BREAST CANCER PREVENTION AND TREATMENT PRACTICES AMONG WOMEN OF REPRODUCTIVE AGE IN BAHI DISTRICT, TANZANIA

MPALI ADELA MARIA

Q139EA/27132/2014

A THESIS REPORT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF PUBLIC HEALTH (REPRODUCTIVE HEALTH) OF KENYATTA UNIVERSITY

JUNE, 2019
DECLARATION

This thesis is my original work and has not been presented for an award of a degree in any other University.

Signature............................................................  Date......................................

Mpali Adela Maria - Q139EA/27132/2014
Dpt. of Population, Reproductive Health and Community Resource Mgt

SUPERVISORS

We confirm that the work reported in this thesis was carried out by the candidate under our supervision.

Signature............................................................  Date......................................

Dr. Judy Mugo
Dpt. of Population & Reproductive Health and Community Resource Mgt

Signature............................................................  Date......................................

Dr. Onditi Kodhiambo M.
Dpt. of Pharmacognosy, Pharmaceutical Chem and Pharmaceutics
DEDICATION

I dedicate this work to God Almighty for his grace upon me. I also wish to dedicate it to all women for they are special beings in the society.
ACKNOWLEDGEMENT

First of all I would like to thank God Almighty for the gift of life and His protection, Knowledge and amazing power to write this research. I also like to express my heartfelt and inmost gratitude to my supervisors Dr. Judy Mugo, Dr. Ondinti Kodhiambo and Dr. Peter Kithuka who took keen interest in my research work, their encouragement guidance and their timely support throughout my study.

I am deeply indebted by the congregation of St. Gemma Galgani Sisters who gave me the opportunity to study a master degree in Kenya and their moral support. Special thanks to His Excellency Bishop Beatus Kinyaia, the Archbishop of Dodoma Diocese, for supporting me financially and through his timely encouraging messages. Special regards to Fr. Thomas Mayawu for his immense contribution, encouragement and advice throughout my research period. I am also grateful to Fr. Steven Karingu St. Peters Clavers’ Catholic Parish Nairobi Arch Dioceses his support is beyond measure. In special way I wish to appreciate Mr. Paul Nyaga for his technical support, advice and encouragement throughout my research.

I also extend my gratitude to the District Executive Director of Bahi for the approval to conduct my study in Bahi Division. My heartfelt regard goes to Administration of St. Gemma Hospital, and to all women of reproductive age for the role they played in this study.

Finally, in a very special way I would like to thank my late parents who till their death supported me and this work with all their hearts and souls. I will not forget them in my prayers.
TABLE OF CONTENTS

DECLARATION .......................................................................................................................... ii
DEDICATION ............................................................................................................................ iii
ACKNOWLEDGEMENT ........................................................................................................ iv
TABLE OF CONTENTS .......................................................................................................... v
LIST OF FIGURES .................................................................................................................. viii
LIST OF TABLES .................................................................................................................... ix
ABBREVIATIONS AND ACRONYMS .................................................................................. x
DEFINITIONS OF OPERATIONAL TERMS ........................................................................ xi
ABSTRACT ............................................................................................................................... xii

CHAPTER ONE: INTRODUCTION ......................................................................................... 1
1.1 Background to the study ................................................................................................. 1
1.2 Problem Statement ....................................................................................................... 3
1.3 Justification .................................................................................................................... 4
1.4 Research Questions ...................................................................................................... 4
1.5 Null Hypothesis ............................................................................................................ 5
1.6 Research Objectives ..................................................................................................... 5
  1.6.1 Main Objective ......................................................................................................... 5
  1.6.2 Specific Objectives .................................................................................................. 5
1.7 Significance of the Study .............................................................................................. 6
1.8 Limitation and Delimitation of the Study .................................................................... 6
  1.8.1 Limitation ................................................................................................................ 6
  1.8.2 Delimitation and Scope of the Study ...................................................................... 7
1.9 Conceptual Framework ................................................................................................. 8

CHAPTER TWO: LITERATURE REVIEW ............................................................................. 9
2.1 Introduction .................................................................................................................... 9
2.2 The Theoretical framework ........................................................................................ 10
2.3 Global Situation of the Breast Cancer Challenges ....................................................... 11
2.4 Africa situation of breast cancer ................................................................................. 15
2.5 Tanzania Perspective of Breast Cancer ....................................................................... 17
2.6 Bahi Division Situation of Breast Cancer .......................................................... 18
2.7 Trends of Breast Cancer among Women............................................................. 19
2.8 Influence of socio-cultural factors on the management of breast cancer .......... 20
2.9 Breast Cancer Prevention .................................................................................. 21
2.10 Research Gap.................................................................................................... 25

CHAPTER THREE: MATERIALS AND METHODS .................................................. 26
3.1 Introduction .......................................................................................................... 26
3.2 Research Design .................................................................................................. 26
  3.3.1 Independent Variables................................................................................... 27
  3.3.2 Intervening Variables .................................................................................. 27
  3.3.3 Dependent Variable .................................................................................... 27
3.4 Study Location..................................................................................................... 27
3.5 Target Populations .............................................................................................. 28
  3.5.1 Inclusion Criteria......................................................................................... 28
  3.5.2 Exclusion .................................................................................................... 28
3.6 Sampling Techniques .......................................................................................... 29
3.7 Sample Size ........................................................................................................ 29
3.8 Research instruments ......................................................................................... 31
3.8 Pre-Testing .......................................................................................................... 32
  3.8.1 Validity........................................................................................................ 32
  3.8.2 Instruments Reliability ................................................................................ 32
3.9 Data Collection Procedure ................................................................................ 33
3.10 Data Analysis ..................................................................................................... 33
3.11 Ethical Considerations ....................................................................................... 34

CHAPTER FOUR: RESULTS ................................................................................ 35
4.1 Introduction .......................................................................................................... 35
4.2 Response Rate .................................................................................................... 35
4.3 Socio-Demographic Characteristic of the Respondents ................................... 35
  4.3.1 Respondents Distribution by Division of Residence ................................... 36
  4.3.2 Distribution of Respondents by Socio-Demographic Characteristics ....... 37
  4.3.3 Distribution of the Respondents by the Level of Education ....................... 37
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.4 Presence of breast cancer awareness programmes in the area</td>
<td>38</td>
</tr>
<tr>
<td>4.4.1 Awareness and practice of breast self examination</td>
<td>38</td>
</tr>
<tr>
<td>4.5 Socio-cultural factors contributing to prevention and treatment of BC</td>
<td>43</td>
</tr>
<tr>
<td>4.7 Preventive and treatment measures put in place</td>
<td>45</td>
</tr>
<tr>
<td><strong>CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATION</strong></td>
<td>48</td>
</tr>
<tr>
<td>5.1 Introduction</td>
<td>48</td>
</tr>
<tr>
<td>5.2 Discussion</td>
<td>48</td>
</tr>
<tr>
<td>5.2.1 The Level of Breast Cancer Awareness in Bahi</td>
<td>48</td>
</tr>
<tr>
<td>5.2.2 Influence of Socio-cultural factors on the Prevention and Treatment</td>
<td>50</td>
</tr>
<tr>
<td>5.3 Conclusions</td>
<td>54</td>
</tr>
<tr>
<td>5.4 Recommendations</td>
<td>55</td>
</tr>
<tr>
<td><strong>REFERENCES</strong></td>
<td>57</td>
</tr>
<tr>
<td><strong>APPENDICES</strong></td>
<td>62</td>
</tr>
<tr>
<td>Appendix I: Consent Form</td>
<td>62</td>
</tr>
<tr>
<td>Appendix II: Research Questionnaires</td>
<td>65</td>
</tr>
<tr>
<td>Appendix III: Questionnaire for Focus Group Discussions</td>
<td>68</td>
</tr>
<tr>
<td>Appendix IV: KII for Chews, Reproduction Health Coordinator and NGOs</td>
<td>69</td>
</tr>
<tr>
<td>Appendix V: Fomu Ya Ridhaa Ya Kushiriki Utafiti</td>
<td>72</td>
</tr>
<tr>
<td>Appendix VI: Dodoso Za Utafiti</td>
<td>74</td>
</tr>
<tr>
<td>Appendix VII: Mahojiano Ya Faragha</td>
<td>78</td>
</tr>
<tr>
<td>Appendix VIII: Kenyatta University Ethics Committee Approval</td>
<td>79</td>
</tr>
<tr>
<td>Appendix IX: Kenyatta University Graduate School Approval</td>
<td>81</td>
</tr>
<tr>
<td>Appendix X: Kenyatta University Research Authorization</td>
<td>82</td>
</tr>
<tr>
<td>Appendix XI: Approval from the Ministry of Education, Science and Technology</td>
<td>83</td>
</tr>
<tr>
<td>Appendix XII: Approval from the Office of the President, United Republic of Tanzania Regional Administration and Local Government</td>
<td>84</td>
</tr>
<tr>
<td>Appendix XIII: Approval from Bahi District Commissioner</td>
<td>85</td>
</tr>
<tr>
<td>Appendix XIV: Study Area Map</td>
<td>86</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

