba translation of the content of the questionnaire, as translated by linguistic experts (two lecturers at the Yoruba department, Department of Linguistics and African Languages, University of Ibadan). After translation the two versions were found to be congruent by another expert from the same department. A structured questionnaire (with translation for those who cannot read or write) was used as an instrument to collect information.

Validity and Reliability of the Quantitative Instrument

The research questions were used to generate the items of the questionnaire. The overall sample of the content being measured was represented, so that the items of the questionnaire could be checked for accuracy. Consequently the researcher also identified a broad spectrum of content, the validity of which was tested through a pilot study using 50 participants. Content validity was used to assess how well the instrument represents the components of the variable to be measured (Brink et al., 2011). The final copy of the questionnaire was the outcome of the pilot test and input from the experts.

The common method employed to estimate reliability is the internal consistency of the questionnaire, and the split-half method was used to test the instrument. The items of the questionnaire were split into two halves, and correlations between the two scores were computed. The scores of the odd-numbered items were compared to the even-numbered items have positive correlation. The reliability correlation coefficient was 0.7 on Cronbach's Alpha.

Pilot Testing

A pilot study refers to a small-scale preliminary study conducted before the main research, in order to check the feasibility or to improve the design of the research (Haralambos & Holborn, 2000). The pilot study was carried out on members of a similar population. The purpose of the pilot study was to detect possible flaws in the measurement procedure, refining of the questions, such as ambiguous instructions, and inadequate time limits (Welman, Kruger & Mitchell et al., 2005). Fifty women in village 10 were used to validate the questionnaire and to ensure face and content validity. Thirty five participants completed the questionnaire, while 15 answered by interview, using the questionnaire as a guide. All comments of the participants were incorporated in the final draft of the questionnaire.



Data Collection Method

Quantitative research is essentially about collecting numerical data to explain a particular phenomenon. The research questions in this study seem immediately suited to being answered using quantitative methods, as seen in this phase, which seeks to explore the understanding and practice of and barriers to BSE. Qualitative data collection in health-related studies is, however, defined as the on-going systematic collection, analysis, and interpretation of health data, necessary for designing, implementing, and evaluating public health programmes (Polit & Beck, 2008).

In the data collection sub-stage, information regarding BSE understanding, practice and barriers to practice were answered by the respondents, with 346 questionnaires were administered to respondents in the age bracket 20–60 years within the study area, adding 20 questionnaires for the growth rate. The questionnaire was administered to the women in each of

the five villages by the researcher and assistants who are qualified nurse/ midwives. It was self-completed by those who could read and write, while an interview format was used for those who cannot read and write. The venue for collections varied; in villages two, four and eight the market meeting hall was used, while in village five, participants assembled in the local government secretariat hall, and participants from village 10 assembled in the health centre, because of their proximity to the health centre. The data collected were used in phase one to provide answers to the following objectives:

1. Explore the understanding of breast cancer prevention through BSE among the respondents;
2. Investigate the practice of BSE among the respondents; and
3. Identify barriers or challenges to BSE among the respondents.

The health workers who served as research assistants in this phase were trained in the data collection method. The survey data collection lasted for three weeks and collection of data was done moving from one village to another.

Data Analysis

Quantitative data analysis is helpful in evaluation as it provides quantifiable and easily understandable results. Quantitative data can be analysed in a variety of different ways. The researcher checked that the questionnaires were completed correctly and completely. Only one questionnaire was missing or unreturned (one participant relocated from her village and could not be traced). Coding of the questions on the questionnaire was done using the coded sheet, and all data were entered into the Microsoft Excel spread sheet program. Thereafter, they

were handed over to the statistician for analysis. The data that were collected were imported into SPSS software (version 21) for analysis. Variables included in the questionnaire were social demographic characteristics, BSE understanding, practice and barriers to practice, which have different values. The values of variables were expressed as numbers for age in years, educational level and other demographic data. These numbers, called numerical variables, were presented using simple tables completed with frequency counts for all variables. Other variables are expressed in categories such as the knowledge, practice and barriers to practice. Results were analysed as frequencies and percentages, presented in tables and charts.

3.5.5 Phase 2: Reflect

This is the reflection phase. It comprises reflection on the findings (analysis of the observations) of phase one and the drawing of conclusions. In this phase the researcher selected participants based on purposive sampling for the FGD. Participants were selected from among the women and the health workers who participated in the 'observe' phase (phase one). The purpose of the FGD was to reflect on the results of data collected in phase one and discuss the way forward. The results of the data collected with questionnaire administration showed a general lack of knowledge and practice of BSE. It also identified some barriers to the practice of BSE.

Research Design: Qualitative Design

The design for this phase is qualitative, using the FGD method to enable the women to reflect on the findings of phase one. The FGD enabled the researcher to obtain information from participants in real-life issues, and with their full involvement. The choice of using FGD in this second phase was to ensure richness of the data - the use of a qualitative method that focuses on

the understanding of human experience from the viewpoint of the participant, which can be captured during FGD sessions.

Sampling

The sampling procedure for FGD was purposive, a process often referred to as judgemental sampling (Burns & Grove, 2009). Speziale and Carpenter (2007) state that, in purposive sampling, the participants should be selected on the basis of the knowledge they have about the subject of the study, or based on the decision of the researcher regarding the characteristics of the study population. This can increase the range and depth of specific information that can be obtained (Patton, 2002). The researcher selects the most valuable sample to reflect on the findings of phase one; hence the selection of participants was made using purposive sampling techniques.

Participants

Ninety women were included in this phase, based on their knowledge of the topic under study. It was determined that their information and contributions would be useful during the reflection on the findings of phase one, which identified a gap in knowledge, lack of practice and the presence of barriers to practice. The women were selected from among the participants used in the survey, based on their availability for the FGD, having already met the criteria stated in phase one in respect of their socio demographic characteristics such as age, marital status and others. The numbers of participants for the FGD group are from seven to twelve for each of the nine groups. Group sizes are seven, eight, twelve, ten, nine, ten, eleven, twelve and eleven based on their number of women available for each session. The five health workers worked with the

researcher as facilitators of the FGD sessions, based on their availability and experience in maternal and child health care services.

Data Collection Strategy: Discussion Guide

Focus Group Discussions are small gatherings of people called together to deal with certain topics or issues. FGD size usually ranges between six and twelve people, as recommended by De Vos, Strydom, Fouché, and Delport (2011) and Brink et al. (2011), and should have a moderator who takes notes and observes the group's interaction. An FGD can be used as a means of understanding why people hold the views that they do. It allows them to express their concerns and fears about certain things within the topic, and it can give the researcher ideas on how the study can be improved (Polit & Beck, 2008).

The reason for the suggested number of participants is that fewer than six participants may cause the FGD to be less informative and dull, while more than 12 can be difficult to manage and may not give an adequate opportunity to all to participate fully and provide adequate information. FGD are particularly useful in participatory and action research, where members of the community are equal participants in the planning and implementation of the research with the health workers and researcher, and where the topic is of real-world community concern, such as BSE aimed at the prevention of breast cancer. FGD is a qualitative strategy of data collection from a group of people. Apart from obvious practical advantages, the method is useful in allowing participants to share their thoughts with each other (Speziale & Carpenter, 2007). A total of nine FGD sessions were held in three villages, with three sessions per village comprising of between seven to twelve women per group

Data Collection Process

The purpose of the FGD was explained before each meeting. The researcher clarified the aims of the FGD with participants - that the purpose was for them to reflect on the findings of phase one, which showed low levels of knowledge and practice and a number of barriers to practice. It is noteworthy that research feedback and actual problem-solving among the study population are very important to Participatory Action Research (Taylor et al., 2004). The researcher moderated all of the discussion and the trained health workers took notes and ensured that the participants were comfortable. They also ensured that the tape-recorder was working properly during discussions to capture all of the responses.

The sessions were audio-recorded and field notes were taken to support the audio data. This contributed to the richness of the data (Tobin & Begley, 2002). FGD sessions were arranged to be held at a time that was convenient for all of the participants. Adequate time was allowed for each session, and this was well managed to ensure completion of work within the time frame set by the researcher and to discourage information lapses (Creswell, 2014). The findings of phase one of this studies were used as guide for the reflection session.

Participants were to give their opinions on the three problem areas as revealed by the findings of phase one:

1. Low level of knowledge of BSE: Participants were to discuss their opinions on the findings, whether they agreed or disagreed with the results, and new ideas in this regard.
2. Low levels of BSE practice: Participants were to discuss their opinions and whether they supported the findings.

3. Identified barriers to BSE practice: Participants were asked what they think about the results, whether they agreed with the findings, and whether there were other barriers that had not been captured in the findings.
4. Lastly, participants were asked to give their opinions on the way forward, to ensure practise of BSE.

Refreshments were given at each session, to encourage the participants to be committed to coming to the sessions, and to be early. Each discussion session lasted between 50 and 90 minutes, so as not to become boring or prevent the women from attending to their daily chores. The personal reflections of the women and their discussions are presented in Chapter four of this report.

Advantages of using FGD are the following:

- Interaction between participants is easier in small groups.
- FGD can be used to identify potential problem areas, allowing for more in-depth analysis to be planned.
- Recruitment for the FGD can be done based on certain discriminating criteria, e.g. gender, race and age.
- The facilitator has no control over the content, and determines only the general topic.
- The facilitator can clarify certain points with the participants.
- FGD can include people who are unable to read or write, especially in a rural setting.

Disadvantages of using FGD include:

- Some people have more confidence than others, and may try to dominate the group.

- FGD are not useful for gathering statistics, as they allow the researcher to analyse people's views, but do not provide information on the number of people that hold a specific view.
- The wrong mix of personalities within a group can cause problems and may not work effectively to reach the goals of the FGD.
- It is difficult to improve or establish confidence within a group setting, as opposed to during an individual interview.
- Special additional requirements may have to be met in order to support the FGD.

Trustworthiness/Rigour of the Study

The rigour with which the research process is handled determines its quality and evaluation of its trustworthiness (Creswell, 2014; Polit & Beck, 2008). The quality of the research process and result is usually measured by the accuracy of the data. Trustworthiness of qualitative research is ensured by applying the key principles of rigour/ trustworthiness of scientific findings (Brink et al., 2011). Qualitative research uses rigour or trustworthiness, compared to the use of validity and reliability in quantitative studies, to motivate why the findings of a particular study should be believed. In this study trustworthiness was ensured by applying the principles of credibility: transferability (comparing results to similar contexts), dependability (repeatable results or obtaining similar results), and confirmability (results confirmed or corroborated by others) (Klopper & Knobloch, 2010).

Credibility

Credibility refers to confidence in the truthfulness and interpretation of data. It involves two aspects, one of which is to execute the study in such a manner as to create believability of the result findings ((Brink et al., 2011). In this study credibility was achieved by the researcher's persistent observation and prolonged engagement with the participants during the study period. The strength of a qualitative study that aims to explore a problem, a process or a social group, increases its validity. Literature states that different strategies can be used to ensure credibility, such as prolonged engagement, triangulation, debriefing and member checking (Klopper & Knobloch, 2010). In this study this was done by ensuring prolonged engagement, as the data were collected over a period of one year and the participants took part in more than one phase of the study. This enabled the participants to correct any misrepresentations and ensure that the analysed data were an accurate representation of their opinions.

Another method used to ensure credibility was the use of mixed methods of data gathering. During the study different categories of participants were included in the study and the different phases thereof, and different data collection methods were used - the survey, the FGDs and the workshop session with expert reviewers.

Confirmability

Confirmability ensures that the general findings, conclusions, recommendations and implications are supported by the data (Brink et al., 2011). This is usually ensured by two independent experts, who judge the accuracy, relevance and meaningfulness of the data. In this study the researcher ensured that bias of the findings was not allowed, either from the researcher's opinion or that of the health workers. The development of a question guide for data

collection and analysis also helped to ensure confirmability. Furthermore, involvement of participants in phases two and three of the study allowed the researcher to show how the data were analysed, the themes that formed the components of the recommendation were arrived at, and the programme was developed.

Dependability

Dependability refers to the stability or reliability of data over a period and in different situations. During this study the researcher developed an 'audit trail' to ensure dependability and verification of data at any stage of the data analysis process (Tappen, 2011). One approach to ensuring dependability of qualitative research is by developing and maintaining such an audit trail. The researcher's audit trail involved a peer checking the process and procedure used by the researcher in the study and approving its acceptability (Brink et al., 2011). An audit trail assists the researcher in being consistent when sharing data. To achieve this, the researcher used colleagues in the specialty of maternal and child health to check the process of data collection, consistencies in the process and data analysis techniques. Their input was very important in ensuring dependability. An independent coder also crosschecked the findings in order to establish consensus in the thematic analyses of the findings and the conclusion (Polit & Beck, 2008: 584).

Transferability

Transferability is seen as an alternative to external validity or generalisability, and is defined as the extent to which the result of the study can be generalised to other settings, as generalisability to other settings can sometimes be a problem (Brink et al., 2011). It also refers to

the degree to which the findings of a study can be appropriated to another group or setting. In this instance rich descriptions of the participants, the research setting, and the FGD sessions were added to provide information for others to use (Polit & Beck, 2008). The researcher also made available an account of the process followed in this study, and this has the potential to facilitate duplication, and hence transferability.

Klopper and Knobloch (2010) include data saturation as one of the strategies that enhance transferability. This was applied in the study, as data were collected until saturation was reached and no new information was being obtained from the participants. Participants were given the opportunity to review the interpretation of the data collected for the purpose of trustworthiness at the end of each data collection phase. Furthermore, experiences of the participants were captured by categories and themes during the FGD sessions and reflected in the data analysis process.



Member Checking

Member checking is mainly used in qualitative research methodology as a mechanism for quality control, with the aim of improving the accuracy and credibility of the study (Polit & Beck, 2008). In an action study the participants are usually involved in answering questions based on their experiences. Member checking involves participant verification of the data analysis and the report of the findings. The researcher in this study gave detailed oral information to the participants and asked them questions to determine the accuracy of the report, as many of the participants cannot read and write. Member checking was achieved by the participants' ongoing participation in the other phases of the study, which gave them the opportunity to see how the data had been analysed and taken forward into the next phase of the study, and to indicate

any misinterpretation or omission. Detailed information on the recommendations was given as the study moved from phase two to phase three, and the development of the programme was discussed at the end of phase two, as well as during the working session, before the programme was developed.

Data Analysis

Thematic analysis is used in qualitative research. It focuses on the examination of themes within data. (Daly, Kellehear & Gliksman, 1997) This method emphasises organisation and rich description of the data set. Thematic analysis goes beyond simply counting phrases or words in a text and goes on to identify implicit and explicit ideas within the data (Guest, Greg, MacQueen & Namey, 2012). Coding is the primary process for the development of themes within raw data, by recognising important moments in the data and encoding it prior to interpretation (Boyatzis, 1998). The interpretation of these codes can include comparing theme frequencies, identifying theme co-occurrence, and graphically displaying relationships between different themes (Guest et al., 2012). In this study the researcher used Tesch's (1990) proposed eight steps in thematic data analysis, as outlined below.

Stage 1: Becoming Familiar with the Data

The descriptive stage is more critical in qualitative studies, divided into familiarising the researcher with the data and transcribing. This is the initial phase of thematic analysis, whereby the researcher becomes familiar with the data (Burns & Grove, 2009). Analysis of data in qualitative studies involves the examination of spoken words rather than numbers, such as in the quantitative data of phase one. A massive amount of data in the form of words is gathered. The

researcher spent hours reflecting on the possible meanings and the relationships of the data. This is referred to as being ‘hands on’ or dwelling with the data. The researcher excludes preconceived ideas about the phenomenon under study by reflection and replaying the recordings after the FGD sessions to listen to voice, tone, pauses and responses, as well as to the entire content of the discussions (Burns & Grove, 2009).

Stage 2: Transcription

The information on the recordings of the FGD sessions was transcribed word for word, including pauses, exclamations, laughter or crying, and condensed to a manageable size (Burns & Grove, 2009). After transcription the researcher replayed the recording to correlate the information for accuracy (Speziale & Carpenter, 2007). To uncover the meaning of the experiences recounted by the participants, the researcher read the interview transcripts several times. The researcher explored personal feelings and experiences that could influence the study and integrated this understanding into the study – this is called reflective thought (Burns & Grove, 2009).

Stage 3: Development of Codes

After going through the transcripts the researcher arranged similar topics in groups by forming columns labelled according to the major topics, unique topics, and others. The topics were abridged as codes and the codes were allocated to the appropriate segments of the text. The FGD data were encoded as numbers and letters, according to the themes from the FGD sessions. The researcher read all of the information to get a sense of the information collected, looking at the words used by the participants during the FGD sessions. The researcher

then observed the manner in which the data were organised, to check whether new categories or codes emerged.

Stage 4: Data Reduction

The process of reducing the data began in this stage. Codes and coding were used to identify categories of data from the massive amount of data collected. The purpose of coding is to facilitate the retrieval of data segments by coding category. A category system was created and applied to the data that had been gathered during the FGD sessions. Even memos that were vague or not well thought out were given titles and dates (Tesch, 1990).

Stage 5: Conversion to Categories

The researcher used the most descriptive wording derived from the discussions, and converted this into categories. The aim was to reduce the total list of categories by grouping the topics together as they relate to each other. Lines were drawn between the categories to indicate interrelationship of categories along the research questions pertaining to the knowledge, practice, barriers and the way forward. A final decision was then made on the abbreviation for each category and the codes were arranged alphabetically in columns.

Categories and codes were identified within the data recorded for all of the participants in each group (Brink et al., 2011). The researcher identified relations between categories that could be used to formulate tentative propositions. These tentative propositions were recorded and sorted into categories. The categories with the greatest priority were identified and later compared with those of other groups to determine the emerging themes.

Stage 6: Defining and naming themes

The data codes that belong in each category were put together in one place and the preliminary analysis was performed, which led to the development of themes. This was done after engaging with the data to understand and seek further explanation and generate themes. Themes capture important aspects about the data in relation to the research question and represent some level of patterned response or meaning within the data set (Braun & Clarke, 2006). Three themes emerged from the thematic analysis - 'knowledge/awareness of BSE', 'practice and appeal for intervention', and 'misconceptions and fear'. The results were interpreted to identify the pattern and consistency of the analysis. The themes that emerged further confirmed the findings of the quantitative data collected in phase one.

Stage 7: Producing a Report

The Three main themes that emerged from the data collected during the FGD sessions were further reviewed. The findings that emerged from the data analysis resulted in recommendations, which were used for development of the programme in the community (De Vos et al., 2011). The researcher started the process of making the final report accessible to the participants and members of the working group. The themes made meaningful contributions to answering research questions. The researcher included the discussions connected with each theme in this report, in order to increase dependability of the findings through thick description of the results (Guest, Greg, MacQueen & Namey, 2012).

The goal of producing a report is to ensure that the thematic analysis conveys the story of the data in a manner that convinces the reader of the validity and merit of the analysis. A clear, concise, and straightforward, logical account of the story, across and with themes by the

researcher, is important for readers to understand the final report. The themes within the data are relevant to the data set, and extracts included in the narrative capture the full meaning of the points in the analysis by the participants on BSE knowledge and practice aimed at early detection and prevention of breast cancer.

The final step was member checking - a means to establishing credibility. The researcher took the final themes and supporting discussion to working group participants and elicited feedback on the themes (Polit & Beck, 2008). (See the list of suggestions agreed upon during the FGD sessions in Chapter four – Table 4.11.)

3.5.6 Phase 3: Plan - Planned Change and Development of the Programme

Workshop Session Process

Phase three of the Participatory Action Research process comprises recommendations of actions and planned change. This is the phase during which the empowerment programme is developed from the themes that emerged from the activities in phase two. This phase answered the fourth objective of the study - to develop a programme that can strengthen/empower women regarding the prevention of breast cancer using BSE.

Setting

The development of the programme was planned and designed in this phase. The health centre hall of the Iddo Local Government, which was also the setting for phase two, was used for a working session. This was a day-long programme that had all stakeholders in attendance.

Sampling

Ten women were selected from the participants in phase two, using purposive sampling based on their availability, having met the criteria of the researcher of being women between the ages of 20 and 60 years with some understanding of the subject under discussion. The five health workers who worked as research assistants were selected, based on availability and understanding of the subject under discussion and their experience working in maternal and child health care. The experts were also invited to participate.

Participants

Ten women were selected from the participants in phase two, based on their availability, having met the criteria of women between the ages of 20 and 60 years and with some understanding of the subject under discussion. The five health workers who acted as research assistants and the two expert reviewers were also invited to bring fresh perspectives with the potential to increase the quality of the work and validate the programme that was developed. The session was moderated by the researcher. The total number of participants was therefore 17. The health workers who worked as research assistants were included to give their comments on the process and development of the programme. Another purpose was to provide them with information on their roles in implementation of the programme. The women selected from among the participants in phase two were included to confirm the recommendations and programme developed as representing their opinions.