Figure 1: Conceptual Framework ................................................................. 8
Figure 2: The theoretical framework for the study ........................................ 11
Figure 3: Residence of the Respondents .................................................... 36
Figure 4: Showing the awareness and practice of breast self examination ......... 39
LIST OF TABLES

Table 1: Sample Size Proportionate to Clustered Community Units ...................... 29
Table 2: Socio-Demographic Characteristics of the Respondents ................................ 37
Table 3: Analysis of the levels of awareness among women ........................................ 39
Table 5: Distribution of Respondents by Source of Awareness Program Rolled Out ... 42
Table 6: Socio-cultural practices on prevention and treatment of Breast Cancer ....... 43
Table 8: Health promotion and interventions put in place ........................................... 46
Table 9: Reliability Statistics for the Measures and Intervention in Place .................. 46
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC</td>
<td>Breast Cancer</td>
</tr>
<tr>
<td>BSE</td>
<td>Breast Self-Examination</td>
</tr>
<tr>
<td>CHEW</td>
<td>Community Health Extension Workers</td>
</tr>
<tr>
<td>CHW</td>
<td>Community Health Works</td>
</tr>
<tr>
<td>HIC</td>
<td>High Income Country</td>
</tr>
<tr>
<td>LIC</td>
<td>Low Income Country</td>
</tr>
<tr>
<td>MEWATA</td>
<td>Medical Women Association of Tanzania</td>
</tr>
<tr>
<td>TBCP</td>
<td>Tanzania Breast Cancer Project</td>
</tr>
<tr>
<td>TNBS</td>
<td>Tanzania Nation Bureau of Statistics</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
</tbody>
</table>
DEFINITIONS OF OPERATIONAL TERMS

Awareness: Making known to the public about the existence of a thoughtful condition or subject currently based on evidence or practice.

Breast Cancer: Is a malignant swelling that occurs in the breast as the result of abnormal cell growth and division within the breast.

Menarche: First menstruation period for a girl, occurs at regular monthly intervals.

Menopause: Absent of menstrual periods for a woman for twelve consecutive months.

Prevention: Is the action of preventing something or verifying something does not occur.

Reproductive age: Women’s years of life between menarche and menopause, roughly from ages 15 to 49.

Sign and Symptoms: A symptom is a sensation that is experienced by the individual affected by the disease, while a sign is a phenomenon that can be detected by someone other than the individual affected by the disease.

Stigma: Is a real negative attribute that causes somebody to devalue or think less of the whole.
ABSTRACT

This study was set to assess the breast cancer prevention and treatment practices among women of reproductive age (15-49yrs) in Bahi Division in Tanzania. It has been observed by research that lack of information of the breast cancer sickness has been a big problem in rural communities in Tanzania. This is attributed to the influence of socio-cultural factors like beliefs and practices such sickness is caused by witchcraft and evil spirits. Despite of the fact that the government of Tanzania has tried to come up with strategies to mitigate the prevalence of breast cancer among women of reproductive age more has to be done by people themselves by changing the beliefs that the disease is a curse. The study is guided by the objective to investigate breast cancer prevention and treatment practices among women of reproductive age in Bahi Division, Tanzania. The study employed cross-sectional survey design utilizing random sampling method to sample study participants. Both quantitative and qualitative approaches were considered in the study. The target population for the study was all the 9600 people which includes reproductive age (15-49) women and community health workers and community extension workers in four community units in Bahi Division. The researcher sampled 370 respondents through Fisher’s model. The data was collected by the use of administered questionnaires as the research instruments. The instrument was validated to check their consistency and reliability by consulting research experts and guidance from the supervisors. A total of 361 questionnaires met the threshold and the data obtained was analyzed using descriptive analysis and results presented in charts, tables, graphs and other relevant statistical presentations. The findings revealed that 51% of the respondents were aware of the disease and that there was a significant level of awareness about both breast cancer programs and breast examinations targeting women of reproductive ages in the area. The study also found that 49.7% of socio-cultural factors had a significant effect on the prevention and treatment of breast cancer disease in the area. The study established that 52.7% of respondents affirmed that there were considerable measures put in place to address breast cancer issues in the area.
CHAPTER ONE: INTRODUCTION

1.1 Background to the study

Breast cancer is globally acknowledged as one of the major causes of death in middle-aged women and is gradually becoming a grim public health concern in developing countries. Although cancer is considered a challenge of the developed countries, it continues registering huge numbers of death in low income countries. Breast cancer features second in the world as the most conjoint cancer among women. According to Vogel et al., (2006); World Health Organization [WHO], (2013); and the Global Health Observatory 2014), there are four types of cancer which are most prevalent: lung cancer, prostate cancer, breast cancer and bowel cancer.

According to the National Cancer Research Institute report [CRC], United Kingdom [UK] (May 2015), the worldwide distribution of women with breast cancer indicated prevalence of 6,663,001 already existing and 3,547,898 new cases. The global index shows 82.9 per 100,000 populations. In Africa cancer incidence appears more minimal than Europe and America (Curado, 2013). The American cancer society gives reasons for this as due to late menarche, early menopause, prolonged breast feeding, irregular menses and fewer ovulatory cycles (American Cancer Society, 2012). However cancer incidence in many African Countries particularly in rural areas remains unrecorded (Curado, 2013).

Over the years, breast cancer was often mistaken to be an adult woman’s disease; therefore, little or no concern was given to its prevention, detection and treatment especially to women approaching age 50 and above (Kinnon, 2003). Data from the
American Cancer Society show a contrasting statistics as the diseases strike even younger women of ages 20. They pointed that women of reproductive ages should be enlightened on the benefits breast self-examination and the benefits of performing the examination once in every three years a move which made medical practitioners and other breast cancer campaigners to recommend yearly mammograms as they approach age forty.

Tanzania like other East African countries the extent of breast cancer among women especially young women living in rural areas, has gone unnoticed until recently (WHO, 2014). According to a paper by Sakafu (2011), breast cancer has inflicted many women in both urban and rural areas in Tanzania. An estimated 1,000 breast cancer cases are diagnosed every year in different hospitals and many more go unreported. Breast Cancer rates are raising radically in Tanzania, as in many developing countries, there is extreme scarcity of resources and therefore the population in those countries are slammed with many complications with regard to breast cancer care and treatment.

Shortage of qualified healthcare professionals is perhaps the most serious challenge to relative to comprehensive cancer care. According to WHO’s presently the ratio of doctors to patients in Tanzania, stands at 1:25,000 against the WHO’s recommendation of 1:600. The imbalance results in non-qualified health worker who lacks the expertise and experience to effectively address health challenges. Sadly many women in rural areas do not take it seriously due to socio-cultural factors. As a result they often seek for medical treatment when cancer is at an advanced stage. Facts on the ground reveal that
women suffer scourge of breast cancer mainly due to lack of information, low levels of awareness of prevention and late or inconsistent diagnostic processes.

1.2 Problem Statement

A study by the Medical Women Association of Tanzania (MEWATA) (2009), conducted within Dodoma Region, breast cancer was found to be most prevalent among middle aged women. The study involved screening women for a whole spectrum of breast problems. They screened 6875 women and out of them 338 had breast problems while 25 had breast cancer. They cited that there is little being done to enlighten the people about the life threatening diseases like breast cancer. The numbers of women in the productive ages are on the rise in the rural and peri-urban areas of Bahi Division as shown in the recent community study by Medical Women Association of Tanzania (2009).

According to the district health records, new cases of breast cancer have risen significantly to 14.4% in 2017 from 12.5% in the year 2009 with statistics projecting that there could be more unreported cases. Scholars tend to point out to cultural lifestyle, traditional customs and beliefs as major issues affecting prevention and control. Residents have often been taken into context agreeing that such sicknesses are caused by witchcraft and evil spirits. A lot of attempt have been made by the government and other organization such as the Medical Women Association of Tanzania (MEWATA), Tanzania Breast Cancer Project (TBCP) but have failed to reach the community level. Communities in deep rural areas have suffered more, making breast cancer a more persistent problem due to low income for diagnosis and other
treatment and control requirements and cause of suffering and death due to inadequate awareness in the rural areas in Bahi (MEWATA 2009). According to the Tanzania Breast Health Care Assessment Forum (2017), breast cancer control and prevention is a huge burden to the patients, government and healthcare agencies.

1.3 Justification
The index of breast cancer in Tanzania is quite high as it stands at 14.4% and is relatively higher in young women than elderly women. According to MEWATA, most women seek medical attention when it is at an advanced level, after resorting to traditional local treatment. Bahi being the administrative district of Dodoma region has complex composition of cultures, high population and influenced lifestyle. Breast cancer has challenged the productivity of able bodied young women who can contribute a lot to domestic economy and that of the nation at large. It is therefore right and just to rescue this situation. The findings of these study will advise in policy formulation, training of health promotion personnel and improving in intervention that are in place towards the prevention and treatment of breast cancer.

1.4 Research Questions

i. What is the level of awareness on prevention and treatment of breast cancer among women in their reproductive age in Bahi Division?

ii. What are the socio-cultural factors contributing to prevention and treatment of Breast cancer among women in reproductive age in Bahi Division?

iii. What health measures have been put in place to support prevention and treatment of breast cancer among women in Bahi Division?
1.5 Null Hypothesis

$H_0$: Women of reproductive age across Bahi division are aware of prevention and treatment of breast cancer disease.

$H_1$: Socio-cultural factors do not have an influence on the prevention and treatment of breast cancer among women of reproductive age in Bahi.

$H_2$: There are health measures put in place on prevention and treatment of breast cancer among women of reproductive age in Bahi division.

1.6 Research Objectives

1.6.1 Main Objective
To investigate the prevention and treatment of breast cancer among women of reproductive age in Bahi Division Tanzania

1.6.2 Specific Objectives

i. To determine the levels of awareness on prevention and treatment of breast cancer among women of reproductive age in Bahi Division.

ii. To determine socio-cultural factors contributing to prevention and treatment of breast cancer among women of reproductive age in Bahi Division.

iii. To identify measures put in place to influence prevention and treatment of breast cancer among women of reproductive age in Bahi Division.
1.7 Significance of the Study

The finding of this study will significantly benefit to the following parties:

The Government of Tanzania may develop a policy on breast screening which will help to generate public awareness on prevention of the disease.

Social groups: breast self-examination as a preferred and readily available method of screening in Tanzania as helpful.

The ministry of health would be called upon through this study to conduct awareness campaigns on breast cancer and its examinations through media channels in native languages to reach out to many rural women. The Government through its health ministry and other concerned stakeholders was challenged to develop more teaching manuals and materials at the disposal of care professionals so that the information is regulated evenly to all women. The study will also drum up for the inclusion of breast cancer and BSE lessons in the Tanzanian school curricula so that more adolescents get informed at age.

Finally, this study may be necessary to other researchers as well as the will set a benchmark to pave the way for further studies on the topics surrounding breast cancer prevention and management.

1.8 Limitation and Delimitation of the Study

1.8.1 Limitation

Most African communities observe some orders from their elder kin especially the clan heads and therefore reaching out women for interviews may be considered a challenge.
For instance, when they seek to interview women on sensitive issues as knowledge of cultural practices influencing their attitude towards breast cancer, it may sound absurd therefore prompting them to rebel against the study.

Due to the community engagements and subscriptions to traditions and cultural practices the study is likely to encounter a challenge on how to ask specific questions and devise a proper approach from one household to the other.

Personal privacy is likely to be another challenge since some respondents may feel the questions are more personal especially those who believe in culture and perceive breast cancer as a curse to those who break taboos in the community.

1.8.2 Delimitation and Scope of the Study

The study developed a friendly approach towards the elderly heads of the community and families to overcome the challenge of their kin boycotting to the survey. Further, the researcher committed herself to assuring the people of their privacy towards such issues that may subject their societal position to question.

On the format of the questions to respondent, the study formatted the questionnaires to solicit for information without infringing on the respondent’s principles and belief towards their traditions and customs that is under investigation.

The study addressed the privacy question by preparing the respondents before attempting answering the essential question. The researcher enlightened the respondents on the nature of the study since it adopted a cross-section survey approach.
1.9 Conceptual Framework

Many factors influence the epidemiology of breast cancer and its prevention which includes socio-demographic characteristics of women, lack of awareness on breast cancer, breast health and prevention and treatment, socio-cultural factors and measures put in place which in one way or the other favour or hinders the prevention of breast cancer.

![Conceptual Framework Diagram]

**Figure 1: Conceptual Framework**
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Most African cultures disease such as breast cancer strike without people’s knowledge, and when that happens many of them relate them to myths and beliefs. The disorders strike in discriminatively across ages and this triggered the medical professionals and the cancer advocacy groups to recommend regular mammograms to women as they approach forty years. The American Cancer Institute (2012), suggests that women above adolescence age should be educated indiscriminately on the benefits breast self-examination and their limitations.