Data Collection Process

The workshop was planned for the full day in two sessions. The researcher facilitated the workshop, requesting consent forms and biographical details to be submitted by the two expert reviewers. The researcher introduced the expert reviewers - a nurse with specialisation in maternal and child health care and a medical consultant who specialises in obstetrics and gynaecology - who were invited to assess the study process and to study the recommendations and the developed programme. A presentation on the study and the outcomes of the first two phases was given. The participants were informed about the objectives of the workshop session and the documents to be used, and the recommendations were explained. Based on the Participatory Action Research, the approach used in this study, deliberations and discussions were necessary with the participants to ensure that their opinions were captured accurately (Rolfsen & Knutstad, 2007).

Three documents were provided for discussion, deliberation and review: a list of suggestions from phase two FGD reflections (document 1), a list of recommendations (document 2), and a document describing the programme that had been developed (document 3). The participants were divided into groups according to their literacy level and to facilitate active participation. The objective of the session was explained to the participants. Copies of the three documents were given to those who could read and write, while a presentation on the documents was done in the participants' native language (Yoruba) for those who were unable to read and write. The main objective of the session - to develop an empowerment programme based on the recommendations from phase two of the study - was restated before commencement of the session.

The first session of the workshop involved a review of the list of suggestions for BSE practice, as presented in document 1. The participants were requested to check for accuracy and appropriateness of this as representing their opinions. In addition, the participants looked at the recommendations based on their suggestions. The participants checked each component for completeness and appropriateness with regard to their recommendations. After discussion in the two groups the participants provided their feedback and the entire group gave their comments and came to a consensus agreement.

The second session looked at the recommendations and the components of the programme that had been developed, to ensure that it represented the opinion of the participants. Documents in this regard were also provided in the workshop.



Workshop Evaluation

An evaluation of the workshop was done by the participants, and comments were requested on the feasibility and appropriateness of the programme that had been developed for BSE practice among the women. Refreshments were served for the comfort of the participants. The workshop was conducted in both English and Yoruba as some participants could not read or understand English.

Programme Validation by Expert Reviewers

The programme was validated by the expert in maternal and child health care and the obstetrics and gynaecology medical consultant, who had been invited to give their input in the programme. The entire research process was explained to the experts, including the findings of phases one and two. They were also given documents one, two and three - the suggestions,

recommendations and the programme that had been developed. The experts completed expert review forms (see Annexure K).

Product of Phase 3 of the Study

The outcome of phase three of the study was the development and endorsement of the empowerment programme for BSE practice among rural women in the Iddo Local Government community.

Outcomes on each activity of the programme component were finalised and set for implementation.

These included health visits to monitor the impact of the programme on the women by their attendance at the clinic and correct performance of BSE, observed using a checklist that was developed.



3.5.7 Phase 4: Act

Phase four is the implementation phase, which comprises executing the empowerment programme that was developed for the women and evaluating the impact of the programme. The programme involves providing health information concerning BSE during the study process and in the health centre during weekly visits, demonstrations of BSE on a model and physical demonstrations, and communicating BSE messages via video, production and distribution of pamphlets and composition of a song. The programme that was developed was tested by assessing its impact on BSE knowledge and practice among the participants.

Sampling

Convenience sampling was used for participants in phase four consisting of 65 women who had participated in the study from the commencement of the study. The criteria for selection

were having participated in the study from inception, having an understanding of the study subject and being women within the age group of 20–60 years that met the criteria of the researcher.

Participants

Seventy five women participated in this phase. The inclusion criteria demanded that they have an understanding of the subject matter and that they had been part of the process since the commencement of the study. The researcher and five health workers observed the participants during the practical session.

Data Collection Instrument

A checklist with the step-by-step procedure of BSE was developed by the researcher. A checklist is a technique for collecting descriptive data on behaviour and events (Fain, 2004), and in this case is an instrument used to obtain data on BSE performance by women. It is a very useful tool in research within the health care system, as it allows the researcher to observe behaviour as it occurs. (Annexure J).

Data Collection Method

Data collection in this phase was achieved by observation using a checklist. For such observation to be considered as scientific, however, it had to be done under precisely defined conditions, in a systematic and objective manner, and with careful record-keeping (Brink et al., 2011). All observations were checked. The checklist contained a step-by-step process of the BSE procedure (see Annexure J).

Conducting BSE actually uses less than 10 minutes of one's time (WHO, 2010).

Observations were completed within 5 days, based on the availability of the women. One of the implementations was the practical demonstration by the women, while being observed by the researcher and the health workers and during the weekly health visits and attendance at the clinic.

Health visits were conducted by the researcher as a follow-up to check on the sustenance of the programme as per the outcomes of the research process. Attendance at the newly selected day for women's health was checked in the clinic. The purpose of the visit was to monitor the impact of the programme on women's attendance and their practical demonstration of BSE, as stated as part of the outcomes of the research process.

Data Analysis

The data were collected by a checklist designed by the researcher for evaluation during the implementation phase of the programme to assess the BSE practice of the women. The checklist contained the step-by-step procedure of BSE. The data were analysed using SPSS software (version 21). Descriptive statistics were used to analyse the practice. The checklist was coded by assigning a numerical value to each answer (Yes - 1, No - 0): 'Yes' indicated performance of the procedure, while 'No' indicated that the procedure had not been performed. The findings were presented in frequencies and percentages.

3.6 Ethical Considerations

Brink et al. (2011) states that the researcher has the obligation of conducting research in an ethical manner and to protect the rights of participants. This study maintained the required

ethical standards throughout. The research proposal was approved by the Community and Health Sciences Higher Degrees Committee, and ethical clearance was also granted by the Senate Research Committee of the University of Western Cape (see Annexure G), as well as by the Ethical Review Committee of the MOH, Oyo State (see Annexure I). At the Iddo LGA, the study area, the researcher gained the approval of the Local Government Chairman through the introduction of the health workers. Being action research and carried out in a real-life situation, the study took note of certain ethical considerations, which included participant information sheets, anonymity and confidentiality, beneficence and the right to know the findings, as discussed below.

3.6.1 Participant Information Sheet

The researcher had discussions with doctors and health workers at the local government health centre after the approval by the state MOH (Annexure I). The discussions were concerned on a date and time when the researcher would meet the health workers and women in the five wards that were used for data collection. The purpose of the study was explained to all of the participants for full understanding of the research problem and the benefits of the study. The right to withdraw from the study at any time that they deemed fit was also explained. A Participant Information Sheet was given to them, along with an explanation for it, before they signed the consent form. Those who could not sign made thumbprints (Parker, 2007). This acquisition of informed consent shows that the study was carried out with the full consent and understanding of the participants.

3.6.2 Anonymity and Confidentiality

Pseudonyms were used to protect the participants' identities. Confidentiality was also ensured, with confidentiality binding form (Annexure E) issued to participants at the FGD for signature/thumbprint. The research assistants and expert reviewers who were involved also completed the confidentiality binding form. The FGD participants were informed that the sessions would be audio-recorded and videotaped. Consent was therefore obtained for audio- and video-recording. The audio-recordings and film for the photograph have been stored in a locked safe with a code known only to the researcher, as evidence for interested researchers for the period of five years.

3.6.3 Beneficence

The participants were informed that the study was not harmful, but that they may feel uncomfortable with the breast model and during BSE practice (Hammersley & Atkinson, 2007). The researcher ensured that women found with lumps in the breast during the BSE sessions were referred to the health centre for appropriate medical action; those who needed removal procedures were supported psychologically by the researcher going with them to the hospital where it was removed and are seen by clinical psychologist.

3.6.4 Right to Findings

The participants were informed before and during data collection that the findings would be made available to them after the study, at a meeting to be conducted in the main hall of the Local Government. Hence, the findings were made available and accessible to the Local Government

Chairman, health workers in the LGA and the women of the community, who formed the study population



Table 3.2: Summary of the Study Methodology (shown in 4 phases)

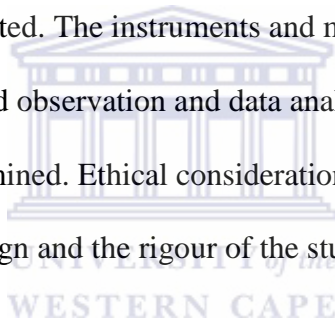
PAR PHASE	METHODS	TOOLS	POPULATION	SAMPLING	PAR PHASE ANALYSIS
1. Observe Description Quantitative data collection	1.1 Survey	1.1 Structured questionnaire using CHBSM items	346 respondents - women between the ages of 20 and 60 years in the community 5 health workers	Stratified and purposive sampling Simple random sampling	Descriptive statistics (SPSS)
2. Reflect Analyse observations and draw conclusions	FGD	Open-ended FGD trigger questions	90 women from phase one, selected from villages 4, 5 and 10	Purposive sampling	Thematic analysis
3. Plan Recommend and plan action	FGD	Open-ended FGD trigger questions	10 women selected from phase two members of FGD sessions, five health workers as facilitators for FGD sessions, and the mother and child health specialist from the teaching hospital, and the obstetrics & gynaecology medical consultant	Purposive sampling	Immediate confirmation as representing opinion

4.Act Implement	Observations	Checklist for performance and for weekly clinic attendance by the women	75 women from the FGD session and 30 women from phase one Five health workers Researcher 105 women	Purposive sampling Convenience sampling	Quantitative Quantitative
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3.7 Chapter Summary

This chapter discussed the research paradigm that guided the choice of research approach, which is the paradigm of praxis that supports action research. The second part described the four phases of the Participatory Action Research process that were used in the study. Table 3.2 above outlines the study process. Phase one comprised the identification of the problem and quantitative data gathering. Phase two reflected on the findings of phase one using the FGD. Phase three comprised the working session and development of the empowerment programme and the expert review, based on the findings of phases one and two. Phase four described the implementation of the programme that was developed. In each phase the setting, population, sampling, and participants were stated. The instruments and methods of data collection, such as the use of a questionnaire, FGD and observation and data analysis for both the quantitative and the qualitative data, were also examined. Ethical considerations, validity and reliability of the instruments of the quantitative design and the rigour of the study were also described.



CHAPTER FOUR

PRESENTATION OF RESEARCH FINDINGS

4.0 Introduction

This chapter presents the findings of the study based on the data generated and analysed from the survey and the FGD. The findings are presented in four major sections using the four phases of Participatory Action Research used in the research study process. The first section presents findings from the quantitative data in phase one - the observation phase of the Participatory Action Research process. The second section presents the findings from phase two - the reflection phase of the Participatory Action Research process - drawn from the qualitative data collected through FGD. The findings of phases one and two led to suggestions and recommendations. The third section presents the recommendations and development of the empowerment programme based on the recommendations in phase two. The last section - the action phase - presents implementation of the empowerment programme and the impact of the programme on the women. The analysis was conducted based on the research questions of the study and the results are presented according to the objectives.

4.1 Phase One: Observe

Phase one involved the description of the problem, which was exploring BSE knowledge, practice and barriers to practice. Objectives one, two and three were answered quantitatively in phase one. The objectives were to: 1. explore the understanding; 2. check the practice of BSE; and 3. identify the barriers to BSE among women aged 20–60 years in the Iddo Local Government community.

For data collection a survey instrument in the form of a questionnaire was administered to 346 respondents - of these, one copy of the questionnaire was unreturned; hence, 345 copies were subjected to analysis. The respondent with the unreturned copy had relocated due to marriage. The questionnaire had four sections: socio-demographic characteristics, knowledge of BSE, practice of BSE, and barriers to BSE practice - using indices of the Health Belief Model. The data were analysed quantitatively to form baseline information for the second phase of the study. The results of the quantitative analysis are presented using frequency and percentages (Tables 4.1–4.10 and Figures 4.1–4.2).

4.1.1 Socio-Demographic Characteristics of the Participants

Social and demographic variables refer to the villages/wards within the local government where the research was conducted, the age range of participants, their marital status, education, occupation, income, religion, and sources of information on breast cancer. Having knowledge of the participants one is studying is an excellent way to start a meaningful interaction with them, and to ensure that they meet the criteria of inclusion for the study. (Tables 4.1–4.7 below refer).

Percentage Distribution of Participants by Villages

The data show the distribution of the participants by the villages selected for the study in the Iddo LGA in Oyo State Nigeria: 26 (7.5%) of them lived in Gbekuba; 56 (16.2%) in Ogunde/Shiba; 21 (6.1%) in Ilaju; 107 (31.0%) in Iddo village; and 135 (39.1%) in Apete (Table 4.1).

Table 4.1 Percentage Distribution of participants by villages (N=345)

Villages	Frequency	Percentage
Gbekuba	26	7.5
Ogunde/le/Shiba	56	16.2
Ilaju	21	6.1
Iddo	107	31.0
Apete	135	39.1
Total	345	100.0

Percentage Distribution of Participants by Age

The data analysis revealed that the ages of participants varied: 126 (36.5%) of the respondents were within the age category 20–30 years; 115 (33.3%) were 31 to 40 years old; 70 (20.3%) fell within the age bracket of 41–50 years; while 34 (9.9%) were aged 51–60 years (Table 4.2).

Table 4.2: Percentage Distribution of Participants by Age in Years (N=345)

Age in years	Frequency	Percentage
20–30	128	37.1
31–40	114	33.0
41–50	64	18.6
51–60	39	11.3
Total	345	100.0

Percentage Distribution of Participants by Marital Status

Data on the marital status of the participants showed that 43 (12.5%) of them were single; 278 (80.6%) were married; 17 (4.9%) were widowed; while 7 (2.0%) of them were divorced (Table 4.3). The fact that over 12% of them were unmarried demonstrates the need to extend cancer prevention education to young women.

Table 4.3 Percentage Distribution of Participants by Marital Status (N=345)

Marital status	Frequency	Percentage
Single	43	12.5
Married	278	80.6
Widowed	17	4.9
Divorced	7	2.0
Total	345	100.0

Percentage Distribution of Participants by Educational Status

The data analysis also showed that 190 (51.1%) of the participants were not educated (could not read or write); 115 (33.3%) of them had primary education; while only 40 (11.6%) had secondary education and above (Table 4.4). Women without formal education were in the majority, followed by those with primary education. Education or lack thereof, especially among women, is often an issue of concern for development experts, an indication for advocacy on the importance of girl-child education. It is widely believed that support for girl-child education improves health care behaviour of women, as a girl of today is a woman of tomorrow.

Table 4.4 Percentage Distribution of Participants by Education (N-345)

Education	Frequency	Percentage
No education	190	51.1
Primary	115	33.3
Secondary and above	40	11.6
Total	345	100.0

Percentage Distribution of Participants by Occupation

The data analysis revealed that more than 94% of the participants engaged in trading, farming or full-time housewife activities, while the rest worked as civil servants in the local government secretariat, or worked outside the villages, but chose to reside in the villages due to the low cost of living. Their work cadres were at the lower levels, such as casual labour and domestic work (Table 4.5).

Table 4.5 Percentage Distribution of Participants by Occupation (N=345)

Occupation	Frequency	Percentage
Housewife	46	13.3
Farming	65	18.8
Trading	213	61.7
Civil servant	21	6.1
Total	345	100.0

Percentage Distribution of Participants by Religion

With regard to participants' religions, the analysis showed Christianity and Islam as the predominant religions in the study area. These two reflect the most widely practised religions in Nigeria, though some participants also followed traditional African religions. Many Nigerian women associate breast cancer, or any other cancer, with spiritual causes - this was affirmed by participants in the FGD sessions.

Table 4.6 Percentage Distribution of Participants by Religion (N=345)

Religion	Frequency	Percentage
Traditional religions	8	2.3
Islam	131	38.0
Christian	206	59.7
Total	345	100.0

Percentage Distribution of Participants by Income level

The data concerning the income level of participants revealed that 99 (28.7%) of the women had a sufficient family income perception; 142 (41.2%) had a “fairly sufficient” family income perception; 38 (11.0%) perceived a “just sufficient” family income; while 66 (19.1%) others perceived an insufficient family income. Only a few of the respondents had sufficient income, an indication of the poverty level in the study area.

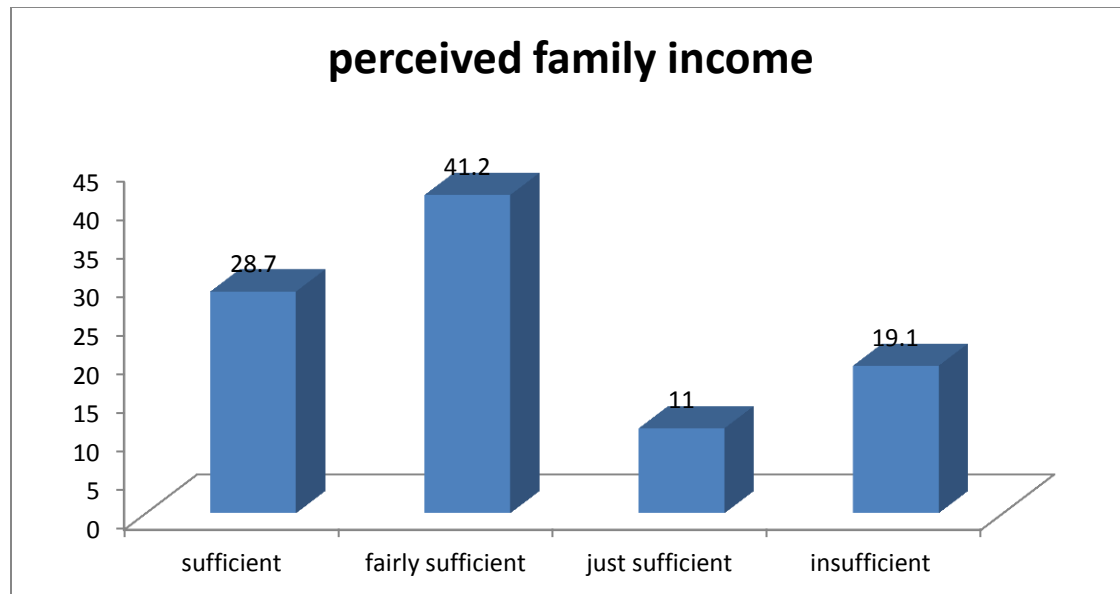


Figure 4.1 Perceived Family Income Level of the Participants

Knowledge of Breast self-examination

The study revealed that 258 (74.8%) of the respondents had no knowledge of BSE, while 87 (25.2 %) indicated that they had knowledge of BSE. These data were derived from the nine indices of the Health Belief Model that were used to gather information on the women's knowledge. The findings showed that the participants did not have knowledge of when, how and by whom BSE should be done. The women who responded with "I don't know" or "No knowledge" were categorised as not having the knowledge of BSE (Figure 4.2 and Table 4.7 below refer).

Table 4.7 Participants' Knowledge of Breast Self-Examination (N=345)

Knowledge of Breast Self-Examination	Frequency	Percentage
No knowledge	258	74.8
Knowledgeable	87	25.2
Total	345	100.0



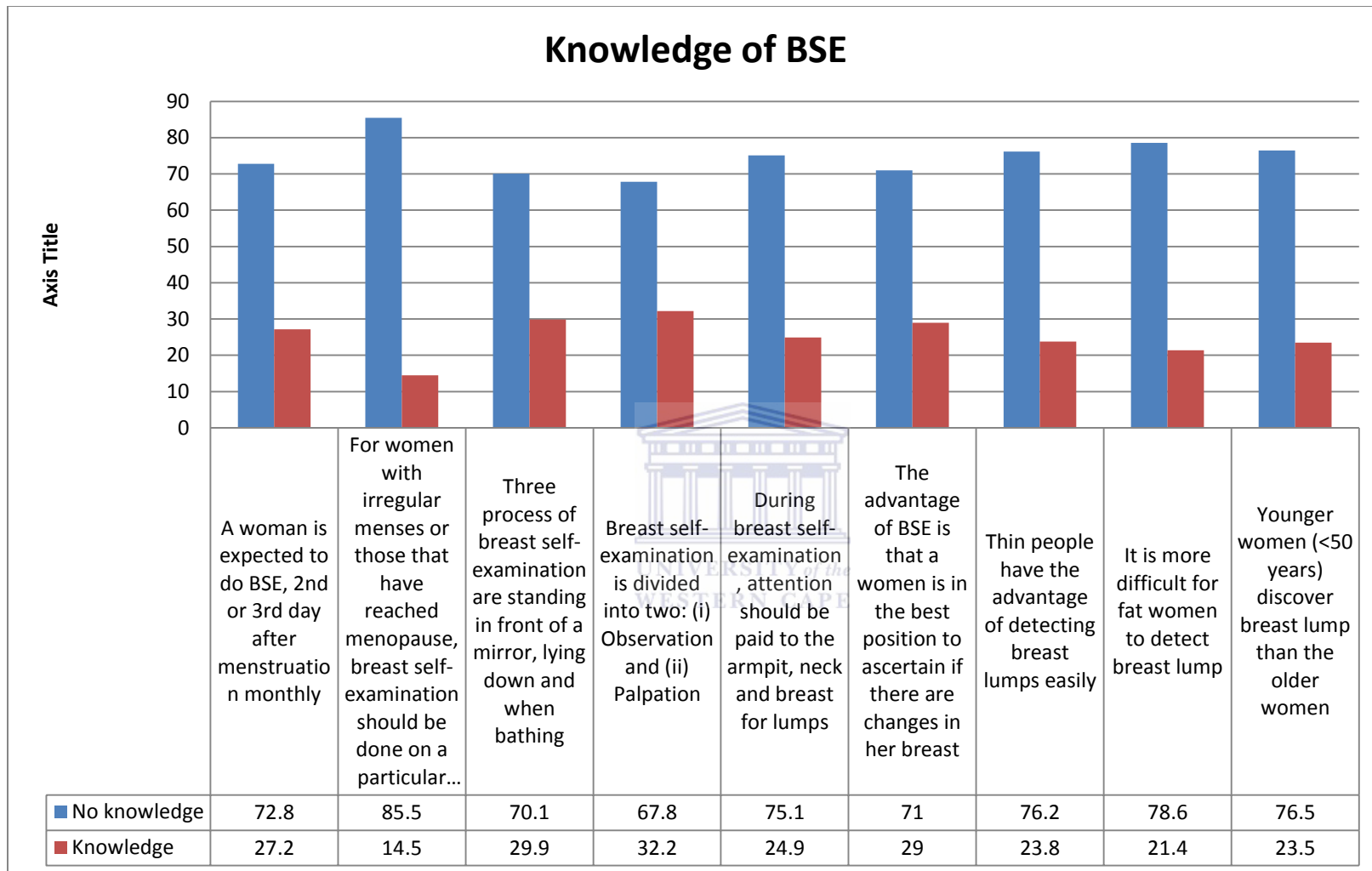


Figure 4.2 Knowledge of Respondents on Breast Self-Examination from Health Belief Model items

Sources of Information on Breast Cancer

In considering their sources of information on breast cancer, 164 (47.5%) of the respondents obtained their information from health professionals; only 13 (3.8%) of them received their information from friends or neighbours; 74 (21.4%) heard it from the radio; and 94 (27.4 %) of the women had no information at all (Table 4.8). A large number of them indicated that they had no information at all.

Table 4.8 Respondents' Source of Information about Health Issues

Variables	Labels	Frequency	Percentage
Information about health issues	No information	94	27.2
	Health professionals	164	47.5
	Friends/neighbours	13	3.8
	Radio	74	21.5
Total		345	100.0

Practice of Breast Self-Examination

The results also showed that 276 (80.0%) of the respondents did not practise BSE, while 69 of them (20.0 %) practised it (Table 4.9). All 15 of the items in the practice questions, as stated in Figure 4.3, showed that participants do not practise BSE. The result with the lowest percentage was the question of BSE practice. This was the summarised result of the question, consisting of 15 items, on the step-by-step process of BSE practice. The women who responded

with “I don’t know” or “No knowledge” were categorised as not practising (Table 4.9 and Figure 4.3).

Table 4.9 Practice of Breast Self-Examination

Practice of Breast Self-Examination	Frequency	Percentage
No practice	276	80.0
Practice	68	20.0
Total	345	100.0



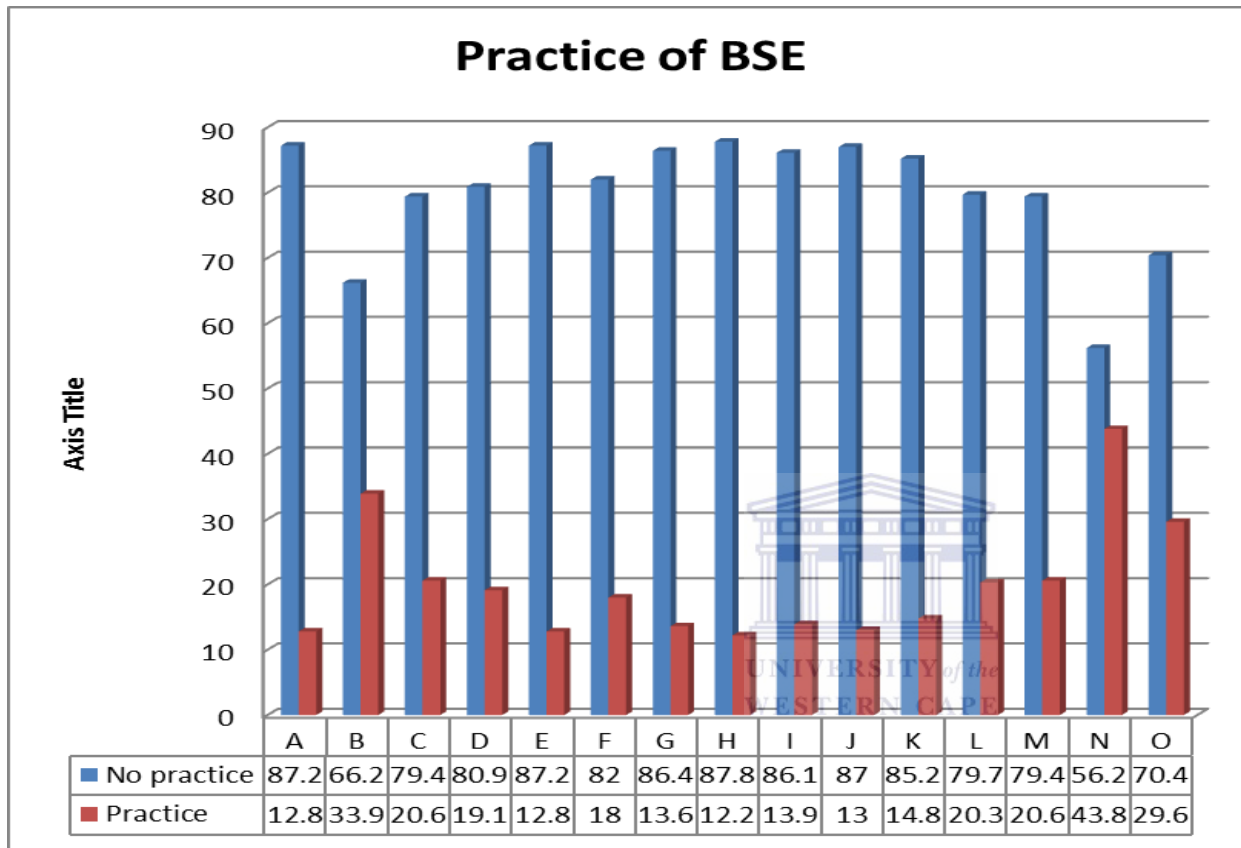


Figure 4.3 Practice of Respondents of Breast Self-Examination

KEY	Items on practice of Breast Self-Examination
A	Stand in front of a mirror
B	Look at the breast and note any difference in shape, size nipple
C	Check for swelling, increased warmth or tenderness in either breast
D	Look at the nipples for size, shape and direction in which they point
E	Check for rashes or sores and nipple discharge
F	Look at breast while by putting hands over her head and presses her hands on her side
G	Check breasts are equal in front of a mirror
H	Lies down on bed to check the breast
I	Look at left breast note any difference from the right breast
J	Place pillow under left shoulder and place her arm over her head
K	Palpate the entire breast round and note any swelling or tenderness
L	Squeeze the nipple gently and note any discharge
M	Do the same for the right breast sitting up and with her arms at sides
N	Do you sit up and raise arm to palpate the tail of the breast and check for swelling or tenderness
O	Do the same for the right side

Barriers to Breast Self-Examination Practice

The data analysis revealed that 264 (76.7 %) of the respondents identified barriers to BSE, while 81 (23.3%) did not perceive barriers to BSE. The study also revealed that women were fearful of finding breast cancer as a consequence of self-examining their breasts. Some felt embarrassed to examine their breasts, while others expressed worry about the outcome of such examination as unpleasant, 81.4% of the participants indicated lack of privacy as a barrier to practice, while 84.9% of the participants stated that BSE taking too much time, and 83.5% said unpleasant feelings associated with BSE were barriers to practice (Table 4.10 and Fig 4.4).

Table 4.10 Barriers to Breast Self-Examination Practice

Barriers to Breast Self-Examination Practice	Frequency	Percentage
Perceived barrier to Breast Self-Examination	264	76.7
Perceived no barriers	81	23.3
Total	345	100.0

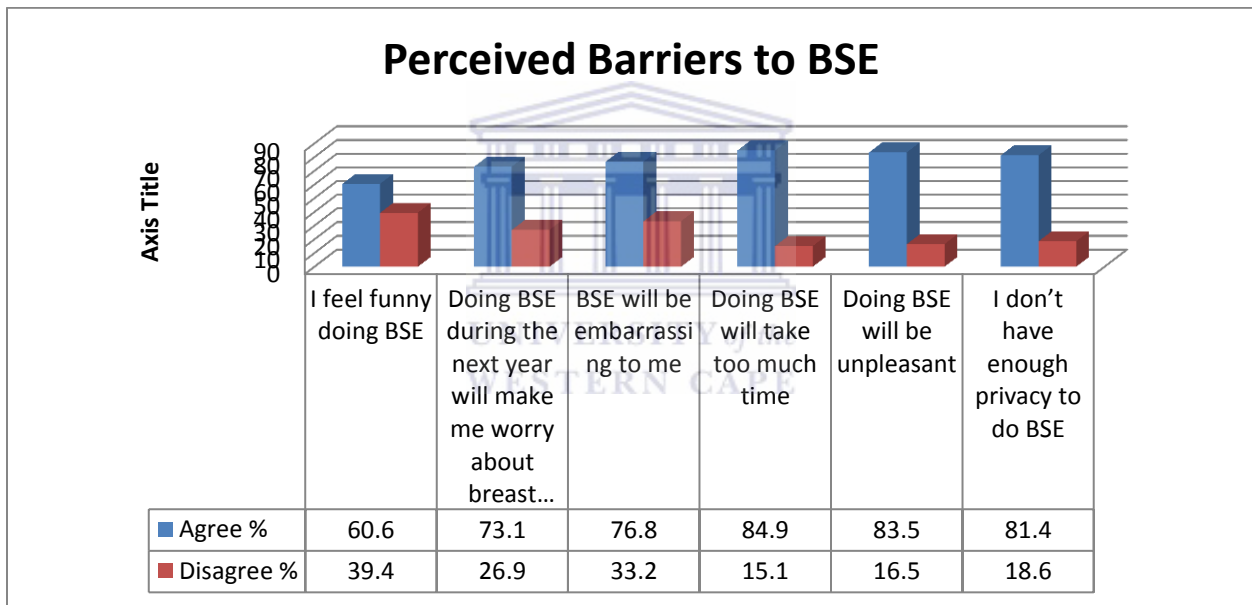


Figure 4.4 Barriers to Breast Self-Examination Practice

Health Belief Model

In agreement with Champion and Strecher (2002) and Foxall, Barron and Houfek (1998), who used the Health Belief Model as a framework for breast cancer screening, many of the participants (204 or 56.1%) had a perception of their susceptibility to breast cancer and 299 (86.7%) were aware of its seriousness; 141 (40.9%) were not aware of their susceptibility and 46 (13.3%) did not know about the seriousness of the disease (Figure 4.5). The results also revealed that 68 (19.7%) of the respondents had a poor perception of the benefits of BSE, while 277 (80.3%) had a good perception of the benefits of Breast Self-Examination in preventing breast cancer. Furthermore, 89 (25.8%) of the respondents were confident in performing Breast Self-Examination to prevent breast cancer, while 256 (74.2%) were not confident (Figure 4.3).

The results also showed that while 45 (13.0%) of the respondents were not positive that a health motivation could improve Breast Self-Examination practice, 300 (87.0%) were positive that a health motivation improves the frequency of practice. This supports the necessity of an empowerment programme in the study area.

In analysing the Health Belief Model responses of participants those with neutral responses were considered as not agreeing with the item stated.

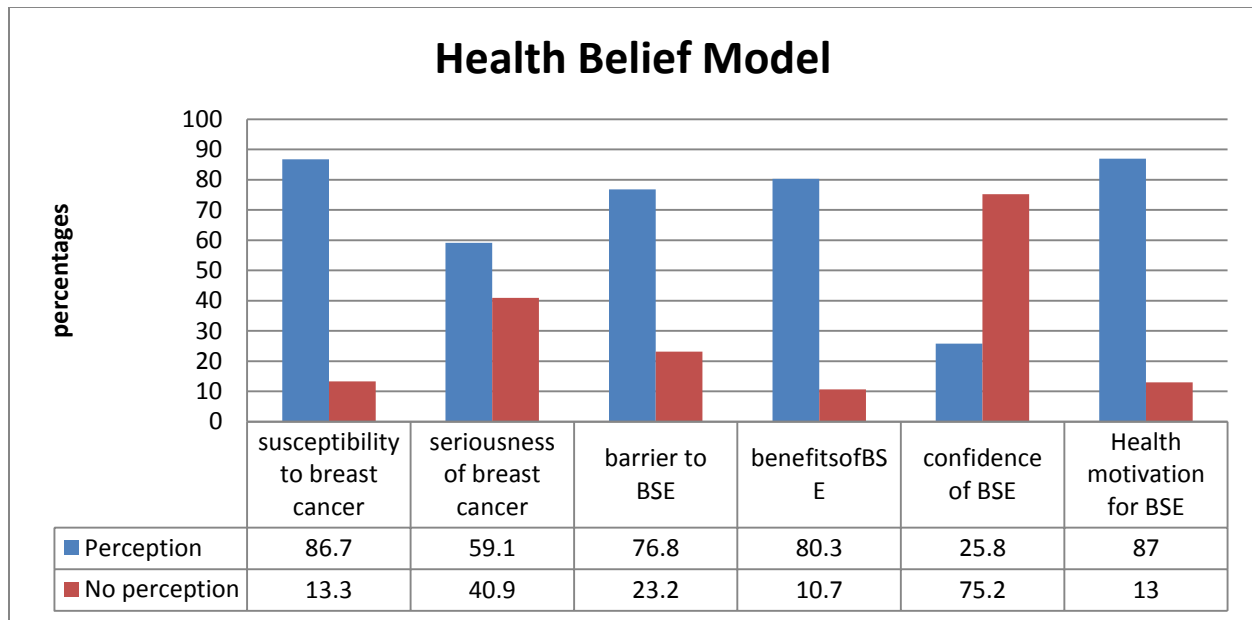


Figure 4.5: Respondents' Perception of Health Belief Model Components

The implication of the findings in the first phase is such that 75.1% of the participants had no knowledge of BSE; 76.5 % of them did not practise BSE; and 76.8% of them indicated the presence of barriers to the practice of BSE.

4.2 Phase Two: Reflect

Data information on objectives one, two and three were obtained using the survey in phase one; phase two using the FGD sessions provided an in-depth view of the participants' opinions on BSE. The reflect stage is divided into analysis of observations and drawing of conclusions. To achieve the objectives of this phase the researcher selected 90 of the women from phase one to reflect on the findings of phase one, which revealed that the BSE knowledge level was 24.1%, the practise level was 23.5% and 76.8% of the women perceived barriers to practise. These findings of phase one were used to guide the phase two.

Participants were to give their opinion on the three problem areas as revealed by the findings:

1. Low level of knowledge of BSE: Participants were to discuss their opinions on the findings, whether they agree or disagree with the results, and new ideas in this regard.
2. Low levels of BSE practice: Participants were to discuss their opinions and whether they support the findings.
3. Identified barriers to BSE practice: Participants were asked what they think about the results, whether they agree with the findings, and whether there are other barriers that had not been captured in the findings.
4. Lastly, participants were asked to give their opinions on the way forward, to ensure practise of BSE.

Three major themes emerged from phase two during the FGD, while reflecting on the findings of phase one. The three themes that emerged were: knowledge/awareness of BSE, practice and appeal for intervention, and misconception and fear. The responses to the four research questions was used as trigger questions in phase two are discussed below.

4.2.1 Knowledge/Awareness of Breast Self-Examination

The level of understanding of BSE was very low among the participants. Their understanding of BSE was revealed in the first question of the reflection guide, which was “Low knowledge of BSE - agree or disagree”. The responses of the participants during the reflection phase can be categorised into two major observations: they had a complete lack of knowledge/information, or they had some form of inadequate knowledge.

Some of the answers showed acquaintance with incorrect information – either the information was not passed down well by the source of information, or the source of information was inadequately informed himself/herself; it is also possible that the source had inadequate time to ensure proper understanding by the receiver. The responses thus showed that women in the study area had a relatively low level of knowledge of BSE as a method of preventing breast cancer. The findings of phase 1 revealed that 75.1% of the respondents had no knowledge of BSE.

Responses of many participants read as follows: *“We have never heard of this before”*. The findings from the FGD showed that the women were unaware of BSE. For instance, when each participant was asked *“Have you heard about breast self-examination?”*, a recurrent response was *“No, I have not heard about before, I only heard when you asked some weeks ago”*(FGD group 1). However, some participants claimed to have heard about it:

“When you press your breast for growth or there is no hardness in any of the breast?” (FGD group 2)

“Though we have heard about breast diseases, we don’t know what is all about. Unless you tell us, we may never know.” (FGD group 6)

Other responses of the FGD participants included the following:

“Feeling an unusual movement or a lump in the breast or the armpit.” (FGD group 8)

“Is it not when one breast is bigger than the other when you look at your breast when bathing?” (FGD group 9)

All of the responses above indicate a lack of understanding on how to perform BSE, which agrees with the findings in phase one.

However, one of the respondents who claimed to have knowledge of breast cancer

narrated a tragic case:

“I heard about this in school, when they told us something concerning our breasts. I used to have a sister that had the breast problem. Getting to a point, one of her breasts was cut off. And she died after a year or so.” (FGD group 4)

4.2.2 Practice of Breast Self-Examination and Appeal for Intervention

On the second question of the reflection guide, 23.5% of women who indicated that they do practice BSE in phase one did not reflect in their responses. Reflection on practice findings was discussed in line with the second theme, where women appealed for intervention that will encourage practice. Some responses agreed with the findings of a very low level of practise, and those who did respond that they practise BSE don't actually follow the procedure correctly. Also, some group members did not know the timing, frequency and correct procedure for BSE. Here are some of the responses on the practice of BSE:

“We don't examine the breast. It's like playing with one's breasts (FGD groups 2,4,5)

“We have never had any opportunity to examine ourselves because we do not know how to do it and there is nobody to train us on how to do it. Moreover, we don't know when to examine our breast.” (FGD groups 3, 8 and 9)

“Fiddling with my breast is not of any importance, it's my husband's that does that for fun.” (FGD group 3)

“When you teach us and we know what to do, we will practise it. Let us demonstrate it to you.” (FGD groups 5)

As revealed by women in the FGD, many reflected they had not been practising BSE due to lack of know-how. It was also shown that the few respondents who claimed to have examined their breasts for early detection did not do so in line with the recommended practices. The FGD sessions did, however, illustrate that the participants were eager to learn about BSE, as reflected in the following responses:

“Please teach us. We want to know so as to teach our women who are not here.” (FGD groups 1, 3, 4, 5 and 6)

“We do not know how to do it. Teach us.” (FGD groups 1, 2, 4 and 7)

“Whatever we hear and see how is done, may be it will remind us by keeping it in our head to do this way, we will not forget.” (FGD groups 4, 5 and 9)

“Let us have a women’s day like the antenatal and infant welfare days, to remind us on need for practice.” (All FGD groups)

The responses above are an indication of the participants’ agreement that the level of practise of BSE is low, as indicated in phase one findings. They therefore requested practical demonstrations of BSE practices and the step-by-step process of BSE was demonstrated by the researcher with a breast model. The group highlighted the need to have information guides and pamphlets both for the FGD participants and non-participants. The participants also indicated that they wanted to be able to teach BSE practice to others, after the empowerment or intervention training/programme. They argued that the pamphlets *“will persuade women and their husbands on the purpose of this meeting”*. Finally, they agreed with the results indicating low levels of practice, as reflected in their responses.