According to Kingham, (2013) many African cultural factors have in many instances have stalled the timely access cancer care in Tanzania and other East African countries. Breast cancer patients living in rural suffer from inadequate disease and symptoms awareness levels. The disease causes stigmatization to patients, and they become afraid of medical processes like surgery or other chemo treatment (Brinton et al., 2014). Consequently, such patients seek medical attention when the disease is at the worst stage or when a cure is improbable. Many other patients could otherwise have received the treatment but in the process fail to complete the prescribed dosage (Longwood et al., 2016). The situations water down the commitments and eventually contribute to the high cancer mortality rates among Tanzanians.

Although there are variable interventions on the use of BSE, its importance, procedures for use in detecting breast cancer, women still have not shown high-level commitment in gaining awareness as highlighted by Allen et al., (2010). Breast self-examination is
the most common and available method for screening women in the rural women and can as well be availed to those living in extreme economic settings where advanced screening and diagnostic procedures are either absent or inaccessible because they are unaffordable and unavailable. It is, therefore, recommended that women be enlightened about breast health and asses the necessary procedures to detect any abnormality in their breasts efficiently.

2.2 The Theoretical framework

The study was guided by the Self-Care Deficit Theory proponed by Dorothea Orem in 2001 toward improving the quality of care given to patients in social setting and hospitals. The model inter-related concepts in a manner to create a different way of perceiving a particular phenomenon. The theory is relatively simple, but generalizably is applicable to a wide variety of settings. The theory is an appropriate framework which guides health professionals to achieve efficacy in the practice. The theory has significant influence on women to do self care and breast self examinations.

Self-care is defined as the set of practices in which a person engages in to promote positive personal development and well-being in times of good health and illness especially breast cancer. An individual’s mind-spirit-body connection, upbringing, moral and religious background, and life experiences that originate from faith, feelings and emotions form the basis of spiritual self-care. Self-care deficit theory demonstrates how women of reproductive age in the area should invest their time and resources building social support networks or engaging in personal developments. Women can freely engage in self-care activities such as attending inter-religious gatherings,
enjoying nature activities together and developing or mending personal relationships. Women can enhance their well-being and quality of life by participating in self-care activities.

**Figure 2: The theoretical framework for the study**

**2.3 Global Situation of the Breast Cancer Challenges**

Breast Cancer stands out as the most frequently occurring cancer in women around the world. The increased incidence, mortality, economic costs, area burden shared among women globally (Kingham, 2013). Breast cancer remains the most significant public
health issue in developed as well as developing countries (Kingsbury, 2012). Unfortunately, in spite of improved diagnostic skills and break-through ineffective treatment, breast cancer continues to lead in numbers of deaths among women worldwide. Statistics differ between countries and regions. The variations in the numerical occurrences, mortality and survival rates also vary from place to place (Coughlin & Ekwueme, 2009; World Health Organization, 2013). These deviations are related to the numerous factors such as health practices, socio-economic factors, and availability of care, and readiness to awareness of breast cancer.

In the United States of America, awareness of breast cancer care and programmes by women is relatively influenced by the screening rates in the screening centres as noted by Steinberger (2014) and Ko (2010). The greatest reasons as to why women fail to undertake breast self-examination included inadequate information about breast self-examination and how it works. Likewise, some women never showed interest at all about examining themselves while those who did never thought they could be at risk of getting the disease. Budden (2012) and Barton (2013) found that American women just like their African counterparts gave similar reasons for not engaging in the examination.

In Jordan, the population is composed mainly of young people under the age of 18 years who accounts for half the community. Breast cancer records the highest incidences of all cancer ailments in Jordan accounted for (36.7%), and is considered the leading cause of cancer deaths among Jordanian women and ranks number one among the five most common cancers affecting the people Jordan Breast Cancer Program (2009). At the time of diagnosis, Jordanian women also tend to present with advanced stages of breast
cancer. Stage III and IV cancer account for 70% of all breast cancer cases diagnosed in Jordan according to Jordan Breast Cancer Program (2009). The new trend of young Jordanian women between the ages of 30-39 breast cancer contracting breast cancer is troubling (KHCC, 2004). The average age of breast cancer for Jordanian women is 51 years as noted by Othman, Kivini, Wu & Lally, (2012) relative to most Middle East while the average age is 61 years for the women in the United States according to the US National Cancer Institute, (2010). However, it is relatively simple and cheap to conduct clinical breast examination, but its efficiency has not been directly tested towards reducing the mortality rates. Mammography scan is considered complicated and expensive but can develop cancerous tumours before they can be detected the available detection methods. Therefore, conducting early prognosis helps how cancer could be identified and managed by some other means (Aldridge, 2015). It is also proven that early detection and diagnosis increase survival chances irrespective of the detection method.

In Italy, women make up to over 30 million out of 59 million of the nation’s population. According to Cetingoz et al., (2012) many women were considered aware of prevalence, prevention and treatment of cancer. In addition, breast cancer is believed to be claiming approximately 11,000 lives every year which was equivalents to 18% of the total cancer mortality rate. The mortality rate recorded a further 20% decline in 2008 according to Ko et al., (2013). The trend project that by 2018 the percentages of deaths from breast cancer would have dropped to below 10%. The results complemented Oluwatosin and Oladepo, (2014) study findings that having the increased information of
breast cancer and its risk factors to women promoted prevention practices and eventually reduced significantly the number of deaths.

Early diagnosis can only be achieved through enlightening women on the importance of regular breast examination to identify any abnormality if any and equip one for further health professional interventions. Although mass screening campaign for breast cancer is already on course and is welcome for health promotion purposes by many, there is a shifted objective as women most in need not to find the necessary care (Faithful, 1994).

The screening campaigns are aimed at creating awareness about breast cancer in women; the target is majorly on poor and medically underserved and ethnic minority, who fail to participate in the mass screening.

Inadequate information on breast cancer could have resulted in women not practising breast self-examination (WHO, 2014). A similar result was obtained by Leslie (2003) that established that women had always shown inadequate levels of awareness as regards the disease. However, she recommended that mothers ought to be enlightened of the risks of disease, and therefore, women should be reached out to during the antenatal and postnatal clinic if possible and through other channels such as the electronic and print media.

According to Ko et al., (2013) women rely on health care professionals for information on breast self-awareness. However, this remains the only available source of information accessible to women in the extreme rural vicinity. According to Friedman et al. (2006), Ajayi & Adebamowo, (2009) and Jebbin and Adotey, (2010) together applauded the call for BSE awareness. This study sought to disagree with Ahuja and
Chakrabarti (2010) findings that information on breast problem is availed to a great extent by family and friends.

Women in the rural areas need to be well informed on this as the need for breast health despite the fact that mammography method of breast screening is unavailable in many rural areas. When they are informed about the disease, they can help in eliminating the apparent barriers towards participation in awareness campaigns and mass testing. The study argues that respondents screening practices is dependent on the level of breast education. It is also clear that the more the women are informed about breast cancer, the more the likely they are to participate in breast health practices. This argument corroborates with Maxwell et al., (2001) study.

2.4 Africa situation of breast cancer

Majority of breast cancer patients in Africa present themselves for examination at an advanced stage of the disease (Farmar et al., 2010). As a result, breast conservation surgery is often not an option and patients experience higher mortality rates (Farmar et al., 2010). Breast cancer mortality can most effectively be reduced via early detection and subsequent appropriate treatment options that are more readily possible through clinical medicine (Anderson & Jakesz, 2017). More so, advanced breast cancer requires more extensive utilization of resources; thus, efforts to identify cases early may also provide the most substantial benefit in terms of reducing cost (Wabinga, 2015). While the mastectomy rate is 30% in Europe, it is greater than 85% in some regions of Africa (Antoine et al., 2012). Although lack of screening, diagnostic capabilities, or social determinants may influence differences in breast cancer care among the African
population, one must question whether variations in genetics influence this distinct, aggressive presentation of breast cancer and its outcomes.