4.2.3 Barriers to Breast Self-Examination Practice (Misconception and Fear)

During the participants' reflection on the third question - regarding barriers to Breast Self-Examination practice among the women - misconceptions and fear were identified as major barriers to BSE practice among the respondents. At the FGD reflection sessions this was highlighted by the responses of the women:

"Frequent breast examination will make one detect a growth. The breast is a private area that should be kept as such." (FGD groups 1, 2, 4, 8 and 9)

"Jejereomu [breast cancer] is an affliction of witches. It definitely kills the sufferer. I'm afraid of talking about this disease." (FGD groups 3, 4, 5 and 6)

"We don't want to talk about breast cancer because when you talk about a disease, the spirit of that disease can inflict or make it happen to you." (FGD groups 2 and 4)

"Pressing your breast will make you develop a lump, which is the same as breast cancer." (FGD groups 7 and 8)

"It is a disease that makes them remove your breast? It is scaring." (All FGD groups)

"Examining one's breast takes much of one's time - a time one should be in the market selling or in the farm." (FGD groups 1, 6 and 9)

"No, you must not talk about issues like that, it's hard to discuss. We hardly talk about sexual issues." (All FGD groups)

However, some of the participants encouraged the others, and implored them, saying:

“Let us hear what it [Breast Self-Examination] is. Let us learn when and how it can be done and why.” (All FGD groups)

Other responses were as follows:

“If there are benefits of breast self-examination, as we shall see in the demonstration, we will practise it and avoid an incurable disease.” (FGD groups 1, 6, 8 and 9)

“A friend and a family member has breast problem during breast feeding and thought it was because the baby did not suck long enough on the breast, but later became very sick and died without going to the hospital. The mother-in-law looked after the baby.” (FGD groups 3 and 5)

“What you don’t know how can you practice it? Checking one’s breast is not part of a woman chore, you have to do so many things like cooking, going to the market to sell, not a thing like that.” (FGD groups 1, 2, 6 and 7)

“Of what importance is examining breast when you are not feeding a baby, what will you be looking for?” (FGD groups 4 and 5)

Some women linked BSE to some inadequacies of breast-feeding, such as the baby not feeding well on the breast. Lack of breast-feeding for as long as two years is not an accepted norm in this cultural setting, as revealed in the comment here:

“Hardly do we go into these private things, even if you want to mention it, your friends will think you are wayward, so how can you mention things like that first?” (All FGD groups)

With regard to the barriers to, the majority of the participants said that they felt funny doing BSE. As stated earlier, a few of them revealed misconceptions and fear that the mere discussion about breast cancer could cause the disease, or that the practice involves pressing the breast and developing lumps. For these reasons, these women avoid the practice.

4.2.4 The Way Forward

The last question that the participants of the FGD sessions were posed was: “What is the way forward?” During the FGD reflection sessions and from various responses during the sessions, as stated above, a number of suggestions arose, which are reported below. This included the following:

“Let us have demonstration, talk, and pamphlets as a reminder. Your talk and explanation has reduced our fear and myths about breast cancer.” (FGD groups 3, 4, 5 and 6)

Use of a song to serve as a common method of information dissemination and reminder in rural communities like Iddo, used in this study, has been found to be very useful in informing about antenatal clinic and infant welfare clinic attendance. Hence their request for a song, as stated in this response:

“Teach us a song, like the antenatal care song, to remind us of the steps and processes.”
(All FGD groups)

“Radio jingles like safe motherhood (Iya abiye) will also help as reminder to practice.”
(FGD groups 4, 5, 6 and 7)

Consensus was reached on the suggestions from all of the groups, and this resulted in the recommendations provided in phase three. The participants’ suggestions on the way forward and

extracted data are presented in Table 4.11.

In summary, the results revealed that knowledge and practise levels of BSE were low. Very few participants practised BSE, and those that did so, did not do it properly, as stated in their reflection responses. They also have barriers to BSE practice, identified as misconceptions and fear about the practice. Their major source of information was 'health workers'. The suggestions of the participants during the FGD reflection were used in phase three of this study, to form the recommendations in the planning stage.



4.3 Phase Three: Plan for Change

Table 4.11 Suggestions of Focus Group Discussion Participants

S/N	Suggestions	Extractions from data collected
1	Provision of information to women on understanding Breast Self-Examination and its practice and the addressing of barriers by the researcher Provision of health education by researchers and health workers at health centres, on market days, in churches, mosques and women's meeting days by health workers	<i>"Though we have heard about breast diseases, we don't know what Breast Self-Examination is all about. Unless you tell us, we may never know."</i> - FGD group 6
2	Physical demonstration of the Breast Self-Examination procedure as well as demonstration on a breast model, and the viewing of a video	<i>"Let us hear what it [Breast Self-Examination] is. Let us learn when and how it can be done and why."</i> - all FGD groups. <i>"If there are benefits of breast self-examination, as we shall see in the demonstration, we will practise it and avoid an incurable disease."</i> - FGD groups 1, 6, 8 and 9
3	Peer demonstrations and counselling to each other	<i>"Please teach us. We want to know so as to teach our women who are not here."</i> - FGD groups 1, 3, 4, 5 and 6 <i>"If there are benefits of breast self-examination, as we shall see in the demonstration, we will practise it and avoid an incurable disease."</i> - FGD groups 1, 6, 8 and 9
4	Provision of customised pamphlets that show the step-by-step process of Breast Self-Examination	<i>"Let us have demonstration, talk, pamphlets as a reminder."</i> FGD groups 3, 4, 5 and 6
5	Selection of a day in the week when women's health issues will be addressed, with emphasis on Breast Self-Examination, such as antenatal clinic day and Infant welfare day	<i>"Let us have a women's day like the Antenatal and Infant welfare days to remind us on need for practice."</i> - All FGD groups
6	Radio jingles and talk on Breast Self-Examination	<i>"Radio jingles like safe motherhood (Iya abiye) will also help as reminder to practice."</i> - FGD groups 4, 5, 6 and 7
7	Composing a song (mnemonic) such as is done in other clinics, to act as a reminder	<i>"Teach us a song, like the antenatal care song, to remind us of the steps and processes."</i> All FGD groups
8	Practical demonstration of Breast Self-Examination	<i>"When you teach us and we know what to do we will practise it. Let us demonstrate it to you."</i> – All FGD groups.

Objective four of the research study - the development of an empowerment programme - was addressed in phase three (the planning phase). As the suggestions from the FGD sessions were similar, 10 women from the groups in phase two and the five health workers were selected for the working group session. In addition, the nurse expert (registered nurse/ midwife) and the medical consultant joined the group as expert reviewers. Phase three involved planning for a change in behaviour through an empowerment programme for BSE aimed at the prevention of breast cancer among the women. In this phase the suggestions made in phase two were turned into recommendations, stating the activities to be done, the parties responsible for the activities, and the indicators. The recommended actions formed the components of the programme that was developed.

The components of the recommendations for planned change in phase three consisted of the following:

- Health talks given to the participants by the researcher on understanding and practise of BSE. The researcher also explained and allayed the misconceptions and fears of the participants.
- Health education to be provided to women in the market, religious centres, at both formal and informal meetings of the community and in health centres, by the researcher and health workers.
- Physical demonstrations and training of the women on the BSE procedure as well as on a model by the researcher and the viewing of a video by the participants.
- Women/peer demonstrations and counselling to each other after the programme's implementation.

- The provision of pamphlets and posters to serve as guides and reminders to the women on BSE practice.
- Collaborating with health workers to provide information and health education on BSE to the women during antenatal and infant welfare days and the selection of a day of the week for women's health issues.
- An interactive radio programme and jingles on BSE practice, as has previously been created for other health issues, such as prevention of HIV/AIDS and other diseases.
- Composing and teaching a BSE song to women to act as mnemonic (oral mental reminder tool).
- Physical demonstrations by the women after the programme's implementation.

4.3.1 Recommended action

Phase three examined the recommendations that were developed based on the findings of phase one and suggestions from the FGD reflection sessions. The researcher explained the process of the research study from phase one to phase three of programme development to the working group, the health workers and the nurse experts (registered nurse/midwife and medical consultant). There were discussions on the recommendations and empowering programme that was developed for the women on BSE practice.


Table 4.12 Recommendations


S/N	Recommendations for Planned Activities	Responsible Party/Parties	Planned Action
1	Provision of information to women by the researcher on Breast Self-Examination understanding, practice and Breast Self-Examination barriers, and health education by health workers in the health centre	Researcher and health workers	Health talk Demonstrations on model
2	Provision of health information to women by health workers on market days, in churches, mosques and women's meetings	Researcher and health workers	Health talk Demonstrations on model
3	Physical demonstration of the Breast Self-Examination procedure and the viewing of a video	Researcher Women	Demonstrations on a model and women. Checklist provided on Breast Self-Examination for demonstration
4	Peer /women demonstrations	Women	Demonstration on a model
5	Provision of customised pamphlets that show the step-by-step process of Breast Self-Examination	Researcher	Pamphlets
6	Selection of a day in the week when women's health will be addressed with emphasis on, such as antenatal clinic day and infant welfare day	Health workers Government	Demonstrations on a model Policy statement
7	Radio jingles and talk on Breast Self-Examination Breast Self-Examination kit to women by the state government initiative	NGO or Philanthropist	Paid advertisement
8	Composing a song, such as previously done in other clinics to act as a reminder	Researcher	Mnemonic song composed and taught to women

4.3.2 Actual planning

The actual planning stage involved the development of the programme based on the recommendations above. The programme used the themes that had emerged in the construction of the programme, following the Kieffer empowerment process. In this phase the empowerment programme was developed for women to promote the practice of BSE aimed at the prevention of breast cancer. The development of the program Table 4.13 were based on the findings of the study, suggestions of the women that emerged during the FGD sessions based on the themes in phase two and the recommendations for action in the planned change in phase three , using the Kieffer empowerment process in the actual planning stage. The programme was endorsed by the working group, comprising a number of the women and the health workers through consensus agreement. The two expert reviewers – the nurse experts (registered nurse/ midwife) and the medical consultant, who have experience in maternal and child health care services - validated the process of the study. The expert reviewers completed expert reviewer forms and gave immediate feedback during the working group session (see Annexure K). The empowerment programme on BSE for women aimed at the prevention of breast cancer is discussed in detail in Chapter five. The programme that was developed is shown in Table 4.13.

Table 4.13 Empowerment Programme that was developed

S/N	Input	Process	Kieffer Process and Stages of Change	Programme Developed from Themes	Impact
1	Teaching /information dissemination	<p>Group discussion/teaching by researcher at FGD session.</p> <p>Health information provided by the researcher and health workers during FGD.</p> <p>Health information from health workers in clinic on a day selected for women’s health and during follow-up visits.</p> <p>Peer information and counselling</p>	<p>Entry (Contemplative)</p> 	<p>Awareness on identified health issues</p>	<p>More informed women on Breast Self-Examination and breast cancer.</p> <p>Good relationship between health workers and women in the community.</p> <p>Committed health workers to women’s health issues.</p> <p>Misconceptions and fear allayed by the researcher.</p>
2	Demonstration	<p>Demonstrations of Breast Self-Examination on model done by the researcher during FGD in phase 2.</p> <p>Demonstrations during sessions and at various areas religious meetings and the market by the researcher and participants.</p>	<p>Advancement (Preparing)</p>	<p>Knowledge and improvement of information</p>	<p>Correct and regular performance of Breast Self-Examination.</p> <p>Peer information dissemination to other women in religious meetings and market meetings.</p>

S/N	Input	Process	Kieffer Process and Stages of Change	Programme Developed from Themes	Impact
		Observation by researcher and health workers during hands-on demonstration by participants using a checklist developed by the researcher for evaluation.			
3	Communicating Breast Self-Examination messages	Viewing of video on BSE procedure during FGD shown by researcher. Radio jingle to be funded. Pamphlets/flyers. Campaigns and songs.	(Action)  UNIVERSITY of the WESTERN CAPE	Knowledge and improvement information	Use of pamphlets developed by women. Mastery of the song that was composed. Misconceptions and fear allayed by researcher.
4	Sustenance /change of attitude	Monthly BSE practice. Improved health worker/client relationship. Weekly women's health clinic. Health visits. Regular practise of BSE	Incorporation (Action)	Attitudinal and behaviour change	Weekly health visits to the health centre. Regular visits evident by health workers report on attendance at the women's health clinic days. More effective and responsive government policy.

S/N	Input	Process	Kieffer Process and Stages of Change	Programme Developed from Themes	Impact
5	Follow-up	Health visits. Regular practise of BSE Distribution of examination kits and more pamphlets. NGO, philanthropist or local government to fund weekly advertisement.	Commitment (Maintaining)	Self-empowering for sustenance	Individual commitment. Regular visits evident by increase in statistics of attendance at the women's health clinic days. More effective and responsive government policy. Communication sustained between health workers and women.



4.4 Phase Four: Act

4.4.1 Implementation Phase of the Developed programme

Implementation of the programme was performed by the women through practical demonstration of BSE by the women. Seventy five women were observed using the checklist for the step-by-step BSE procedure prepared by the researcher (Annexure J). During the health visit to the health centre on the selected women's health day, the researcher checked the attendance and the performance of BSE by the women who attended. Performance was also observed using the checklist (Annexure J).

Table 4.14 Observation of Breast Self-Examination Procedure (Using the Checklist) after program implementation

Observation of Breast Self-Examination Procedure (Using the Checklist)	Frequency	Percentage
Poor practice of procedure	11	14.7
Good practice of procedure	64	85.3
Total	75	100.0

Overall an improvement was evident in the practice of the women - from 23.5% at the beginning of the study to 85.3%.as shown in Table 4.14 with 14.7% having poor practice

Table 4.15 Observation of Breast Self-Examination Procedure (Using the Checklist) During the Health Visits

Observation of Procedure at Clinic	Attendance at Clinic	Good Performance	Poor Performance	Percentage
Week 1	15	12	3	80
Week 2	22	18	4	81.8
Week 3	30	26	4	86.6
Week 4	38	36	2	94.7
TOTAL	105	92	13	87.6

4.4.2 Percentage Distribution of Respondents by Observation of Practical Demonstration

The number of women who were able to demonstrate the procedure of BSE properly and in sequence, based on the knowledge acquired and the effect of the various components of the developed programme was 64 (85.3 %). The practice was observed using the checklist as a guide. Eleven (14.7%) of the women performed the procedure poorly, by not carrying out the examination in sequence. Those who still did not perform the BSE correctly were attended to during the weekly health clinic days.

4.4.3 Percentage Distribution of Respondents by Observation of Practical Demonstration during the Health Visits

The attendance at the weekly selected women's health day at the clinic increased from 15 to 38 women during the four weeks that the researcher made health visits. The correct practical

demonstration by women in attendance increased from 80% to 94.7%. Those who did not perform the BSE correctly were taken through the procedure using the breast model.

4.4.4 Initiation and sustenance of Communication

Communication was initiated between the women as well as between the health workers and women in the community:

“I don’t always speak with this woman although we live in the same village, but now we are talking, if not for this programme we are not friends.” (FGD group 4)

“Now the nurses are now relating with us as friends.” (FGD group 2, 3 and 8)

“So nurses can be this friendly sitting together with us to discuss instead of giving orders.” (FGD groups 5 and 6)

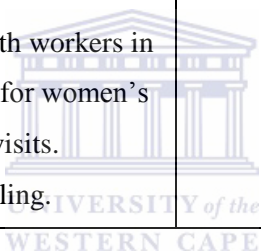
“We wish we can have this type of meeting that brings everybody together discussing a problem that affects women and can help us be healthy without being sick with serious diseases.” (All FGD groups)

4.4.5 Health Visits

Health visits by the researcher to the clinic, as prescribed by the outcomes of the activities of the empowerment programme, showed an increase in weekly attendance from 15 women during the first week to 38 in the fourth week. A total of 105 women attended the weekly women’s day at the clinic in these four weeks. They were observed practising BSE, using the checklist. The correct physical step-by-step performance of BSE by the women who attended the health clinic ranged from 80% to 94.7% each week.

Table 4.16 Evaluation of the Programme's Impact

S/N	Input	Activities	Instrument for Evaluation	Location	Impact Indicators
I	Teaching /information dissemination	<p>Group discussion/teaching by researcher at FGD session.</p> <p>Health information from researcher and health workers during FGD.</p> <p>Health information from health workers in PHC clinic on a day selected for women's health and during follow-up visits.</p> <p>Peer information and counselling.</p>	Participant observation	FGD centres Health centre	<p>Accurate demonstration on model</p> <p>Communication sustained by health workers and women</p>



S/N	Input	Activities	Instrument for Evaluation	Location	Impact Indicators
2	Demonstration	<p>Demonstration of Breast Self-Examination on model done by the researcher during FGD in phase two.</p> <p>Demonstration during sessions at the health centre and at various areas, religious meetings, the market etc. by researcher and participants.</p> <p>Observation by researcher and health workers during hands-on demonstration by participants in the health centre using a checklist developed by the researcher for evaluation.</p>	Participant observation and checklist	FGD centres Health centre	Accurate demonstration on model and practical demonstration by women
3	Communicating Breast Self-Examination messages	<p>Viewing of video on Breast Self-Examination procedure during FGD shown by researcher.</p> <p>Radio jingle to be funded.</p> <p>Pamphlets/flyers.</p> <p>Campaigns and songs.</p>	Media	FGD centres Health centre Radio jingles and programme not yet funded	<p>Good demonstration of Breast Self-Examination by women</p> <p>Pamphlets available to women</p> <p>Mastery of song</p>

S/N	Input	Activities	Instrument for Evaluation	Location	Impact Indicators
4	Sustenance	<p>Monthly Breast Self-Examination practice.</p> <p>Improved health worker/client relationship.</p> <p>Weekly women's health clinic.</p> <p>Health visits.</p> <p>Regular practice of Breast Self-Examination.</p>	Observation using checklist	<p>FGD centres</p> <p>Health centre</p>	<p>Attendance at the weekly clinic</p> <p>Good demonstration of Breast Self-Examination by women</p>
5	Follow-up	<p>Health visits.</p> <p>Regular practise of Breast Self-Examination.</p> <p>Distribution of examination kits and pamphlets.</p> <p>NGO, philanthropist or local government to fund weekly advertisement.</p>	Observation using checklist	No funding yet	<p>Attendance at the weekly clinic</p> <p>Accurate demonstration of Breast Self-Examinationby women</p>

4.5 Impact of Developed Program

The impact of the empowerment program developed (Table 4.16) was evaluated through various aspects of activities based on five inputs which are teaching / information dissemination, demonstration, media, sustenance and follow-up. The impact of the teaching and health information dissemination and physical demonstration and using a model and video shows improvement in the knowledge and practice of BSE as evident by improved performance of BSE using the breast model and practical performance on themselves during the evaluation process. This reveals that the information dissemination and demonstration was understood.

Communicating BSE messages was made available to the participants through viewing of video on BSE procedure; distribution of Pamphlets (Annexure H) with information that motivates and illustrates the step-by-step procedure for BSE, The participants acknowledged that this tool would keep reminding them of the importance and procedure of BSE. The BSE mobilisation song was composed also taught to the women by the researcher as a reminder and inspiration for BSE practice and there was mastery of the song. Radio jingles is yet to be funded by NGO.

Observation of the physical examination was done by researcher and health workers during hands-on demonstration by participants in the health centre using a checklist developed by the researcher for evaluation. The hands-on exercises made them better prepared for BSE practice and peer counselling Evaluation of performance was carried out through participant observation and the use of checklist.

The impact of the activities is shown by the number of women who were able to demonstrate the procedure of BSE properly and in sequence, based on the knowledge acquired and the effect of the various components of the developed programme with an overall improvement which was

evident in the correct BSE practice of the women from 23.5% at the beginning of the study to 85.3%.after implementation of the program was 64 (85.3 %). Sustenance and follow up was shown by the increase in women attendance at the weekly clinic meetings initiated by this program, this shows attitudinal change of behaviour to embracing the procedure. This is the immediate evaluation.

4.6 Chapter Summary

This chapter presents the findings obtained during the data collection using the four phases of the Participatory Action Research. Phase one presented qualitative data collection findings in frequency and percentages. Phase two presented the opinions of the women as reflected during FGD sessions, analysed using thematic data analysis and the emergence of themes. Phase three presented the working group session, the empowerment programme that was developed and the expert reviews, while phase four presented the testing of the empowerment programme and its effect on the BSE practice of the women. The participants used in all of the phases were presented, highlighting the socio-economic details, including their qualifications and geographical representation. The discussion of the findings is presented in Chapter five.

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.0 Introduction

This chapter presents discussion of the key findings of the study and the empowerment programme that was developed, which is the contribution of the study. The chapter is presented in five sections according to the research objectives of the study and the themes that emerged from the FGD reflection phase.

The first section discusses findings of the first objective, which is “to explore the understanding of breast cancer prevention through BSE among rural women of the Iddo Local Government community” derived via the survey information on the understanding /knowledge of BSE among the study participants. The second section presents discussion on the second objective - “to investigate the practice of BSE among women in the Iddo Local Government community”. The third section presents the findings of the third objective, which involved the identification of the barriers/challenges to BSE practice among women in the Iddo Local Government community. The fourth section presents the fourth objective - the development of an empowerment programme for BSE aimed at the prevention of breast cancer.

The empowerment programme is discussed in detail in Chapter six. The programme was developed based on the three themes that emerged from the study, following Kieffer’s (1984) stages of the empowerment process, which are entry, advancement, incorporation, and commitment.

The fifth section of this chapter presents the implementation of the empowerment programme that was developed and its effect on the women’s practical demonstration of BSE in

the acting phase of the Participatory Action Research process.

5.1 Discussion of Findings

The discussion of the quantitative data collected during the survey is presented in this chapter, as the discussion on the findings during the FGD sessions have already been discussed in Chapter four.

5.1.1 Socio-demographic Data

Of the 346 copies of the questionnaire that were administered, the one copy that did not return could not have affected the outcome of the study in any way. The data on the population distribution of the respondents in the five wards of Iddo Local Government showed that Apete had the highest number of respondents. This was deliberate and by design, as Apete is the most populous of the wards. Guvenc, Guvenc, Tastan and Akyuz (2012) reported that some socio-demographic variables about breast cancer influence their knowledge of breast cancer, and screening activities.

Meer, as cited by Kongolo and Bamgbose (2002), suggested that there is considerable evidence that rural women are neglected and, as a result, overlooked in opportunities for development. The reasons for not empowering women, mostly those in rural areas, are often ascribed to sex/gender, poverty, power, education, domestic violence and cultural repression. Lack of decision-making power on women's health issues is also a factor. This is also applicable to woman in the area of BSE practice and other healthy behaviours - hence the selection of the Iddo rural community for the study.

Age is an important factor in the incidence of breast cancer. The respondents' ages ranged from 20 to 60 years, with 126 (36.5%) of them being between 20 and 30 years old. This is not unexpected, as most women of childbearing age in Southwest Nigeria, where this study was carried out, have been reported to fall into this age bracket (Oluwatosin & Oladepo, 2006; ACS, 2011). Another study grouped the majority of these women in the age range of 20–50 years (Ravichandran et al., 2011). The ACS (2011) recommended that starting from age 20, women should be educated on the benefits and limitations of monthly BSE practice, since advancing age has a strong correlation to cancer of the breast. Generally age is found to be an important factor in the incidence of breast cancer; hence, age at first menstruation, age at first live birth, and age at menopause are strong determinants of breast cancer. Another study revealed that there is a higher proportion of young females with breast cancer in Nigeria than in many developed countries (Ntekim & Nufu, 2009).

About 80% of the respondents were married, while 12% of them were unmarried and were thus under their parents' care. This was expected and in agreement with previous findings. In Yoruba culture, to which the study population belonged, women are expected to be married before the age of 40 years. Ravichandran, Al-Hamdan and Mohamed (2011) stated that women over 45 years of age and married women are generally more likely to practise BSE than women of other categories. This may be due to the fact that married women are more exposed to information concerning health issues, health care facilities and health professionals, perhaps through pregnancy care, antenatal and postnatal examinations and infant welfare clinics, and are more concerned with the general well-being of their families.

The study also found that respondents with no formal education or primary education only were in the majority. For a rural Nigerian setting, this finding was not out of the ordinary,

hence the recent intensification of advocacy on girl-child education, especially in the rural areas in Nigeria (Galobardes, Shaw, Lawlor, Lynch & Smith, 2006). Indeed, girl-child education improves health care-seeking behaviour of women and, consequently, reduces morbidity and maternal mortality rates in a society. Akpo, Akpo and Akhator (2009) reported that education is an essential factor in the receipt and uptake of health information and services. The low level of formal education and exposure, and especially social confinement to rural life, were perhaps responsible for the large-scale lack of knowledge on breast cancer prevention in the Iddo community. The role of education in the uptake of preventive services, such as BSE, has often been reported (Khokher et al., 2012; Ravichandran et al., 2011; Rasu, Rianon & Shahidullah, 2011). Non-access to education among many women in SSA countries has compounded the problem of non-access to information on BSE and other healthy behaviours/practices. Information empowers people to make informed decisions. Illiteracy, on the other hand, prevents people from making informed decisions, including those concerning health.

This does not mean that formal education always converts knowledge and experience to practices of health promoting and illness preventing modalities/strategies. Akpo et al. (2009), for example, found that women with formal medical training and with these significantly high levels of formal education did not necessarily practise BSE or present themselves for Clinical Based Examination.

Furthermore, the study found that almost all of the respondents were engaged in trading, farming or full-time housewife activities. A few others worked as civil servants in either their respective local government offices or urban areas. Akpo et al. (2009) also found that farming and petty trading were the major occupations in most rural Nigerian communities, which is in agreement with the current study.

The participants were mainly Christians and Muslims, belonging to the two predominant religious groups in the Local Government Authority. The ethnic group in Southwest Nigeria, to which the Iddo community belongs, is Yoruba, a group that also practises traditional African religions (Adebamowo & Adekunle, 2006). However, neither ethnicity nor religion in this case had any significant effect on knowledge or practice of BSE. The majority of the participants had been living with their families in their respective communities for more than five years. Living with one's family is acceptable in the Yoruba culture. It allows for the rearing of children in a communal setting. Communal living also promotes information dissemination on healthy behaviour, such as BSE.

The findings also revealed that only a few of the respondents had sufficient income, which reflects the population's poverty level. Studies have shown that many Nigerians live on less than US\$1 per day (WHO, 2008). Accessibility and affordability of health services are often issues of concern because of poverty. The lack of access to secondary health facilities in urban areas when either a breast lump or breast cancer is diagnosed is thus an effect of poverty. It has also been implicated in the non-compliance with cancer treatment among women diagnosed with breast cancer. Sim, Seah and Tan (2009) discovered that low-income Malays were not as educated as their Chinese counterparts in Singapore and that they had very poor access to health services. They concluded that economic status makes poor people look for cheap and substandard methods of treatment. They therefore look out for cheap methods for breast screening, such as BSE, which agrees with the results of this study, due to their low income level.

5.1.2 Knowledge of Breast Self-Examination

The findings of the first objective of the study on exploring the knowledge of BSE among the women in the Iddo community revealed that there was a low level of awareness of BSE. This is discussed as the second theme that emerged from the FGD reflection sessions, which is knowledge and awareness of BSE.

More than half of the women who were studied had poor or no knowledge of BSE. Data from the FGD sessions also strengthened this, as 74.8 % of the participants indicated that they had no knowledge of when, why and by whom BSE should be done. This was perhaps also influenced by their level of education and other socio-demographic characteristics, such as the rural settings in which they live. Parvani (2011) affirmed that knowledge of breast cancer helps women to overcome other breast diseases and helps to reduce morbidity among women. Hence emphasis was placed on the need for women to have the knowledge of diseases and measures for preventing them, such as BSE in the case of breast cancer.

The low level of knowledge of BSE may also be due to the fact that no one had ever approached the community to provide breast cancer sensitisation talks or to promote prevention measures through BSE. Indeed, some form of information had reached the women through health workers, but this was shown to have been insufficient. The distance of the studied villages to the only health centre serving them, was also indicated to be a barrier to information accessibility. The participants had been living in these villages for their entire lives, but studies have shown that in Nigeria health information, including free discussions on BSE, is mostly available only in health centres in urban areas (Fields, 2004; WHO, 2008). Moreover, the participants were mainly traders and farmers, who claimed that they did not have enough time to spare on such health issues as BSE due to the amount of time they need to spend earning a

livelihood.

Culturally, women in the study area share in the upkeep of their children. Although the area is a patriarchal society, where the man is mainly responsible for the upkeep of the family, the women have to bridge the gap where their men fail in their responsibilities (Adebamowo & Adekunle, 2006). The societal impression is such that the failure of a child is considered the fault of its mother; conversely, the success of the child is linked to the father's efforts. This results in the women striving hard to contribute, or even bear the full burden of childcare. The enormity of such a burden can adversely affect their health information-seeking behaviour or make the thoughts of BSE elude them. Mugivhi, Maree and Wright (2011) and Tieng'O et al. (2011) investigated the knowledge of breast cancer in a similar setting in Botswana. The results indicated low levels of knowledge of breast cancer examinations and recommended the need for increased breast cancer education for women, as well as the need for civic education to boost general knowledge of health, diseases and wellness. Their studies found that breast care can reduce confusion for women and encourage empowerment in breast health promotion.

One other factor responsible for the low knowledge level may be the fact that the study participants only visited health centres for antenatal and postnatal care, for minor ailments, or to be delivered of a baby, and they don't visit urban hospitals as they cannot afford health care costs in those areas. This is supported by Adebamowo and Adekunle (2006), who found that rural Nigerian populations are usually neglected while setting prices for health care services, and are not empowered in health promotion issues.

The few women who claimed to have received information on breast cancer and BSE from health workers showed very little understanding of these issues; hence, the information received was either insufficient, or they were careless or carefree about their health. However,

the findings also showed that the information at the clinic only concerned daily routine services, such as those of the antenatal and infant welfare clinics. There were no specific days for women's health issues. Data from the FGD sessions confirmed the low level of knowledge of BSE among the participants, thus indicating BSE as a topical issue of public and reproductive health concerns in Nigeria (Adebamowo & Adekunle, 2006).

The participants of the FGD reflection sessions reported that there had been incidences of breast cancer in the community. This was further corroborated by records from the health centre, where cases of breast lumps had been reported in the last few years, with 10 cases where breast lumps had been removed surgically.

In conclusion, the various responses from the questionnaire and the FGD sessions revealed a relatively low level of knowledge on the concept of BSE in preventing breast cancer. Most of the respondents had never heard of BSE, while some who had limited knowledge of it. A few of them confessed that family members had died from breast cancer, being ignorant of the nature of their illness. Some studies, supporting this finding, state that there are often different levels of information acquisition, knowledge and understanding of health concepts, such as breast cancer and its prevention methods, even among a given Nigerian population of a homogenous nature (Adebamowo et al., 2003; Adebamowo & Adekunle, 2006).

For all of these reasons, it was pertinent that an educational programme be developed for the women in this study population, as a platform for teaching and learning on breast cancer matters, as well as related health issues. The programme also served as a tool to remind those who had forgotten what they had learnt during the demonstrations of BSE. As stated earlier, the benefits of BSE include a long, healthful life and a reduction in breast cancer incidence and rates. Moreover, the training of women on any issue amounts to training a family and the larger society

(Fields, 2004).

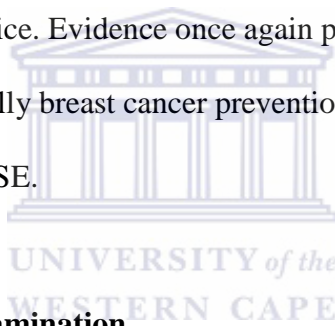
5.1.3 Source of Information

The study revealed that health workers were the major source of information on breast cancer among the women. The strong interaction between the women and the health workers during the FGD indicated their ability to make use of nurses for support services in the area of health. The FGD reflection phase showed initiation of communication between the health workers and the women. This boosted dissemination of health information from the workers, as good rapport had been established. These findings were in line with that of Adebamowo and Ajayi (2006), who identified electronic media and information from hospitals as major sources of information on breast cancer among women in Ibadan. However, the findings were at variance with that of Salaudeen, Akanda and Musa (2009), who identified the television as the major source of information on health matters among women in selected Nigerian cities. In defending this, Olowokere et al. (2012) argued that urban populations have social amenities such as televisions and other electronic media, unlike in rural areas, where such amenities are non-existent; hence, the position of health workers as the major source of information is important.

Apart from other health personnel, community health nurses are rightly placed to encourage and teach preventive behaviour, especially to women in the rural setting. Community health nurses often combine different approaches for encouraging women to develop self-confidence and comply with health screening matters regularly and correctly, through education, demonstration, reinforcement and advocacy. The current findings were also in agreement with those of Olowokere, Onibokun and Irinoye (2012), which showed that health care providers are the major source of information on breast issues. The initiated communication between the

women and the health workers was one of the impacts of the programme, as it was in support of the study, as stated in the responses of the women in the presentation of findings in Chapter four.

Concerning the Health Belief Model items, the findings of the study indicated low levels of knowledge of BSE and the risk for breast cancer. This was not in agreement with the 55.4 % findings of Oluwatosin and Oladepo (2006). The implication was that susceptibility or vulnerability to the risk factors of breast cancer among the respondents was very high (86.7%), perhaps due to their low level of knowledge of BSE. Fear of falling prey to the disease was also high (59.1%). This also indicates that information and an awareness programme on breast cancer among the respondents would be highly beneficial in reducing cancer mortality among them, through the influence of BSE practice. Evidence once again pointed to an urgent need to introduce health education, especially breast cancer prevention/treatment education in the study area, including demonstration of BSE.



5.2 Practice of Breast Self-examination

The second objective focused on the practice of BSE among the women, and the third theme that emerged from the FGD reflections was ‘practice and appeal for intervention’. The findings from the questionnaire data showed that more than half of the respondents had not practised BSE before the survey, due to a lack of knowledge of the skills involved. Similarly, it was observed that two-thirds of the FGD participants had never practised BSE for early detection of breast cancer; neither did they know by whom the procedure should be done or the frequency with which the procedure should be done. They also lacked the skills for the step-by-step process of BSE which was reflected in the 15 items on the practice of BSE. The few women who did claim to have practised BSE for the purpose of detecting “*kokoomu*” (breast lumps) did so incorrectly

when asked to demonstrate, which indicated that they were either not given the correct practical demonstration of BSE, or they did not learn the technique correctly. This result corroborated with those of Khokher et al. (2012), Ravichandran et al. (2011), and Rasu et al. (2011), that practical demonstration plays a significant role in the uptake of preventive practices and services such as the practice of BSE among women.

It is noteworthy that Nwankwo et al. (2009), while studying a local location in Nigeria, found a link between the level of knowledge of breast and cervical cancer screening activities and the practice thereof. The result of the current study also showed that a lack of knowledge concerning BSE was responsible for the non-practice thereof. Their result also indicated that increased female education and free mass screening are essential to any successful cancer screening programme and practice in Nigeria.

Nearly all of the participants were of the view that health information on BSE practice should be made available to them permanently. They indicated that this indispensable health education/information should include the step-by-step process of practising BSE. Their request informed the design of a pamphlet on the step-by-step procedure of BSE in pictorial format, as part of the research outputs. Copies of the pamphlets were distributed to the women without charge, and the remaining pamphlets were kept with the health workers.

Unsurprisingly, the participants perceived that every woman is susceptible to breast cancer. This was reflected in the findings, where 86.7% of participants stated that they were susceptible to breast cancer. The little exposure that the women had to this issue as a result of this study made them understand the seriousness of breast cancer and its risk factors. They stated that the benefits of early detection of breast cancer through BSE had been unknown to them before the survey. This led to their interest in advocating an empowerment programme on BSE.

In a patriarchal society the role of the men cannot be overemphasised. The participants indicated that their respective significant others, particularly their spouses, needed to lend their support so that they may attend educational training on health-related issues. In Southwest Nigeria, as in many other places, there is male dominance in all spheres of the society, especially with regard to decision-making, whether on health-seeking or health-promoting behaviour, or even simple issues such as what to eat for dinner (Olopade, 2005; Oluwatosin & Oladepo, 2006). The culture does not permit the woman to make decisions concerning her health, including reproductive health, or the health of their children, on her own. Decisions must be made with the support and consent of their spouses. However, armed with the information on breast cancer, especially on the susceptibility, and given the necessary demonstration of BSE, the participants were ready and willing to continue with BSE as a preventive measure of breast cancer, whether or not they received the necessary support from home, since it was a matter of their own well-being. This result confirmed that of Lu (1995), who stated that influencing factors of women's use of early detection techniques (such as culture, beliefs, husband's involvement, and the self-care relationship between health and bodily functions) can be altered by exposure to the right education and empowerment programmes.

As indicated by the findings reported previously, during the discussion on the socio-demographic data of the population, the low level of education of the rural women might have contributed to their low level of knowledge of breast cancer and the practice of BSE. This highlighted the importance of girl-child education in the women's empowerment process. It is easy for a well-educated woman to make informed decisions when faced with critical decision-making on issues such as health. Exposure to an appreciable level of formal education is a catalyst to reception, comprehension and analysis of health-related information, written or

otherwise. This result was congruent with findings from the FGD data analysis. The developed programme included the dissemination of health information on the practice of BSE through video presentations, demonstrations on the breast model, and the distribution of pamphlets on the step-by-step process of BSE to women.

Data on susceptibility to breast cancer showed, in spite of the low level of BSE practice, that participants had a high level of perception of their susceptibility to breast cancer (86.7%) and that they perceived the seriousness of the disease (59.1%). Balogun and Owoaje (2005) stressed that people's awareness of the benefits of an intervention programme or technique (such as BSE) is embedded in knowing the risk of contracting a disease like breast cancer. This supposition was invariably shown in the results of the question on the barriers to BSE practice, which indicated that nearly 77% of respondents perceived barriers to BSE practice. This justified the use of Health Belief Model items on BSE practice, as demonstrated by Balogun and Owoaje (2005).

The participants' responses indicated that they did not practise BSE due to a lack of know-how. In fact, most of them had not examined their breasts for detection of lump/cancer for periods longer than a month. However, the FGD reflection session data showed that most of them were eager to learn about the practice of BSE. They requested a practical demonstration of BSE, as well as a health education programme on breast cancer prevention. Nearly all of the participants were of the view that dissemination of health information regarding BSE should not be limited to print, but should be extended to music and expressed in songs, as is done in antenatal, postnatal and infant welfare clinics. They also indicated that pamphlets on BSE should contain the step-by-step procedure of BSE and should serve as reminder of when and how to do BSE, as well as a reminder of the need for the practice. These findings led to the development of

a pamphlet on how and when to perform BSE in the local language (Yoruba), which was well received by the respondents, and the composition of a song, which served as mnemonic.

5.3 Barriers to Breast Self-Examination

The third objective of this study focused on identification of barriers to and challenges in BSE and practice among the respondents. The findings were previously described along with the fourth theme - misconceptions and fear. Misconceptions and fear were the major barriers to BSE practice among the women. Certain misconceptions and 'myths' on BSE led to unsubstantiated fears and worries. For example, the women perceived that the practice of BSE would lead to a definite discovery of breast lumps and/or breast cancer; or that talking about breast cancer (*jejereomu*) would precipitate occurrence of the disease in the discussants. This result confirmed the argument of Chee, Rashidah, Shamsuddin and Intan (2006), who found fear of developing a disease as barrier to practising or even discussing gynaecological and/or cancer self-examination procedures among some Asian groups. Okobia, Bunker, Okonofua and Osime (2006) reported in their study of breast cancer that 21.4% of Nigerian women believed that breast cancer is a spiritual affliction.

The findings on misconceptions about breast cancer as the barrier have been described by Dymond, Roche and Whelan (2014), as an offshoot of blind cultural ethics, or an act of self-denial. The researchers arrived at a similar result after participants expressed their belief that self-examining their breasts could lead to development of lump. Umeh and Rogen-Gibson (2001) also reported the barriers to breast screening as including difficulty with starting a new behaviour or developing a new habit, and fear of not being able to perform a desired behaviour correctly and without embarrassment.

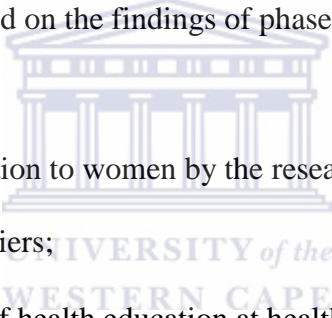
Omolase (2008), Awodele, Adeyomoye and Oreagba (2009) and Rasu et al. (2011) reported several barriers to the practice of BSE, including socio-demographic variables, attitude, lack of awareness and lack of knowledge of the step-by-step BSE process. Chee, Rashidah, Shamsuddin and Intan (2006) reported that fear of detecting breast cancer often renders women unwilling to practise BSE. For these reasons, lack of knowledge was one major challenge that was addressed in the development of the programme.

Umeh and Rogen-Gibson (2001) and Balogun and Owoaje (2005) opined that women generally view the breast as a symbol of womanhood, with a unique structure that contributes to the identity of belonging to the female gender. Thus, to these women BSE seems to connote the questioning of that unique physical attribute, especially when there is the expectation of detecting a lump. The loss of a breast therefore signifies to society the status of diminished femininity, and that the woman in question is actually 'less of a woman'. As a result, women would naturally prefer not to practise BSE or even think of detecting a lump or cancer. This is in line with the Health Belief Model indices.