Early detection and treatment of breast cancer has been widely advocated as a strategy to mitigate breast cancer-related morbidity and mortality rates in developing countries (Fregene & Newman, 2015). Unfortunately, most patients in developing countries present to care with advanced-stage breast cancer (Sharma et al., 2012). Late presentation in these settings has been mainly associated with lower education levels and low-income status (Sharma et al., 2012). In addition distinguishing breast cancer at an early stage through signs or symptoms poses a great challenge to women and further complicates the efforts for timely uptake of breast cancer screening and treatment (Mena et al., 2014). This unfortunate situation is compounded by inadequate health system infrastructure that is needed to provide a full array of breast cancer prevention and treatment services (Saghir et al., 2011).

Egyptian women with early stage disease may be considered poor candidates for breast conservation because of high illiteracy rate and compounding cultural influences. These factors do not allow for regular surveillance of patients following breast conservation required to detect early recurrence in the remaining breast tissue (Salem et al., 2010). A recent review of breast cancer surgery in Africa showed that Malawi, Ghana, Rwanda and South Africa reported higher rates of lumpectomy (45, 40, 29 and 12% respectively) compared to single digit figures found in other countries (Langenhoven et al., 2016). This report may indicate improvement in down staging of tumors, access to care and breast cancer education. Malawi and Rwanda do not have radiotherapy
facilities, meaning patients will have to travel to neighboring countries for radiotherapy and would be of interest to know the follow-up data for these patients.

2.5 Tanzania Perspective of Breast Cancer

Tanzania is faced with acute shortage of qualified healthcare professionals is perhaps the most serious challenge to relative to comprehensive cancer care. According to WHO (2013) the ratio of doctors to patients in Tanzania, stands at 1:25,000 against the WHO’s recommendation of 1:600. The imbalance results in non-qualified health worker who lacks the expertise and experience in practice taking up roles of primary consultation to cancer patients. The World Bank of 2009 indicated that only 35 percent of the government staffing in the public health workers position were filled with qualified personnel in Tanzanian. In fact, trained doctors as radiologists, surgeons, and pathologists in the field of chemotherapy were scarce (Scheffler et al., 2008).

According to Chakrabarti, (2010) lack of confidence in performing breast examinations practices for the general public in Tanzania was influential towards the poor trend in women participation in the awareness campaigns. The National Breast Screening Programme in Tanzania is charged with the mandate to provide routine mammograms to women between ages 50 and 64 every three years. For women below the age of 50 and those above the stipulated age of 64 years were often left out during the screening programme. Chakrabarti, (2010), noted that breast awareness was considered most important in helping early detection and studying the changes in the women breast tissues. The organization recommends that women aged 20 and older should seek breast
examination every 3 years while women those 40 are recommended to do the same on a yearly basis.

2.6 Bahi Division Situation of Breast Cancer

According to the World Bank (2014) cultural factors hinder public health enlightenment programmes. This could perhaps be a significant factor influencing women’s health in Bahi county of Tanzania. The Gogo in Chigongwe are some of the key communities living in the area and are known to be polytheistic and cultural practitioners and they are also known to attribute most chronic diseases to witchcraft and curse from the ancestral spirits. Additionally, numerous cultural challenges faced by breast cancer patients in accessing mainstream healthcare services in rural communities. For instance, Ngoma et al., (2013) reported that women’s independence is very low in relation to their counterparts. In the event that either a woman or her children get unwell, authorization is sought from community elders or men of the family before attending a modern health facility. Although through time many women have understood their position and are championing them from one end to the other, cultural factors have demonstrated substantial impact on public health in these communities. The public health initiatives, such as breast cancer awareness, ensure that the structural factors are in place to ensure that the services are accessible to those in need of them. It also focuses on empowering individuals to become agents of change and becoming structural models, while structuring those agencies.

According to Anderson et al., (2008) breast cancer detection requires a dedicated resource base. The resources are broad-based as they include the development of
upright cultures and sensitive educational programs using the local dialects that target to enlighten the public on the importance of breast examination, tumour detection, cancer risks, and the overall awareness on breast health. The availability of awareness and the practical application of early detection are designed for their source limited communities. It is focused on ensuring that early signs and symptoms of the breast cancer disease are clinically examined, and timely referrals are done for effective diagnosis and treatment of the disease. There is limited documentation about general breast cancer awareness, prevention, and early detection practices among women in Tanzania. The baseline of awareness is essential to the development of culturally and a linguistically appropriate educational program that promotes understanding towards an evidence-based or lifestyle guided breast cancer prevention interventions, breast health awareness, examination and early treatment.

2.7 Trends of Breast Cancer among Women

Numerous studies from all over the world demonstrate an increasing trend breast cancer in both developing and developed states in menopausal women despite the varying rates in separate years (WHO, 2014; Ahuja and Chakkrabarti, 2010). This change is most significant in African women due to extensive changes in lifestyle (Amir, 1998). His study that evaluated women lifestyle in Africa noted that in the past women started the children bearing at a relatively younger age, they also gave birth to many children and they considered breastfeeding for quite longer than it is today. These practices are believed to have had an effect in reducing women related ailments. Therefore, it is
recommended that all women be made aware of all those breast complications and also helped to do the simple procedures that are important in detecting them.

Clinical examination of the breast is fairly cheap and simple, but its efficiency has not been directly tested towards reducing the mortality rates. Mammography scan is considered complex and expensive but has the ability to detect even small tumours long before they can be detected by the other means, therefore, enhancing better prognosis than how cancer is detected in some other means (Aldridge, 2005). Survival chances are proven to be increased by early detection and diagnosis irrespective of the method used for detection.

Despite the fact that the benefits of screening are well-known to a good number of women, particularly ones living in extreme poor areas, medically marginalized groups, fail to turn in numbers for screening programmes. High cost factors and lack of awareness about screening and fear of breast cancer shock are some of the factors linked to poor participation in screening exercises (Adam, 2010). Lack of confidence in performing the procedure is also cited as drivers of poor participation (Ahuja and Chakrabarti, 2010).

2.8 Influence of socio-cultural factors on the management of breast cancer

Foreign perceptions on the cultural beliefs and health related values differ greatly from those of the African community groups (Morris, 2001). According to Keusch et al. (2006) cultural beliefs and societal values are often identified as some of the important determinants in the whole process of prevention and control trends the community is
also responsible in the management of psychological and behavioral effect in the event of breast cancer diagnosis or treatment. The myth about cancer ailment is also very common in most African communities. Patients from those communities are often reluctant to undergo treatment because they believe in the traditions and myths. Other communities perceived cancer treatment an extremely ruthless and somehow view the diagnosis as worse than the disease itself.

According to United Republic of Tanzania National Bureau of Statistics Report, (2014) a culture consists of many belief which are shared and transmitted socially regarding the values carried over from generation to another. The socially transmitted phenomenon identify the people with their culture people and an aspect that bound them together to share common factors in the society on regular basis possess unwritten rules and criteria that bestowed individual’s identity as a group member. In the event of an illness the beliefs and values by the culture influences the perceptions regarding the unknown revelation to such an illness, the cultural prescription, and what the culture believes is the best method of prevention and management of the disease.