Furthermore, in some societies examining one's own breasts is viewed as fondling one's own breasts, which is considered strange and/or 'funny' and embarrassing (Chee et al., 2006). This remains an issue of concern to researchers the world over. This was taken into consideration in the current research, while planning for the practical demonstration on the breast model. Effort was made to disabuse the minds of participants and assure them that the breast is part of their body, that BSE was essentially a self-health promoting and illness-prevention tool, and that this health promoting practice should not be mistaken for fondling one's own body. Their worries were also addressed during the health education sessions, where they were informed that the procedure takes less than 10 minutes and that it should be done in the privacy of their homes.

The health views advocated by the procedure were relatively new to the participants and there was an initial low level of confidence. But the health talk and teaching led to an improved confidence rating, as they became highly motivated to practise BSE after using the breast model and viewing the video presentation. The resultant high level of motivation may also be connected to the training and demonstration.

Hurdle (2007) indicated support for the use of gender-focused educational methods with emphasis on empowerment to increase the cancer screening practices of older women. This is in line with the suggestion of the respondents that an educational programme should be developed to provide knowledge and to promote the practice of BSE. Consequently, the empowerment component (FGD suggestions) based on the findings of phases one and two involved the following:

- 
- Provision of health information to women by the researcher, on BSE understanding, practice and addressing barriers;
 - Health workers' provision of health education at health centres, market days, religious gatherings and women's meetings;
 - Practical demonstrations of the BSE procedure on a breast model, physically and via the viewing of a video;
 - Peer demonstration and information dissemination among women;
 - Production of customised pamphlets (in Yoruba), showing the step-by-step process of BSE.
 - Selection of a day in the week when women's health issues will be addressed at the clinic, with emphasis on breast cancer screening;

- Production of a radio jingle, sponsored by an NGO, on breast cancer awareness and the importance of BSE;
- Composition of a mnemonic (in song) on BSE, as is done for other clinics; and
- Respondents' practical demonstration of the step-by-step BSE process.

5.4 Considerations of the Empowerment Component

The findings established that the lack of knowledge and practice of and the barriers to BSE negatively impacted the respondents' health behaviour regarding breast cancer detection, diagnosis and treatment. The empowerment programme was developed based on the recommendations for action in phase three. The plan consisted of:

- Health talks given to the participants on the understanding and practise of BSE, provided by the researcher, who also explained and allayed their misconceptions and fears;
- Health education to be given to women, by the researcher and health workers in the health centres and the market, religious centres and at both formal and informal meetings of the community as a follow-up;
- Physical demonstrations, demonstrations on a model, training and the viewing of a video on the BSE procedure;
- Women/peer demonstrations and counselling to each other after the programme's implementation;
- Provision of pamphlets and posters to serve as guide and reminder to the women on BSE practice;

- Collaborating with health workers to provide information and health education on BSE to the women during antenatal and infant welfare days and a day selected for women's health issues;
- An interactive radio programme and jingles on BSE practice, as was created for other health issues such as prevention of HIV/AIDS and other diseases;
- Composing and teaching a BSE song to act as mnemonic (oral mental reminder tool); and
- Physical demonstration by the women after the programme's implementation.

The following song was composed to act as mnemonic:

Cancer of the breast (x2)

A big tree that shakes the forest vigorously

Cancer of the breast (x2)

Check your breast yourself once a month (x2)

Check your breast with the clinician once in a year (x2)

Cancer of the breast (x2)

The empowerment programme as a major output of the study was developed following Kieffer's (1984) empowerment process, the stages of which are era of entry, advancement, incorporation and commitment. The programme development is discussed in Chapter six.

5.5 Impact of Implementation of the Empowerment Programme on BSE

The impact of the empowerment programme that was developed was measured after implementation by observing the women doing physical BSE demonstrations. Seventy five women were observed, 64 (85.3 %) women of whom were able to demonstrate the proper and sequential procedure of BSE using the checklist as a guide, while 11 (14.7%) of the women performed poorly by not carrying out the examination in sequence. Those who did not perform the BSE correctly had the procedure demonstrated to them again.

5.5.1 Initiation of Communication

The women were able to relate with each other better than before commencement of the study. When the researcher arrived to meet group members for the FGD sessions, the women were already interacting and having a good rapport with the health workers, long before the FGD venue was ready (Olowokere et al., 2012). The members of the groups had the opportunity to get to know one another better from the FGD sessions. The mutual exchange of ideas led to freedom in expressing opinions about BSE knowledge, practice and challenges. This eventually led to trust-building among the members. The participants shared opinions and challenges in a friendly atmosphere. The forum thus improved their communication and interaction capacities individually and collectively, as members and stakeholders of the community.

The positive interaction was one aspect of the study that will guarantee sustenance of the outcome of the study - the health workers reminding the women about BSE practice at the women's health clinic. The new improved interaction between the health workers and the women in the community was observed during the health visits at follow-up.

5.5.2 Health Visits

Health visits by the researcher to the clinic showed attendance increase with correct performance of BSE. The increase in performance level was a positive impact of the programme (Olowokere et al., 2012). The selected day for women's health issues also improved health behaviour, and acceptance of BSE by the women was indicated by the increased attendance. The correct physical step-by-step performance of BSE by the women who attended the health clinic ranged from 80% to 94.7%.



CHAPTER SIX

A DESCRIPTION OF THE PROGRAMME

6.0 Introduction

The empowerment programme was developed using Kieffer's (1984) empowerment process, which is similar to the PAR adopted for the study, for empowering the Iddo Local Government community women on BSE practice. As stated earlier, suggestions and recommendations from the FGD sessions formed the components of the programme that was developed. The findings from both the survey analysis and FGD reflection responses showed low levels of knowledge and practice and a high level of barriers to BSE among the participants. The three themes that emerged from the FGD reflection and the stages of change formed the components of the empowerment programme on prevention of breast cancer through the promotion of BSE in the Iddo Local Government community of Oyo State, Nigeria.

The designed programme provides answers to the fourth objective of this study, which was the development of a BSE programme for empowering women towards the prevention of breast cancer. This forms the key output of the study.

6.1 Programme Development

The programme was developed based on the findings from the phases of the Participatory Action Research, the themes that emerged from reflection in the FGD sessions, recommendations from Phase three and the stages of change. A critical review of the format and contents of the empowerment process of Kieffer (1984) showed four areas of empowerment programme

developments which are: entry, advancement, incorporation and commitment. The stages of change which are contemplative, preparing, action and maintaining was also incorporated (Prochaska & DiClemente, 1984).

These aspects form the direction of the programme that was developed, using the themes that emerged.

6.2 Overview of Literature

The empowerment process by Kieffer (1984) states that empowerment is a process by which an individual moves from absolute ignorance of a need or ability to change the way of doing things, to a level of asking questions where people or groups of people identify their deficiencies, to bring about change. Empowerment is about people being able to maximise the opportunities available to them, despite their challenges. Empowerment cannot be enforced by outsiders, but by appropriate internal involvement of the beneficiary through their willingness to go through the process of change and the participatory research approach.

The stages are discussed as they apply to development of the empowerment programme on BSE.

6.2.1 Stage One: Era of Entry

The era of entry is the stage where the participants explored the structure to reach a point of consciousness of their powerlessness which is also the contemplative stage of change. This was applicable to the participants in this study, who showed consciousness and powerlessness in terms of information on, knowledge and practice of and barriers to BSE, in spite of the

occurrences of breast lumps in their community. Findings in phases one and two of the study confirmed inadequacies in the understanding and practice of BSE and revealed barriers to its practice.

6.2.2 Stage Two: Advancement

The advancement stage is the stage where participants began to experience better understanding in line with the preparing stage of change where participants realised how serious lack of knowledge of BSE is and become inquisitive in their bid to have knowledge of BSE for breast cancer prevention.

6.2.3 Stage Three: Incorporation

The era of incorporation comprises a period of appeal for intervention by participants which is the action stage of the change cycle. In the current study this was achieved during FGD reflective sessions, where an appeal was made by the participants for empowerment through the provision of health information and skill acquisition as the way forward. During this stage women were given information on BSE practice through teaching, demonstrations on models, pamphlets and songs. The women wanted more information in this stage and made recommendations on how they can be empowered, which formed the components of the programme that was developed.

6.2.4 Stage Four: Commitment

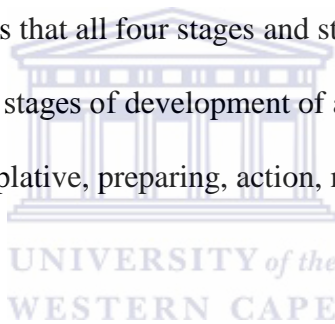
Finally, the era of commitment ; also the maintain stage of the change cycle where the women became committed to their intention of integrating the programme that was developed, and using the information and skills acquired during the third stage of the study into practice in their daily

lives. This was the fourth stage of Participatory Action Research, where the women were self-empowered with the information obtained from the incorporation of the above and acted upon it; the impact was then evaluated.

6.3 Stages of Programme Development

The structure of the programme shows the stages and actions being implemented in each stage

The programme development had four stages, as per the themes which emerged, which were awareness of identified health issues, attitudinal and behaviour change, knowledge and the improvement of information, and self-empowering for sustenance. The effective use of BSE within the local community requires that all four stages and stages of change be involved; the stages follow Kieffer's (1984) four stages of development of an empowerment programme. The stages of change which are contemplative, preparing, action, maintaining and advocacy, and are discussed below.



6.3.1 Awareness of Identified Health Issues

This stage was similar to Kieffer's era of entry, in which participants reached a point of powerlessness regarding their health issues and the contemplative stage of change. Health issues are of various dimensions among rural groups. For example, in the studied community the participants identified their lack of understanding of BSE and of how knowledge and practice of BSE can prevent breast cancer. There are also other health issues in the community, such as communicable diseases, smoking, and worm infestation. Other health issues were ascribed by participants to non-availability of essential amenities such as pipe-borne water, electricity, accessible roads and accessible health care facilities. Data analysis during the survey showed low

levels of knowledge and practice of BSE and barriers to its practice, and the participants consequently requested that health information be provided by the researcher.

Dissemination of health information is still the best method of identifying health issues that require attention in any community. The knowledge that BSE is a measure of early detection of breast cancer is better disseminated through the provision of health information. Health campaigns through group communication also play a major role in sensitising the community on health issues. Such group communication media should be carried out in markets and religious meetings. BSE communicating messages such as radio jingles and programming can be used during empowerment campaigns, and efficient transport facilities can be provided to ensure accessibility to health centres.

Value clarification on how women view their bodies and health is another factor that influences awareness of health issues. In recognition of this, participants of the study were given information on reproductive and sexual health to boost their self-esteem.

The outcome enhanced the awareness component of BSE knowledge and practice and facilitated progression to the second stage.

6.3.2 Knowledge and Improvement of Information

This is the advancement stage of Kieffer's empowerment process and the preparing stage of the change cycle, during which the participants experienced greater understanding of and became keenly inquisitive about it. Also, the advancement stage aligns with phase two of the Participatory Action Research process. In the FGD reflection participants expressed their concerns regarding their poor knowledge and practice of BSE and its barriers, as identified during the first phase. This informed the health training programme, which included

demonstration sessions and a video shown to the women by the researcher. The demonstration was performed on both a breast model and the participants. Opportunity for questions and answers was given to participants.

The BSE mobilisation song was also taught to the women by the researcher. The song helped the women during peer information dissemination. This was important as peers have enormous influence on one another. Thus it was anticipated that, if peer influence was positively used in the promotion of BSE practice in the community, the required behavioural change would be achieved with more ease. There is usually mutual respect and a strong bond among women, such that productive interactions are encouraged. Peer interaction was initiated during the FGD reflection sessions, and facilitated by the researcher. Health information on BSE was provided to the participants for the purpose of replication in religious houses and marketplaces. Participants were encouraged to share the information with other women on a regular basis.

BSE communicating messages, such as pamphlets (Annexure H) with information that motivates and illustrates the step-by-step procedure for BSE, were also produced and distributed. The participants acknowledged that this tool would keep reminding them of the importance and procedure of BSE.

Furthermore the mass media, specifically the radio, has been argued to be a potential means of reaching Nigerian women with health information (Olopade, 2005). One reason for this is that radios that are powered by batteries are usually used in this community, due to an inadequate supply of electricity. Radios are inexpensive to procure and maintain. Also, several mobile phones - owned by even rural women today - come with the capacity to receive radio signals, usually FM. To this end the researcher is to collaborate with the State radio station and some NGOs to produce and air a Yoruba radio programme and jingles on BSE practice. The

mnemonic song composed during the fieldwork will also be used as the radio programme's theme song for promoting BSE practice.

The women in whom breast lumps were detected during the BSE programme were supported emotionally and psychologically. The necessary information was provided to allay their misconceptions. Those who were diagnosed with breast cancer had the lumps removed through surgery at the health centre, at no cost, and the specimens were sent for histology. Out of gratitude for the intervention and especially the free surgery, the women promised to always counsel others on the importance of BSE and to encourage them to report any growth at the health centre for clinical examination.

6.3.3 Attitudinal and Behavioural Change

This is the incorporation stage of the empowerment process of Kieffer (1984) and the action stage of the change cycle. This stage promotes the women's interest in intervention and readiness for change by the empowerment programme's development through health information and skills acquisition. There were attitudinal and behavioural changes observed among the women based on the skills acquired in the training, the demonstrations and the video and, most importantly, in their improved skill in BSE during the implementation phase. The participants expressed delight and showed appreciation for the empowerment to practise BSE themselves. The hands-on exercises made them better prepared for practice and counselling of other women in the community, religious organisations, and markets, and even during women's meetings. Counselling sessions on BSE practice as breast cancer screening were planned to be held monthly. The researcher is to participate actively in the organisation and the exercise.

6.3.4 Self-empowering for Sustenance

This aims at ensuring the sustainability of the programme and maintaining stage of change cycle where the participants consolidate the changes in their behaviour to maintain the new change behaviour. The researcher visited the health centre for four weeks to monitor the weekly attendance at the women's health day, which had been newly commenced. The attendance increased weekly, as recorded in the hospital records. Health workers were taught how to incorporate health visits into their schedule as a follow-up measure on BSE. Emphasising the need for individual commitment among the women, the researcher encouraged the participants to put the information reminder tools (pamphlet and song) to judicious use, and to report to the clinic whenever they feel anything strange in the breast.

One of the main objectives of this stage was to enshrine compliance with monthly BSE practice. After developing the empowerment programme, a comprehensive copy of the programme package was handed over to the local government health centre for continuation. The health workers were also encouraged to incorporate breast screening into their mainstream clinic activities during market, religious and other community meetings, using the women who participated in FGD sessions in the community.

It is notable that BSE practice is better promoted in public by the use of half-body mirrors; the women were encouraged to obtain such mirrors, which are quite inexpensive, to enhance visual examination.

Another output of this stage was advocacy via the mass media which represent the last stage of change, however there was no termination because its an on-going process. A mnemonic song to be used as a radio jingle was produced and made ready for use as a public enlightenment tool. There was also the design of a full interactive weekly Yoruba radio programme that focuses

on women's health issues, including BSE practice. Radio jingles and airing are usually capital-intensive. The implication of these advocacy media is to collaborate with government agencies, NGOs and philanthropic organisations, especially regarding funding, replication of efforts and sustainability including provision of screening facilities and free health care for breast cancer patients. Furthermore, community health workers were encouraged to include home visits in their weekly schedules, and this should be sustained during World Breast Cancer Week in October. The researcher visited the villages again during the October Breast Cancer Month to further remind them of the importance of monthly practice of BSE. See Table 4.3 for the programme that was developed.

6.4 Chapter Summary

The programme that was developed (Table 4.13), if sustained, will contribute to the health improvement of women in the Iddo Local Government community. It can be replicated, expanded/modified and used in other similar locations or areas within and outside Oyo State. Evaluation for future refinement of the empowerment programme will be a postdoctoral study. The programme serves a dual purpose: it promotes BSE practice through women's involvement, and solves possible health-related problems among women of an underserved/under-resourced community. With regard to the latter, the programme, being a Participatory Action Research, ensured full participation by the women going through the stages of change. In this way, acceptability was achieved and barriers addressed due to the method of women's participation in the whole process.

CHAPTER SEVEN

SUMMARY, CONCLUSION AND RECOMMENDATIONS

7.0 Introduction

The report of this study has been presented in seven chapters. This last chapter focuses on the presentation summary (chapter distribution), research process, findings and outcomes, implications of research findings, limitations of the study, the contribution of the study to knowledge, recommendations and conclusions. It is noteworthy that the overall purpose of the research was to develop an empowerment programme on BSE aimed at the prevention of breast cancer.



7.1 Chapter Distribution

The research process was set out in chapters, sequentially. Chapter one gave an overall introduction, stating the background, problem statement, and the significance of the study, as well as its objectives - the reduction of maternal mortality by the prevention of breast cancer through screening programmes such as BSE, among others. The researcher carried out a comprehensive review of literature to evaluate previous studies on BSE, the theoretical model of Kieffer's empowerment process and that of the CHBSM (Champion, 1987), all of which were presented in Chapter two. The third chapter discussed the research paradigm, philosophy of health education and information, the choice of research design, which was Participatory Action Research, divided into four phases (observe, reflect, plan and act), in which quantitative and qualitative data were gathered using a questionnaire and FGD reflection sessions as instruments for phases one and two. A working session was discussed for phase three and the evaluation of

the programme was discussed in phase four. The chapter also discussed the population and sample, the participants, data collection methods and data analysis for each phase.

The fourth chapter presented the results of data gathered both through the use of a questionnaire in phase one and the reflection of findings from phase one in FGD, and analysed this thematically. During the analysis three themes emerged: knowledge/awareness of BSE, practice and appeal for intervention, and information on the misconceptions and fear. These themes were also reviewed in line with relevant literature on the four phases of Participatory Action Research. Phases three and four presented the programme development and the implementation of the programme by observation and the use of a checklist.

Chapter five presented the discussion of findings for both the survey (quantitative) data and the FGD reflection (qualitative) data and implementation of the programme.

Chapter six presented the empowerment programme development process, based on the recommendations and emerged themes using Kieffer's (1984) empowerment programme processes and the stages of change (Prochaska & DiClemente, 1984). The last chapter provides the summary of work, recommendations and conclusions.

7.2 Summary of the Research Process

The purpose of the study was to develop an empowerment programme that would sustain practise of BSE among rural women of the Iddo LGA of Oyo State. The research design was Participatory Action Research, which was adopted after a review of literature to link the appropriate methodology to the achievement of the objectives. Participatory Action Research was used to address the core of each objective of the study and the development of a programme,

based on full participation of participants. The four phases of the Participatory Action Research process were observe, reflect, plan and act. Vio-Grossi (1981) and McIntyre (2008) stated that, as a research approach, Participatory Action Research explores the processes by which participants engage in collaborative action-based projects that reflect their knowledge and mobilise their desires. It involves the promotion of self- and critical awareness, leading to individual, collective, and/or social change. It emphasises a co-learning process where researchers and participants plan, implement, and establish a process for disseminating research information.

The first step of the study explored the understanding of the women in the Iddo LGA on the understanding and practice of BSE and the barriers to its practice, aimed at the prevention of breast cancer. This was tied to the first phase of Participatory Action Research, the 'observe' phase. To gather data in phase one a quantitative method of data collection was used: a structured questionnaire was used to collect the data. The respondents comprised 345 women between the ages of 20 and 60 years. The data were analysed and results presented in percentages and frequencies.

The second step, in the second phase of the Participatory Action Research process, reflected on the findings of phase one, on the findings of research questions one, two and three and the way forward. The participants reflected on the understanding and the practice of BSE and barriers to the practice among rural women of the Iddo local government community. This step involved the formation of FGD sessions for reflection with health workers as facilitators of the sessions that were fluent in the Yoruba language and acted as research assistants. The qualitative data from the FGD were analysed thematically. The in-depth reflection ensured full

participation of the women with regard to the knowledge and practice of BSE, as well as barriers to practice. The discussions further revealed and confirmed the findings of phase one.

The third step involved the planning phase, the working group session with selected participants to examine the suggestions in phase two, the use of the suggestions to make recommendations for the programme's development, and the validation of the programme by the expert reviewers. Research question four on the development of the BSE programme to empower the women towards the prevention of breast cancer in the Iddo Local Government community was answered in phase three. The fourth step was implementation of the programme that had been developed according to the fourth Participatory Action Research phase of 'act'. All the components of the programme were implemented, except for the funding of the radio jingle by an Non-Governmental Organization or philanthropist. To monitor the impact of the empowerment programme on the women an observation session was conducted in which the participants were observed during physical demonstration of BSE on themselves, using the checklist (see Annexure J) developed by the researcher for the BSE procedure. Health visits made by the researcher to the women's health clinic for four weeks showed weekly increases in attendance by the women. Physical demonstrations of BSE by the women, which were also observed and evaluated using the observation checklist, showed increased mastery of the BSE procedure among the women.

7.3 Summary of Findings or Outcomes

The findings of this study are similar to those of others (WHO, 2002; Awodele et al., 2009): BSE practice can be used as screening tool for reducing breast cancer incidence. The analysed data are presented in Chapter four, while discussions on the findings of the analysed data are in

Chapter five. The suggestions that emerged from the FGD reflection sessions were used for development of the empowerment programme. This section used the research objectives to draw the conclusions for the study.

Below are the research objectives:

1. To explore the understanding of breast cancer prevention through BSE among rural women of the Iddo Local Government community;
2. To investigate the practice of BSE among women in the Iddo Local Government community;
3. To identify the barriers/challenges to BSE practice among women in the Iddo Local Government community.
4. To develop a BSE programme aimed at empowering women towards the prevention of breast cancer.



The survey and FGD achieved objectives one to three, while the findings were used to achieve objective four, which was development of the empowerment programme for women.

7.3.1 Objectives One, Two and Three

Objectives one, two and three explored the women's understanding of BSE, and investigated its practice and the barriers to its practice. In the first objective, it was observed in phase one of the Participatory Action Research process that the participants' level of knowledge and practice of BSE were low. This was attributed to the lack of appropriate health information on the practice, lack of skills, fear of talking about breast cancer, embarrassment, and lack of privacy, among

other factors. The study findings indicated the need for an empowerment programme that would ensure dissemination of the appropriate information and support for BSE practice to promote breast cancer prevention. The second phase of the Participatory Action Research process was used to further strengthen the result of the survey findings. This information was used in phase two for reflections during FGD sessions on the findings of phase one. Data from the FGD reflection sessions also affirmed the findings of phase one – that there was a lack of knowledge and practice of BSE, as well as the presence of barriers to the practice that had a negative impact on the participants' practise of BSE. The FGD reflective sessions also resulted in the emergence of three themes: awareness /knowledge of BSE, practice and appeal for intervention (empowerment) and facts about their misconceptions and fear. Consequently the participants made some suggestions, as indicated in Table 4.11.

These suggestions from the FGD reflective sessions led to the formation of a working group consisting of 10 women selected from the previous FGD sessions, five health workers and the two expert reviewers, for designing an action plan in phase three. There was further reinforcement on the need for a programme that will inform and empower women, based on the suggestions. In designing the action plan for the empowerment programme, the following recommendations were agreed upon by the participants:

- Health talks given to the participants on the understanding and practise of BSE, provided by the researcher, who also explained and allayed their misconceptions and fears.
- Health education to be given to women, by the researcher and health workers in the health centres and the market, religious centres and at both formal and informal meetings of the community as a follow-up.

- Physical demonstrations, demonstrations on a model, training and the viewing of video on the BSE procedure.
- Women/peer demonstrations and counselling to each other after the programme's implementation.
- Provision of pamphlets and posters to serve as guide and reminder to the women on BSE practice.
- Collaborating with health workers to provide information and health education on BSE to the women during antenatal and infant welfare days and a day selected for women's health issues.
- An interactive radio programme and jingles on BSE practice, as was created for other health issues such as prevention of HIV/AIDS and other diseases.
- Composing and teaching a BSE song to act as mnemonic (oral mental reminder tool).
- Physical demonstration by the women after the programme's implementation.

7.3.2 Objective Four

The fourth objective was achieved through the development of an empowerment programme, using Kieffer's (1984) four stages of the empowerment process (era of entry, advancement, incorporation and commitment), as discussed in Chapter six under the heading 'Programme Development'. These stages were in line with the research design (Participatory Action Research) discussed in Chapter three. The programme was developed in four stages, based on the following themes: awareness on identified health issues, attitudinal and behavioural change, knowledge and improvement of information, and self-empowerment for the sustained use of BSE in the community. The programme was endorsed by the working group participants by

consensus as representing their suggestions and recommendations during the FGD reflective sessions, after further clarifications. The research process and the programme were validated as feasible by the expert reviewers.

The main purpose of the study - the development of an empowerment programme for BSE to prevent breast cancer - was achieved. The motivation for the study itself was born out of the researcher's passion to prevent the development of breast cancer and to reduce the mortality rate thereof, by implementation of a simple procedure and provision of information on BSE.

Each stage of the programme is shown under a heading, followed by activities to be performed with full participation of the women, the researcher and health workers (see Table 4.13) for the developed programme.

7.4 Implications of the Research Findings

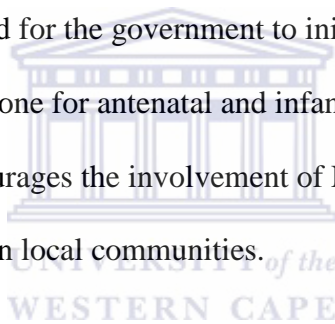
The extent of participation, comprehensiveness and depth of this study present a number of implications for health education. The first implication of the findings is that women, irrespective of residence, level of education and socio-economic status, should be informed of breast screening practices, including BSE, which is inexpensive, accessible, easy and fast, and can be done without the intervention of another person (Forbes et al., 2011). Secondly, the provision of information and the demonstrations to women brought about attitudinal change with regard to regular BSE practice. A positive change of attitude that promoted self-empowerment and sustenance of healthy behaviour was advocated by the empowerment programme.

Sustainability means that BSE will continue to be practised among the women for a very long time. Thirdly, the findings revealed a need that regular health visits be paid to women in the study area, to encourage the health behaviour taught and learned. The fourth implication is that

health workers must always be informed and pass on information about the importance of breast cancer screening behaviours, to promote prevention of the disease. To achieve this, nurses should attend workshops, conferences and seminars to update their knowledge of breast cancer screening practices.

The fifth implication is that it is important that health and home visits are reinforced in the curriculum of the community health workers and midwives, because of their important roles within the health care system at the local government health centres.

Finally, the sixth implication is that it is noteworthy that policy implementation by the government should involve a sustainability component that addresses people in their communities. Hence, there is a need for the government to initiate a day each week for women's health services in all clinics, as is done for antenatal and infant welfare clinics. There should also be a sponsorship scheme that encourages the involvement of Non-Governmental Organizations in the provision of health services in local communities.



7.5 Limitations of the Study

The limitations that were identified during the study, are discussed below. The study, although comprehensive and detailed, was limited in its generalisation. However, the aim of a qualitative study is not to generalise. Parahoo (1997), Patton (2002) and Brink et al. (2011) states that qualitative studies usually identify inability to generalise as a limitation. The study was conducted in one LGA of the state. The study needs to be repeated in other settings, to build stronger evidence on how an empowerment programme for women to prevent breast cancer can work among the women in a rural community, using the Participatory Action Research approach. The study had only female participants, the majority being Christians; hence, it might be

unsuitable to apply the findings to populations with different social characteristics. Also, intrinsic in qualitative research is the issue of interpretation of data. It is usually predisposed by the background and experiences of the researchers and others caught up in it. Different interpreters, with different perspectives, might come up with different conclusions.

Finally, familiarity of the researcher with the topic may be seen as a limitation. This is because it may influence the development of meanings to attach to collected data and can also limit thinking, especially with regard to making incorrect assumptions. However, familiarity is often described as an asset, rather than as a burden.

7.6 Contribution of the Study to Knowledge and Future Research

The limitations noted for the study demand further research in such areas. The International Council of Nurses (2005) state that health is a fundamental right of every human being, unrestricted by nationality, race, creed, colour, age, gender, politics, or social status. The American Nurses Association's (2003) code of ethics states that nurses are to practise with respect for the inherent dignity of all persons, regardless of their social status or personal attributes. Nursing has a primary commitment to the patient/family/community and is dedicated to the dignity of each individual; it must recognise and address health disparities. One way to diminish imbalanced practice is to look at health care behaviour for vulnerable populations in developing countries.

The findings of this study increased the understanding that the knowledge and practice of BSE is a 'necessary precondition' to strengthening capacities of communities for self-initiated mobilisation in reducing the spread of breast cancer. Information on BSE does not only emerge

from processed data of a scientific process, but also as an outcome of a social learning process (socialisation).

There is a non-availability of resources to screen for breast cancer in most African countries, where other health issues take priority (Awodele et al., 2009). Thus, related research is needed in developing countries, where breast cancer is an emerging growing problem and screening practices are not affordable. In Nigeria mammograms are expensive and unavailable options to most women, even though breast cancer rates are rising (WHO, 2008). Simple, inexpensive and available methods of screening that do exist, such as the BSE empowerment programme developed by this study, should be made available to women between the ages of 20 and 60 years. Further research is recommended to provide empowerment programmes, using a participatory action approach, as intervention studies in other rural settings.

Also, further research should test the empowerment programme developed in this study in other settings, with a longer timeframe, to improve its generalisability. It is important that further investigations be conducted to complement the findings of this study, in order to reveal the best practices with regard to reducing the spread of breast cancer in developing countries.

7.7 Recommendations

The following recommendations are made to serve as key guidelines for the early detection of breast cancer in Oyo State, Nigeria:

1. Nurses and Midwife should sensitise the society to the fact that most indigenous women health practices are capable of dealing with past and present vulnerabilities of particular women's health issues.

2. Women health issues to be incorporated in the curriculum of training for nurses and midwife and seminars and workshop on health issues affecting women to be enforced in order to enhance their knowledge
3. A day should be set aside for women's health talks, just as is done on immunisation day, which must be made known to the women who are vulnerable. The health talks themselves must be thoroughly prepared beforehand, so that they are relevant to all members in a group.
4. BSE programmes in communities should follow a participatory approach, encouraging the highest level of participation. The benefits of this approach are twofold: it provides valuable insight into how communities and households interact and share ideas; and it allows the intended beneficiaries to develop the skills and practices necessary to forge their own paths and sustain the project or programme.
5. Government and other health stakeholders especially nurses and midwives should intensify efforts at sensitising the public on breast cancer through the use of print and electronic media, such as pamphlets, flyers, charts, radio and TV jingles, and at religious gatherings, and other formal and informal community meetings. Funding by an NGO or a philanthropist had not yet been achieved by the end of this study, but efforts are being made by the researcher to achieve this.
6. Given that rural populations in Nigeria have problems of inaccessible roads, underdevelopment, poverty and marginalisation, further design and evaluation of innovative and sensitive educational programmes should be investigated. Similarly, education programmes focusing on BSE as an easy and cost-effective screening method

are preferable options in developing countries, where the cost of mammography is prohibitively high and the service mostly unavailable.

7. The Cancer Society of each country needs to recommend that the monthly practice of BSE begin at the age of 20 years, in order for women to develop BSE as a monthly habit, and to encourage women to take responsibility for their own health.

7.8 Conclusion

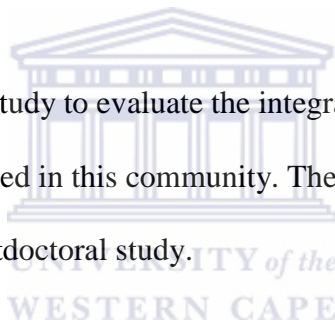
The findings showed that the development of an empowerment programme on BSE practice aimed at the prevention of breast cancer enhanced communication initiation and women's self-empowerment. Application of the theoretical model, Kieffer's empowerment process, as well as of the Health Belief Model and the health education and promotion philosophy, provided the knowledge that a woman who is aware of the critical nature of breast cancer, and who perceives her susceptibility to the disease, is more likely to perform regular BSE than others without such health information knowledge given by the nurses and midwives. Similarly, a woman who perceives more benefits from BSE and fewer barriers to it would be more likely to practise the examination. A woman who has a positive internal cue (positive body perception or image), or who has been exposed to an external cue (e.g. the positive influence of a health care provider or the media), would more readily practise BSE, as would a woman who wants to improve her health and is confident of positive results (Champion, 1987; Olopade, 2005).

The study also established that a lack of knowledge of BSE as breast cancer preventive technique has serious implications for women's health. The provision of information by the communication of BSE health messages has been described as an important tool in the teaching and learning of health issues (Awodele et al., 2009; WHO, 2002). The sources of such

information must be dynamic enough to disseminate the information to people of different classes and socio-economic status, among other characteristics.

As demonstrated, in spite of their lack of knowledge of BSE, the participants became interested in improving their health behaviour after being motivated by the information provided through the study. The respondents demonstrated that they cared about the state of their health; hence, even though they were afraid of getting breast cancer, they felt handicapped by their lack of information and empowerment training/education on BSE practice, among other things. Therefore, by designing and implementing the BSE programme, this study empowered the women in the study area towards BSE practice and, consequently, the reduction of breast cancer incidence in the community.

There is a need for further study to evaluate the integration, effectiveness and efficiency of the programme that was developed in this community. The researcher intends to carry out a reintegration investigation as a postdoctoral study.



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Annexure A: Information sheet

PROJECT TITLE: AN EMPOWERMENT PROGRAMME FOR WOMEN ON BREAST SELF-EXAMINATION TOWARDS THE PREVENTION OF BREAST CANCER IN IDDO LOCAL GOVERNMENT, SOUTH WEST, NIGERIA

This is a research project being conducted by **VICTORIA FUNMILAYO HANSON** from the University of the Western Cape. I am inviting you to participate in this research project because you are a woman between 20 and 60 years and within the child bearing age and within puberty and menopausal age.

The purpose of this research project is

To develop an empowerment programme for women on breast self-examination for the prevention of breast cancer in a rural community in south western state of Nigeria

For all women BSE training and practice is the gateway health promotion behaviour that provides women with the knowledge that sets the stage for screening procedures. The intention of the researcher to bridge the gap and jointly work with the women to develop a BSE program that will be acceptable and feasible to empower them on the practice of BSE for the prevention of breast cancer and finally reduce mortality rate due to breast cancer.

Information on participation

- 1.** Survey: complete questionnaire or be interviewed on the phenomenon to be studied which is the knowledge and practice of Breast Self-Examination, it will take about 10 -20 minutes.
- 2.** Participate in the reflection stage at the FGD and nominal group technique based on the result of the survey above
- 3.** Plan with the researcher on the action needed after planning (training on BSE) and making recommendations on the action phase
- 4.** Participate in the implementation phase of mother-to-mother practice of BSE using the developed BSE programme guide.

Location of the study

Location of the study is Iddo Local Government of Oyo State Nigeria.

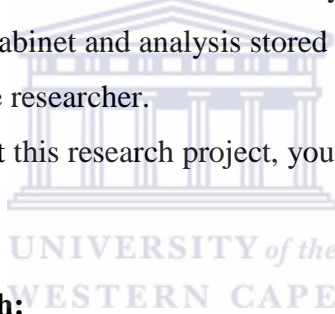
Duration of participation will be between 3 and 4 months and based on each phase result

Will my information be kept confidential?

Your participation and personal information will be kept confidential and maintained throughout.

Surveys:

1. Name will not be included on the survey.
2. Coded identification will be used
3. Identification key will be used to link your survey to your identity
4. The researcher alone will have access to the identification key
5. Data collected will be locked in a cabinet and analysis stored in a password protected computer. The password is only known by the researcher.
6. If a report or article is written about this research project, your identity will be protected as no name will be mentioned.



Risks associated with the research:

1. No obvious risk associated with this study other than women feeling embarrassed when the procedure of BSE is been taught and practiced, this will be taken care of by ensuring that the practice is done in a cubicle that provides privacy.
2. The risk of discovering a lumps/growths in the breast - the participant will be followed to the hospital for treatment and given psychological and financial support if within the limits of the researcher's fund.

Benefits of this research

There is no financial gain but the women and community will benefit from the proposed study as the outcome will advance the understanding of women on the importance of BSE practice to be healthy and live longer by early detection of breast abnormality and prevention of maternal mortality from breast cancer. The study is also significant because it deals with women's health, which has been receiving global attention lately. Women influence the growth and development

of children especially in African society. Any study that has the potential of affecting the health of women positively should be encouraged, since preserving a woman's life is preserving a whole community and the society as it will reduce the maternal morbidity and mortality rate (MMR) in Nigeria in line with the WHO and UMDG statement on reducing MMR. The results can help with the development of a support structure/policy to with clear guidelines.

Do I have to be in this research and may I stop participating at any time?

Your participation in this research will be completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalised or lose any benefits to which you otherwise qualify. Participants in which lump/growth is discovered will be referred for treatment, counselled and supported by the researcher.

What if I have questions?

This research is being conducted by VICTORIA FUNMI HANSON of Department of Community and Health Sciences at the University of the Western Cape. If you have any questions about the research study itself, please contact VICTORIA FUNMI HANSON at: _National Open University of Nigeria, Ibadan study centre. +234 8052158242. Email address toriasonus@gmail.com_3177872@uwc.ac.za

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Head of School: PROF OLUYINKA ADEJUMO

Dean of the Faculty of Community and Health Sciences:

University of the Western Cape

Private Bag X17

Bellville 7535

This research has been approved by the University of the Western Cape's Senate Research Committee and Ethics Committee.

Annexure B: Consent form

Please ensure that you complete a **CONSENT FORM** before you partake in the study.

Declaration by participant:

By signing below, I..... Agree to take part in a research study entitled “: To develop an empowerment programme for women on breast self-examination towards the prevention of breast cancer in Iddo local government of Nigeria

I declare that:

- I have read this information and consent form and it is written in a language with which I am fluent and comfortable with also to be int.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is voluntary and I have not been pressured to take part.
- I may choose to withdraw from the study at any time and will not be penalised in any way.
- I understand I will not be paid to participate in the study.
- ----- I agree to be audio taped during the group discussion sessions.
- ----- I do not agree to be audio taped during the group discussion sessions

Signed at (place) on (date) 2011.

Witness1

Witness 2

Declaration by researcher:

I (name) declare that:

- I explained the information with regard to this study to the participants
- I encourage him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understand all aspects of the research, as discussed above.

Signed at (place) on (date) 2011.

Witness 1,Witness 2

Annexure C: Letter of request to participating Local government Authority to conduct Research



UNIVERSITY OF THE WESTERN CAPE
Private Bag X 17, Bellville 7535, South Africa
Tel: +234-8052158242
E-mail: toriasonus@gmail.com

Dear Sir,

I am a postgraduate student at the University of Western Cape, studying to fulfill the requirements for PhD in Nursing. My research topic is to develop an empowerment program for women on breast self-examination towards the prevention of breast cancer in Iddo local government of Nigeria

My passion is in the area of women's health specifically maternal and child health nursing, the practice of Breast Self-Examination for the prevention of breast cancer which has been shown by recent studies to be on the increase motivated the researcher carry out the study in this community with the intention to reduce mortality rate due to breast cancer, the community will benefit from the proposed study as the outcome will advance the understanding of women on the importance of BSE practice to be healthy and live longer by early detection and prevention.

Access to your institution would be of great importance to complete the study. The interview will be conducted in a private room in the ward health center. I therefore seek your permission to conduct my research investigation in your community health care center in selected wards. I am attaching my research proposal with necessary information sheet and informed consent that will be provided to participants. Participation will be voluntary and they may withdraw, without any negative effect from the study at any time. All information of the participant and your institution will be handled confidentially and will be transcribed personally. The participants will remain anonymous and coding will be used to protect participant's identities. A professional counselor accompanied the researcher for emotional support during the data collection.

Information acquired during the research project will be shared with all the participants and policy makers prior to public dissemination. Results of the study will be published in an accredited journal.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'T. Iason'.

Student No:3177872
Cell no:08052158242

Supervisor: PROF OLUYINKA ADEJUMO

School of Nursing
University of Western Cape
Private Bag X17, Bellville 7535, Western Cape, South Africa
Cell no: +27219593024

Annexure D: Letter to the Local Government health centres



UNIVERSITY OF THE WESTERN CAPE
Private Bag X 17, Bellville 7535, South Africa
Tel: +27 21-959, Fax: 27 21-959
E-mail: toriasonus@gmail.com

I am a postgraduate student at the University of Western Cape, studying to fulfill the requirements for PhD in Nursing. My research topic is to develop an empowerment program for women on breast self-examination towards the prevention of breast cancer in Iddo local government of Nigeria.

My passion is in the area of women's health specifically maternal and child health nursing, the practice of Breast Self-Examination for the prevention of breast cancer which has been shown by recent studies to be on the increase motivated the researcher carry out the study in this community with the intention to reduce mortality rate due to breast cancer, the community will benefit from the proposed study as the outcome will advance the understanding of women on the importance of BSE practice to be healthy and live longer by early detection and prevention. Questionnaires will be filled by women or research assistant during the survey in all the wards. They will be selected by purposive sampling and informed consent will be obtained from them to participate in the interview and group technique session. The interview will be conducted in a private room in the ward health centre. Permission to conduct my research investigation in your community health care centre in selected wards has been obtained from the local government health authority. I am attaching my research proposal with necessary information sheet and informed consent that will be provided to participants. Participation will be voluntary and they may withdraw, without any negative effect from the study at any time. All information of the participant and your institution will be handled confidentially and will be transcribed personally. The participants will remain anonymous and coding will be used to protect participant's identities. A professional counsellor will accompany the researcher for emotional support during the data collection.