2.9 Breast Cancer Prevention

There is still a significant amount of work to be done especially on the prevention of breast cancer and on improvement the perception through which people become informed as regards the cancer disease. Awareness becomes a major intervention towards improving cancer care, prevention and control especially to women in the rural areas. The women in those extreme areas require to be guided into understanding the state of cancer as a complex disease. Campaigns through media coverage are aimed at
promoting activities and information that suppress the effect of cancer related stigma on the people by encouraging them to participate in screening and pursue early detection, seek recommended treatment options provided by the government in the prevention and control measures, funding dedicated of new cancer related studies, and activism. Media exposure on myths surrounding the cancer disease is a good way to break the existing misconceptions that always pose as hindrance to the health care.

Breast cancer awareness can as well be done through the media, government, and non-government organizations. These channels ensure that awareness the campaigns effectively done are in local languages (Somdatta et al., 2008). To reduce the risk of breast cancer awareness should be created about breast feeding and its protective effects imparted on them. Khokhar, (2009) recommends that superstars are preferred to promote the awareness and their involvement strengthen the awareness exercise. The cancer related curriculum in medical schools also a need to strengthen to focus more on breast awareness campaigns and screening methods available. Mismanagement of cancer patients at primary and secondary facilities is a critical duty by the breast lump protocols made management according to (WHO, 2010).

In a recent research conducted on breast cancer prevention showed that in United States alone slightly above 234,000 new cases are diagnosed every year in an endeavors to increase awareness and care on the patients as it reverberate well with care providers and patients alike (American Cancer Society, 2013). The anticipation to reverse the trend has gotten far less consideration but still holds huge promise of the essential prevention action procedures that have been distinguished so far, includes upkeep of a
right body weight, normal physical activities, and control of alcohol consumption, and chemoprevention which is a system that has an extensive impact in high-chance women and is right now underused. Scholars likewise talk about the extra advantage that could be gotten by growing anticipation endeavors to incorporate young women, taking note that nearly 22% of cases are analyzed before age 50 years in the US (American Cancer Society, 2013).

In addition, studies have shown that breast cancer in women is increased by alcohol intake and the risk could be felt even in light consumption as highlighted by (Amir, 1998) and (Smeltzer, 2012). Their studies further suggested that breast cancer risk is increased by smoking and that the risk is even greater when they begin to smoke early in their life. On account of breast cancer, the presence of a huge body size at the youthful age lessens the danger of attack. After menopause, the process of fat transformation from androgens to estrogens results to an increase in estrogen levels thereby increases risk due to accumulation of fat (Baer, et al., 2010). An imperative message for women in midlife, suggest that change one’s behavior and conducts minimizes the danger of breast cancer significantly. Managing own weight in aging women years is a top curative action priority according to (Eliassen et al., 2006).

According to Wu, Zhang & Kang (2013), the most energetic Woman had a 25% diminishment in hazard in respect to the minimum dynamic women. Physical excises at every phase of life from young age ahead gives an advantage, yet supported action all through life may give the best benefit (Baer et al., 2010. In the Nurses’ Health Study II course, for instance, it is not obvious that active women between ages 12-22 years and
those transiting to adulthood who used premenopausal factors reduced the risk of breast cancer as highlighted by (Ronksley et al., 2011; and Maruti et al., 2008).

Mixed refreshment consumption are some of the beverages believed to increase chances of breast cancer, among many other diseases in women. According to IARC (2010) for the situation of breast cancer, consumption of alcohol increases by 10-g-per-day. The increased consumptions may raise 7% to 10% exposing them to danger of breast cancer and other diseases (Chen et al. 2011). Indeed, even low levels of alcohol consumption unremarkably increment chance. The probability of attack for regular consumers of three to six drinks every week was 15% more than women who never drank. Women with high alcohol consumption trend of more than two drinks daily were more susceptible by 51% than those who never consumed (Key, et al. 2003).

According to Ronksley et al., (2011) the alcoholism habits controls the women who had been taking alcohol from the age of 12 years as confirmed by studies that shows significantly positive results. Women, who complied with the American Cancer Society recommendation for weight, keeping off alcohol consumption habits and engaging in regular physical activity, reduced the risk of attack of breast cancer by 22% (American Cancer Society, 2013).

Kakarala et al., (2010) explained that, breast cancer prevention begins with lifestyle choices that reduce modifiable risks that affect the body’s overall estrogen burden, including decreasing the exposure to and production of harmful estrogens, enhancing metabolism and elimination of estrogens through detoxification, reducing inflammation, and enhancing immune function. This study was supported with that conducted by
Kingsbury, (2012) who conducted a research on the changing face of breast cancer and suggested that eating foods that enhance detoxification, including those in the alliums family (such as onions, leeks, garlic, and chives), methionine-rich foods like eggs, sesame seeds, Brazil nuts, fish, meats, and some other plant seeds; and foods that boost glutathione levels, such as avocado, asparagus, broccoli, garlic, spinach, tomatoes, and turmeric hence preventing breast cancer.

2.10 Research Gap

Prior studies in urban setting in Tanzania have assessed knowledge and practice clinical breast examination among health providers but there is little known about the awareness levels and socio-cultural practices at the community level on prevention and treatment practices of breast cancer. It is also not clear what health interventions are in place in the community by the government and other stakeholders in health to promote the awareness campaigns on breast cancer in the mixed urban-rural communities living in Bahi area. Women residing in rural areas have difficulty accessing awareness forums, experience socio-cultural effects and eventually fail to understand what is going on with regard to accessing breast health services. Moreover, the burden and patterns of breast disease in Tanzania remain unquantified due to a lack of data and policies. To address this gap informed approaches to awareness of breast cancer, freedom from socio-cultural burdens and strategic measures that address the gap should be established.
CHAPTER THREE: MATERIALS AND METHODS

3.1 Introduction

In this section the study sought to elaborate the procedure to be adopted in the study. It also presented the design and the structures used in the study. In this chapter, the study demonstrated how the data was solicited and in steps demonstrated the methods used in the clustering of data sources, sampling of the respondents from the identified clusters and questionnaires administration and collection process. The study methodology and the research design guided the study on the application of laid down procedures that was used to cluster the study target area, obtaining the sample sizes accordingly, application of research instruments, obtain the necessary data, analyze that data to reasonable information, in consideration to logistical and ethical issues.

3.2 Research Design

The study employed cross-sectional analytical survey design since this study was carried out in designated community centers to collect and analyze the data. Both qualitative and quantitative approaches were used. Primary data was collected.

The primary data was collected using research questionnaires and interview guides as the research instruments whereby the community was clustered into health community units and also purposive sampling was employed so as to reach out to the most informed within those clusters. Simple random technique was also applied to normalize the distribution of the questionnaires.
3.3 Research Variable

3.3.1 Independent Variables
The independent variables of the study include the socio-demographic characteristics of the respondents, awareness of breast cancer factors, readiness and utilization of available information by women so that they can become aware of what to do as well as learn how to prevent it. Socio-cultural factors which include the attitude towards the myths as source of the disease the treatment and the measures put in place to prevent and treat breast cancer.

3.3.2 Intervening Variables
Health promotion intervention by the government, NGOs & FBO campaigns against the spread of breast cancer.

3.3.3 Dependent Variable
Breast cancer, prevention and treatment practices

3.4 Study Location
This study was conducted in Bahi District in Tanzania. Bahi District is the second order administrative division located in Dodoma Region in Tanzania. The estimate terrain elevation above the sea level is 834 meters, Latitude -5.58’59.95”, Longitude 35.190.01”. According to the Census in 2012, Bahi District has a total population of 221,645 people. This site was chosen because the study area had reported many cases of breast cancer and also cultural diversity than other districts in Dodoma region that could influence community reactions (National Bureau of Statistics, 2012).
3.5 Target Populations

In Bahi Division, 102,999 women fall under the age of reproductive age group representing 31% of the entire population in the area (MOH, 2010). This study specifically target women of the reproductive age (15-49) and Community Health Workers in community health mechanism strategy at level one in four community units in Bahi area. The CHEWs and Reproductive Health Coordinator was interviewed on health promotion and number of referrals they have done for breast cancer counselling and treatment among the Bahi community.

3.5.1 Inclusion Criteria

The study included all women between the age of 15 and 49 years who met the required qualities for the study. The researcher did not lock out individuals from participating in the research on the basis of attributes such as disability, culture, language, religion, sexual orientation or ethnicity unless there was a valid reason for their exclusion.

3.5.2 Exclusion

According to Burchardt (2012), an individual should be excluded in a research study if he or she is suffering from mental instability and is unable to make sound decisions, also if such a person is excluded from participating in normal societal activities due to depression or bedridden. To ensure that the study was accurate and not bias on the exclusion criteria, the study required the respondent to read through the consent form availed to them before the filling of the research questionnaire. On the consent form, the respondents were required to declare their sound understanding to the study as well as confirm their readiness to participate.
3.6 Sampling Techniques

The study obtained the last census data of Bahi population from the TNBS. The study clustered the area into four community units. Both random and purposive sampling methods were used to recruit respondents. Random sampling was done based on the cluster population as shown in table 1.

Table 1: Sample Size Proportionate to Clustered Community Units

<table>
<thead>
<tr>
<th>Community Units</th>
<th>Population</th>
<th>Percentage (%)</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahi Sokoni</td>
<td>3,267</td>
<td>34</td>
<td>126</td>
</tr>
<tr>
<td>Mpamantwa</td>
<td>2,620</td>
<td>27</td>
<td>101</td>
</tr>
<tr>
<td>Kigwe</td>
<td>2,084</td>
<td>22</td>
<td>80</td>
</tr>
<tr>
<td>Ibihwa</td>
<td>1,629</td>
<td>17</td>
<td>63</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9,600</strong></td>
<td><strong>100</strong></td>
<td><strong>370</strong></td>
</tr>
</tbody>
</table>

3.7 Sample Size

The sample size is relative to the study area and total population. In this case, therefore, the sample size was determined by Fisher et al., (1991) statistical formula for the calculation of the size sample which is given by \( N = \frac{Z^2 pq}{d^2} \) when the population is less than 10000.

In the case of this study, the total population is about 9600 women in four community units. Since the number was less than 10,000 people, the Fisher’s method of sampling was applicable.
N= was the minimum acceptable size of the sample for any statistically momentous survey.

Z= was the standard deviation at 95% of the portion.

The confidence interval is given as = 100 (1-N). This would mean if the same population size was sampled the likelihood of the same result is 95%.

D= represents error margin acceptable as a measure of precision and which is normally 0.05

\[ 1.96^2 \times (0.5 \times 0.5) / 0.05^2 = 384 \]

Since the number is less than 10,000 people Yamen method was applicable

Therefore,

\[ N_f = n / (1 + n / N) \]

Where;

\( n_f \) = represent the sample size when the population \( N < 10,000 \)

\( n \) = represent the sample size when the population \( N > 10,000 \)

In this case therefore;

\( N = \) Bahi’s estimated population size is = 96000

Therefore;

\[ N_F = n / (1 + n / N) \]
NF = $\frac{384}{1 + \left(\frac{384}{96000}\right)} = 369.2307692 = 370$ respondents.

370 was the estimated sample size.

### 3.8 Research instruments

To provide for data collection, the study includes various instruments and tools to effectively draw raw data from the clustered study area ahead of the analysis and presentation. Questionnaires, focus group guides and KII was used as the most appropriate method of gathering the raw data. The questionnaire is structured to contain a 5 point Likert evaluation scale itemized in simple open and closed-ended questions. The questionnaire is specially structured for the purposes of soliciting data from the respondent about their opinion on issues surrounding the breast cancer prevention and treatment.

The questionnaires to the general women of reproductive age used closed-ended questions well framed on a Likert scale in order to facilitate consistency of certain data across the respondents. A separate set of the questionnaire was used to solicit data from Community Health Workers and Focus groups.

The instruments were constructed based on the research questions and objectives of the study. The KII guides were used to collect data from CHEWs, reproduction health coordinator and NGOs representative working under community health strategy at level one (cohort one) in all four community units Bahi area.
3.8 Pre-Testing

A pilot study was conducted prior to the main study in order to develop or test the efficacy of instruments and protocols. This was done at Mundemu division in Bahi District because women from Mundemu Division share similar characteristics in terms of traditional and cultural beliefs like women of Bahi Division (MOH, 2010). The intention of the reconnaissance is to adequately gauge the data collection tools to ensure that they are accurate measurements of the intended variable. Validity check on the instruments was done to ensure that they consistently measured the study variables (reliability).

3.8.1 Validity

The validity of the qualitative procedure was used during the pre-testing to establish the accuracy of the selected instrument, correctness in eliciting important data needed for the study. Validating the instruments for the study before the actual study is an important task according to Kasomo, (2006). To ensure total accuracy of the instruments the researcher may seek assistance where applicable from the supervisors and researcher expert of the same field to ensure that the data is not ambiguous, confusing and poorly prepared.

3.8.2 Instruments Reliability

The split-half method was used to establish the reliability index of the instruments during the pre-testing. The two sets of questionnaires was rolled out in Mundemu Division in Bahi District so as to test the reliance and also familiarize with the challenges for better equipment. The study conducted a reconnaissance visit at Mundemu area and undertook a random sample of two community health workers and 20 women of reproductive age as in
the requirements of the study. The process of split-half was undertaken rolled out the established instruments in order to acquire data. The half-split items were sets into odds and even number so that a balance in the setting of the questionnaire is struck. Through balancing of questionnaire items, correlation and comparison are calculated. The Pearson’s Correlation coefficient is used to compare and correlate the two identified sets of scores. However, the reliability of the instruments for data collection was established during the reconnaissance visit by examination the consistency of the response by respondents.

3.9 Data Collection Procedure

The study endorsement permit was secured from the Higher Education, Science and Technology Ministry of the United Republic of Tanzania and a copy submitted to the District Health Director, Bahi Division, and Tanzania. The researcher intends to pre-visit the mapped study area with a view to establishing a healthy relationship with residents. Relevant authorization to facilitate the study was secured prior to administering of the study instruments to the respondent. The questionnaires were administered by the researcher during the period of data collection. Data collection was scheduled to take approximately two weeks after which the researcher collected the duly completed questionnaires from the respondents to usher in another important step of analyzing the data.

3.10 Data Analysis

Descriptive statistical methods for analyzing data was used. Statistical tests was preferred for the study as it helped to obtain statistical means, percentages, variance and chi-test for various relationships. However, inorder to obtain statistical outcomes, the likert data obtained from the respondents was converted to nominal data by use of
Cronbach’s alpha reliability formula. Data was then sorted, grouped together, program coded and keyed in the SPSS software. The data was further computed appropriately according to specific themes as per the study objectives in order to visualize the general trend of the study findings. Findings was presented using frequency tables and bar graphs. All the statistical tests and calculations were done by the help of SPSS software program version 23.

3.11 Ethical Considerations

Approval was secured from the Kenyatta University’s Ethics Review Committee and also the authority to conduct study was rightfully sought from the government of Tanzania through the Ministry and the Local Authority in Bahi District as well as Ministry of Health Tanzania through the District Medical Officer. All eligible respondents were informed of the design of the study and were provided with written consent.
CHAPTER FOUR: RESULTS

4.1 Introduction

This chapter presents the findings and observations of the study in respect to the outlined objectives, research questions and hypotheses. It provides fairly analysed information from the filled in questionnaires. The results from the study relayed through this chapter together with their accompanying discussions of what the results imply following study objectives and as stressed using research questions. The study result presentation was logically sequenced by how objectives and research questions had been stated.

4.2 Response Rate

The sample size for the study was 370 taking into consideration the population composition of members of the four community health units of Bahi division. In this study 370 questionnaires were administered to the respondents, at the close of the exercise a total of 361 questionnaires were answered and returned successively recording a 97.6% return rate which was within the recommended rage of 60% to 100%. However, the study observed that out of the filled and returned questionnaires, there were instances in which the respondents deliberately or otherwise skipped some questions. The study assumed that the respondents did not have an immediate answer to the questions.

4.3 Socio-Demographic Characteristic of the Respondents

The study sampled its respondents from the four community health units of Bahi division. The sample population possess a diverse characteristic and uniqueness. The
study sought to understand, tabulate and present a summary of all the characteristics in this section.

4.3.1 Respondents Distribution by Division of Residence

The study sampled the respondents from Bahi division within the larger Bahi district based on the population sizes of the four community health units in the division. The four community health units identified for the study are Bahi Sokoni, Ibihwa, Mpamantwa, and Kigwe. The respondents were grouped by the divisions of residence as shown in figure 2.

![Response by Division of Residence](image)

**Figure 3: Residence of the Respondents**

The study noted that 34.1% (123) of the respondents were sampled from the four community health units namely Bahi Sokoni division, 27.1% (98) were from Ibihwa, 21.9% (79) were from Mpamantwa while 16.9% (61) of the respondents hailed from Kigwe division.
4.3.2 Distribution of Respondents by Socio-Demographic Characteristics

The study was determined to understand the distribution of the respondents by their ages. The results were tabulated as shown in table 2.

Table 2: Socio-Demographic Characteristics of the Respondents

<table>
<thead>
<tr>
<th>Respondents’ Age (n=344)</th>
<th>Frequency (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 – 20</td>
<td>111</td>
<td>32.3</td>
</tr>
<tr>
<td>21 – 25</td>
<td>67</td>
<td>19.5</td>
</tr>
<tr>
<td>26 – 30</td>
<td>40</td>
<td>11.6</td>
</tr>
<tr>
<td>31 – 35</td>
<td>53</td>
<td>15.4</td>
</tr>
<tr>
<td>36 – 40</td>
<td>22</td>
<td>6.4</td>
</tr>
<tr>
<td>41 – 45</td>
<td>51</td>
<td>14.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education Level (n=347)</th>
<th>Frequency (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Education/Others</td>
<td>72</td>
<td>20.7</td>
</tr>
<tr>
<td>Primary Level</td>
<td>222</td>
<td>64.0</td>
</tr>
<tr>
<td>Secondary Level</td>
<td>50</td>
<td>14.4</td>
</tr>
<tr>
<td>Tertiary/University Level</td>
<td>3</td>
<td>0.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Religion (n=300)</th>
<th>Frequency (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christianity</td>
<td>117</td>
<td>39.0</td>
</tr>
<tr>
<td>Islam</td>
<td>81</td>
<td>27.0</td>
</tr>
<tr>
<td>Traditional Religious Beliefs</td>
<td>77</td>
<td>25.7</td>
</tr>
<tr>
<td>Others</td>
<td>25</td>
<td>8.3</td>
</tr>
</tbody>
</table>

The study noted that a most of the respondents 32.3% (111) were aged between 15 and 20 years. It was also noted that 19.5% (67) of the respondents were aged between 21 and 25 years while only 6.4% (22) were aged between 36 and 40 years. The study observed that 4.9% (17) of the respondents did not provide an answer to the question.

4.3.3 Distribution of the Respondents by the Level of Education

The study sought to determine the distribution of the respondents based on the levels of education. The study observed that a majority 64% (222) of the respondents had a
primary level of education while a mere 0.9% (3) of the respondents had either college or university education. Only 14.4% (50) of the respondents had attained the secondary level of education. The study equally observed that 4% (14) opted not to answer that question.

The study sought to determine the distribution of respondents by religious affiliations. The researcher noted that 39% (117) of the respondents were Christians while 27% (81) subscribed to the Islamic religion. Only 25.7% (77) of the respondents said that they practiced traditional African religions while 8.3% (25) had other religious beliefs which were not captured in the questionnaires. The study noted that there was no representation of the Hindu religion in the sampled population.

4.4 Presence of breast cancer awareness programmes in the area

The study endeavoured to explore the community level of awareness with regards to breast cancer prevention and treatment. The study noted that a significant number of the respondents 51% (184) were aware of breast cancer, understood some factors surrounding the causes and were aware of the screening services provided to the people. Equally, the study noted that a significant number of respondents 28.5% (103) were not aware of the disease, its signs or what to do.

4.4.1 Awareness and practice of breast self examination

Awareness of breast self screening as an early detection intervention revealed that 61.1% (171) of the respondents had heard and were aware of BSE while only 7.5% (21) had never heard of BSE. The study noted that out of 191 respondents who indicated that they were aware of either clinical breast examination or self breast examination, only
118 knew of CBE while 171 had awareness of breast self examination. The study learnt that of the 171 respondents who knew of breast self examination only 23.9% (41) practiced it. A majority 76.1% (130) despite having the awareness did not take any initiative to do breast self examination.

![Awareness and practice of breast self examination](chart.png)

**Figure 4: Showing the awareness and practice of breast self examination**

**Table 3: Analysis of the levels of awareness among women**

<table>
<thead>
<tr>
<th>Awareness of BC</th>
<th>Responses (n)</th>
<th>Aware</th>
<th>Not sure</th>
<th>Not aware</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aware of breast cancer disease</td>
<td>353</td>
<td>184 (52%)</td>
<td>74 (21%)</td>
<td>103 (29.1%)</td>
<td>3.06</td>
<td>1.051</td>
</tr>
<tr>
<td>Aware of the BC causes</td>
<td>300</td>
<td>37 (12.3%)</td>
<td>116 (38.7%)</td>
<td>147 (49%)</td>
<td>3.20</td>
<td>1.041</td>
</tr>
<tr>
<td>Aware of either CBE or BSE screening services</td>
<td>280</td>
<td>191 (68.2%)</td>
<td>33 (11.8%)</td>
<td>56 (20%)</td>
<td>2.96</td>
<td>1.043</td>
</tr>
<tr>
<td>Aware of any BC functional cure</td>
<td>268</td>
<td>136 (50.7%)</td>
<td>44 (16.4%)</td>
<td>88 (32.8%)</td>
<td>3.16</td>
<td>1.112</td>
</tr>
<tr>
<td>