Information acquired during the research project will be shared with all the participants and policy makers prior to public dissemination. Results of the study will be published in an accredited journal.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Oluyinka Adejumo', is written over a faint, large watermark of the University of the Western Cape logo.

Student No: 3177872
Cell no: 08052158242
Supervisor: Prof Oluyinka Adejumo

School of Nursing
University of Western Cape
Private Bag X17, Bellville 7535, Western Cape, South Africa
Cell no: +27219593024

Annexure E: Confidentiality Binding Form



UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: Tel: +234-8052158242

E-mail: toriasonus@gmail.com

Title of research Project: An Empowerment Programme for Women on

Breast Self-Examination towards the Prevention of Breast Cancer in Iddo Local Government, South West, Nigeria

The study has been described to me in the language i understand and i freely and voluntarily agree to participate in all the sessions of the focus group discussion. My questions about the study have been answered. I understand that my name will not be disclosed and I'm free to withdraw at any time without any reason and will not have any negative effect on me.

Participant's name:.....

Participant's Signature/Thumb Print..... Date.....

I further agree that the interview and discussion be recorded

Participant's Signature/Thumb Print..... Date.....

I further agree that the researcher take field notes

Participant's Signature/Thumb Print..... Date.....

Witness..... Date.....

I state that the information discussed at the focus group session will be held confidential and not discussed with anybody

Participant's name:.....

Participant's Signature/Thumb Print..... Date.....

Victoria F.Hanson

Researcher

Should you have any questions regarding this project or wish to report any problem experienced during the course of this study, please contact the Study coordinator.

Study Coordinator Name; Prof Oluyinka Adejumo

University of Western Cape
Private Bag X17, Bellville 7535
Western Cape. South Africa.
Cell no:+27219593024
Email: oadejumo@uwc.ac.za

Annexure F: Questionnaire for the study

Instruction to Interviewer

If participant, says Yes continue with the interview, read out the question as written down. Do not try to give hints, just circle the chosen options or follow appropriate instructions as indicated.

Section A

(To the interviewer/ Participant)

Circle the correct response to the following questions, or write down the response in the space provided.

1. What is the name of your village?
 - a. Gbekuba
 - b. Ogundele/Shiba
 - c. Ilaju
 - d. Iddo
 - e. Apete

2. Age
 - a. 20-30 years
 - b. 31-40 years
 - c. 41-50 years
 - d. 51-60 years

3. Marital Status
 - a. Single
 - b. Married
 - c. Widow
 - d. Divorced

4. Education Status
 - a. illiterate
 - b. primary school
 - c. secondary school
 - d. tertiary school

5. Women Occupation
 - a. housewife
 - b. farming
 - c. trading
 - d. civil servant

6. Religion
 - a. Traditional religion
 - b. Islam
 - c. Christianity
 - d. Others (please indicate)

7. Perceived family income level
 - a. sufficient



- b. fairly sufficient
- c. just sufficient
- d. insufficient

8. What is your source of Information on health issues?

a. No information

b' Health professionals

c. Friends/neighbour

d. Radio

8 SECTION B: KNOWLEDGE OF BREAST SELF EXAMINATION

Tick the appropriate response	Yes	No	Undecided
A woman is expected to do BSE, 2 nd or 3 rd day after menstruation monthly			
For women with irregular menses or those that have reached menopause, breast self-examination should be done on a particular day monthly.			
Three process of breast self-examination are standing in front of a mirror, lying down and when bathing			
Breast self-examination is divided into two: (i) Observation (ii) Palpation			
During breast self-examination, attention should be paid to the armpit, neck and breast for lumps.			
The advantage of BSE is that a woman is in the best position to ascertain if there are changes in her breast.			
Thin people have the advantage of detecting breast lumps easily.			
It is more difficult for fat women to detect breast lump.			
Younger women (<50 years) discover breast lump than the older women.			

9 SECTION C: PRACTICE OF BSE

Please tick the appropriate answer	Yes	No	Undecided
How do you examine your breast			
Stand in front of a mirror			
Look at the breast and note any difference in Shape Size Nipple or skin darkness			
Check for swelling, increased warmth or tenderness in either breast			
Look at the nipples for size, shape and direction in which they point.			
Check for rashes or sores and nipple discharge			
Look at breast while by putting hands over her head and presses her hands on her side			
Check breasts are equal in front of a mirror			
Lies down on bed to check the breast			
Look at her left breast and note any difference from the right breast			
Place pillow under her left shoulder and place her arm over her head.			
Palpate the entire breast round. Note any swelling or tenderness.			
Squeeze the nipple gently and note any discharge.			
Do the same for the right breast, sitting up and with her arms at her sides.			
Do you sit up and raise arm to palpate the tail of the breast and check for swelling or tenderness.			
Do the same for the right side			

SECTION D

10. HEALTH BELIEF MODEL

10.1 SUSCEPTIBILITY

		Strongly Agree-	Agree-	Neutral-	Disagree-	Strongly Disagree-
1	It is extremely likely I will get breast cancer in the future					
2	I feel I will get breast cancer in the future.					
3	There is a good possibility I will get breast cancer in the next 10 years					
4	My chances of getting breast cancer are great.					
5	I am more likely than the average women to get breast cancer.					

10.2 SERIOUSNESS

		SA	A	N	D	SD
1	The thought of breast cancer scares me.					
2	When I think about breast cancer, my heart beats faster					
3	Problems I would experience with breast cancer would last a long time.					
4	Breast cancer would threaten a relationship with my partner					
5	If I had breast cancer my whole life would change					
6	If I developed breast cancer, I would not live longer than 5 years					

10.3 BENEFITS (BSE)

		SA	A	N	D	SD
1	When I do breast self-examination I feel good about myself					
2	When I complete monthly breast self-examination I don't worry as much about breast cancer.					
3	Completing breast self-examination each month will allow me to find lumps early					
4	.If I complete breast self-examination monthly during the next year I will decrease my chance of surgery or dying from breast cancer					
5	If I complete monthly breast self-examination it will help me to find a lump which might be cancer before it is detected by a doctor or nurse					

10.4 BARRIERS (BSE)

		SA	A	N	D	SD
1	I feel funny doing BSE					
2	Doing BSE during the next year will make me worry about breast cancer.					
3	BSE will be embarrassing to me					
4	Doing BSE will take too much time					
5	Doing BSE will be unpleasant					
6	I don't have enough privacy to do BSE					

10.5 CONFIDENCE

		SA	A	N	D	SD
1	I know how to perform breast self-examination					
2	I am confident I can perform breast self-examination correctly					
3	I would be able to find sore by performing breast self-examination					
4	I am able to find a growth if I practice breast self-examination					
5	I am able to find a breast lump which is the size of a quarter, dime or pea					

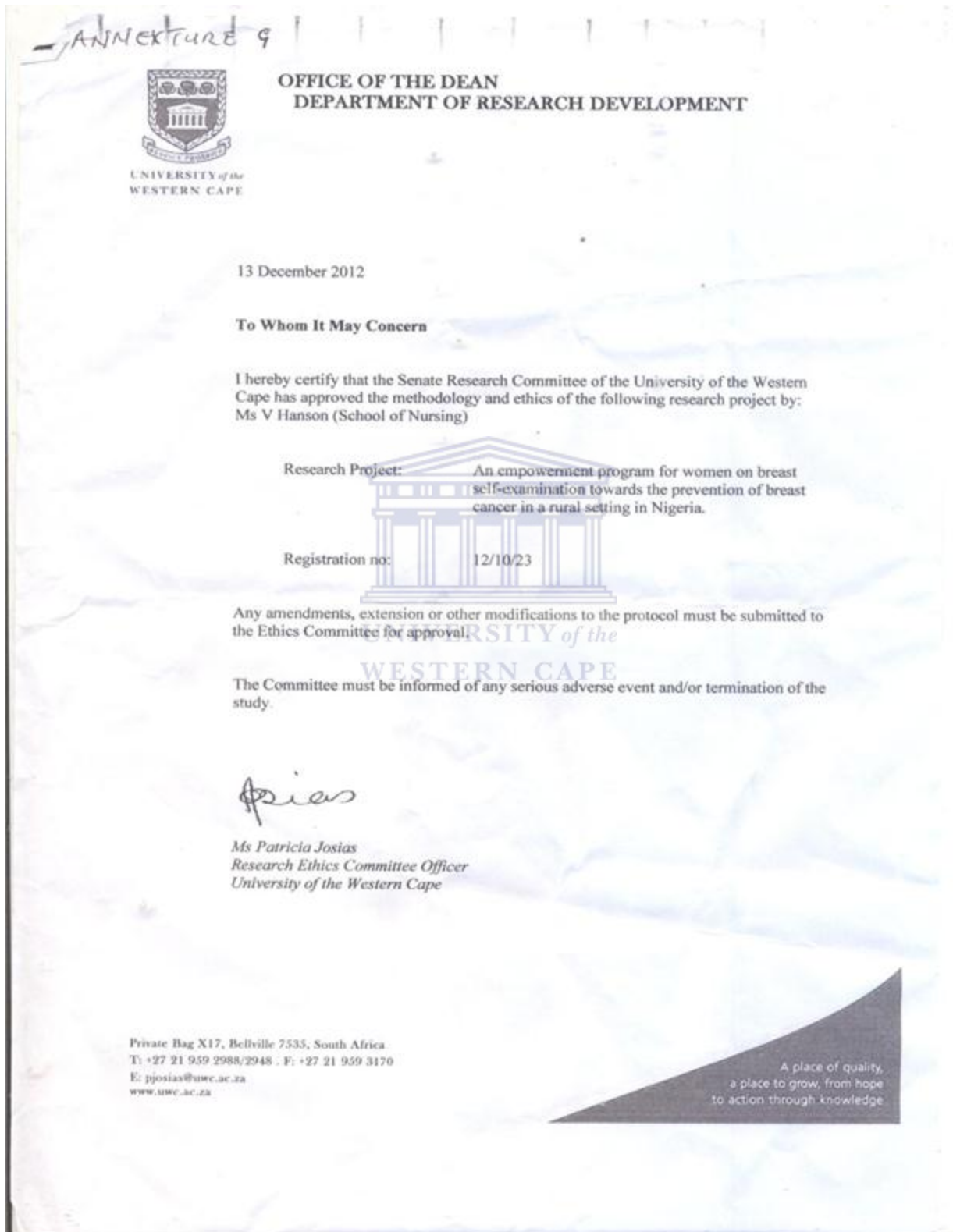
6	I am sure of the steps to follow for doing breast self-examination					
7	I am able to identify normal and abnormal breast tissue when I do breast self-examination					
8	When looking in the mirror, I can recognize abnormal changes in my breast.					
9	I can use the correct part of my fingers when I examine my breasts.					

10.6 HEALTH MOTIVATION

		SA	A	N	D	SD-
1	I want to discover health problems early					
2	Maintaining good health is extremely important to me.					
3	New health information to improve my health					
4	I feel it is important to carry out activities which will improve my health...					
5	I eat well good meals					
6	I exercise at least 3 times a week					
7	Visit clinic even I am not sick					



Annexure G: Approval letter by University of Research Ethics Committee



Annexure H: Pamphlet developed

ANNEXURE H

Akoko Ayewo

- Lehin nkan osu
- Ti oko base nkan osu mo, yewo lojo kan ti o ti ya soto losososu

Ti o ba n se ayewo omu re, se akiyesi fun awon amin wonyi:

- Se kosi eda Kankan lati nu omu re
- Se omu re kan kotobi ju keji lo
- Se ara omu re ko wonu nibi Kankan
- Se egbo tabi apa kosi lori omu re
- Tabi Koko ilae nigba ti onlowote omu re yika

Awon ona tategba sayewo omu wa.

Ona Kimi: Duro siwaju jigi pelu owo re mejeeji ni egbe re, se ayewo boya omu re kan to bi ju ikeji lo.

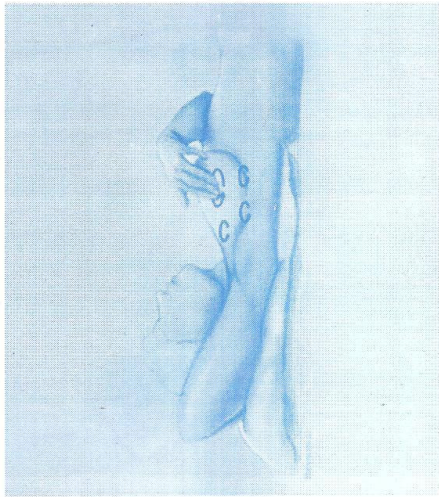
Ona Keji: Nibayi, gbe owo re mejeeji si ipako re, ki osise akije omu re ninu jigi boya iyato wa laarin omu mejeeji tabi akiyesi fun kooro omu.

Ona Keta: Gbe owo re mejeeji si ibadi re ko si bere lati se ayewo ati akiyesi omu re ninu jigi.

Ona Kerin: Fi pelepele te ori omu re wo ki o si se akiyesi boya omu, eje tabi ohunkanmiran jade ninu re.

Ona Kaarun: Kapa otun tabi osi re soke, pelu ika meerin owo keji, te omu re wo, lati abiyare wa sibi omu ati egun orun lati se ayewo ati akiyesi fun koko.

Ona Kefa: Ona to dara ju ni ki asun ni eyin wa gbalaja pelu owo kan lori, fi irori si abe ejika osi, ko si fi owo keji te omu re wo yika lati abiya de ori omu.



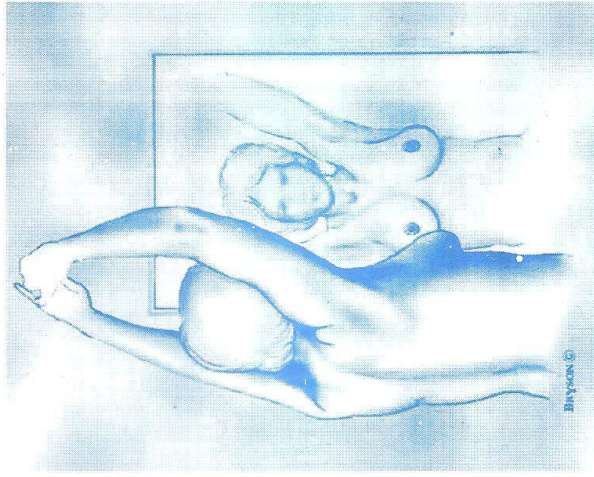
Akiyesi:

To ba kefin awon nkan wonyi, yara fi to awon eleto ilera leti.

- omu re kan kotobi ju ikeji
- omu re ko te wonu nibi Kankan
- egbo lori omu tabi apa
- eda lati nu omu yato si omi omu.
- Koko ilẹ

Yiye omu ara eni wo dara pupo lati dena arun kansa lawujo awa obinrin. Niitori eyi, gbiyanju lati ye omu re wo lekan loosu leyin to ba se nkan osu re tan ati lodo awon eleto ilera lẹmẹeji lodun fun alafia arare.

**ILANA LATI SE AYEWO
OMU ARA ENI FUN
IDENA ARUN KANSA.
(BSE)**



Lati dena ati kefin arun kansa omu, se ayewo omu re wo.

Developed as:

Part of a Breast Cancer

Empowerment Program Among

Rural Women in IDDO L.G.

by

HANSON, VICTORIA F.

SCHOOL OF NURSING,

UNIVERSITY OF WESTERN


CAPE

CAPE TOWN

SOUTH AFRICA.

Annexure I: Approval letter by the Ministry of Health, Oyo State

TELEGRAMS..... TELEPHONE.....



MINISTRY OF HEALTH
DEPARTMENT OF PLANNING, RESEARCH & STATISTICS DIVISION
PRIVATE MAIL BAG NO. 5027, OYO STATE OF NIGERIA

Your Ref. No.
All communications should be addressed to
the Honorable Commissioner quoting
Our Ref. No. AD 13/ 479/4.97

2nd January, 2013

The Principal Investigator,
School of Nursing,
University of Western Cape
Bellville,
Cape Town,
South Africa.

Attention: Victoria.F.Hanson
REQUEST TO UTILIZE HEALTH FACILITY FOR RESEARCH STUDY IN
IDDO LOCAL GOVERNMENT, IBADAN,OYO STATE


Ethical Approval for the Implementation of your Research Proposal in Oyo State

This acknowledges the receipt of the corrected version of your Research Proposal titled: -
"Development of Empowerment Program on Breast Self Examination for Prevention of
Breast cancer in Iddo Local Government Area, Ibadan, Oyo state, Nigeria ."

2. The committee has noted your compliance with all the ethical concerns raised in
the initial review of the proposal. In the light of this, I am pleased to convey to you the
approval of committee for the implementation of the Research Proposal in Oyo State,
Nigeria.

3. Please note that the committee will monitor closely and follow up the
implementation of the research study. However, the Ministry of Health would like to
have a copy of the results and conclusions of the findings as this will help in policy
making in the health sector.

4. Wishing you all the best.



Sola A. (Dr)
Director, Planning, Research & Statistics
Secretary, Oyo State, Research Ethical Review Committee

Annexure J: Checklist for Breast Examination Practice

(To be completed by Researchers and health workers)

Place a \checkmark in case box if step/task is performed **satisfactorily**, and \times if it is **not** performed **satisfactorily**, or **N/O** if not observed.

Satisfactorily: Performs the step or task according to the standard procedure or guidelines

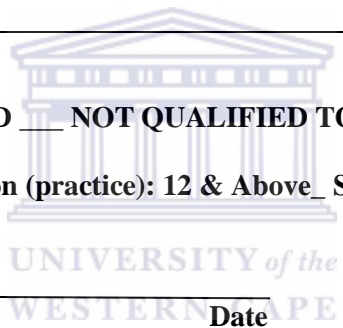
Unsatisfactorily: Unable to perform the step or task according to the standard procedure or guidelines

CHECKLIST FOR BREAST EXAMINATION		
STEP/TASK	SCORE	
	1	0
GETTING READY		
1. Greet the woman respectfully		
2. Woman washes her hands thoroughly and dries them.		
3. Woman undresses from her waist up. Sits on the examining table with her arms at her sides		
BREAST EXAMINATION		
4. Stands in front of a mirror		
5. Look at the breast and note any difference in <ul style="list-style-type: none"> • Shape • Size • Nipple or skin puckering • Dimpling 		
Check for swelling, increased warmth or tenderness in either breast.		
6. Lies down on the couch		
7. Looks at the nipples and note size, shape and direction in which they point. Check for rashes or sores and nipple discharge.		
8. Looks at breast while she puts hands over her head and presses her hands on her hips. Check to see if breast hang evenly in front of a mirror		
9. She lies down on the examining table.		
10. Look at her left breast and note any difference from the right breast		

11. Place pillow under her left shoulder and place her arm over her head.		
12. Palpate the entire breast using the spiral technique. Note any lumps or tenderness.		
13. Squeeze the nipple gently and note any discharge.		
14. Repeat these steps for the right breast, sitting up and with her arms at her sides.		
15. Sits up and raises her arm. Palpate the tail of the breast and check for enlarge lymph nodes or tenderness.		
16. Repeat this procedure for the right side		
17. After completing the examination, she covers herself. State any abnormal findings. If the examination is normal, she is asked when she should repeat examination.		
18. Show the woman how to perform breast self-examination. if not satisfied with her skills in BSE		
TOTAL(18)		

PARTICIPANT IS ___ QUALIFIED ___ NOT QUALIFIED TO PERFORM BREAST

• Performance of Breast Examination (practice): 12 & Above_ Satisfactory _>_12_ Unsatisfactory



Researcher / Health workers signature

Date

Annexure K: Phase 3 Expert Workshop evaluation – July 2013

A. Please respond to the following questions to indicate to which extent you agree with each statement (tick for the appropriate answer):

Evaluation item	Strongly agree	agree	Strongly disagree	disagree
1. The objectives of the study were clear				
2. The research process was clear				
3. Phase I observe: collection of data				
4. Phase two reflection by Focus Group Discussion				
5. Did suggestions inform recommendations				
6. Did recommendations inform program contents				
7. Did the components of the program address BSE				
8. Will the program ensure BSE practice				
9. The materials used for implementation adequate				
10. Workshop session well organised				
11. The venue of the session appropriate				
12. The refreshment were adequate				

13. What are your comments on the process in general.....

.....
14. Any other comments.....

Thank you.



Annexure L: Maps
NIGERIA SHOWING OYO STATE



IDO LOCAL GOVERNMENT

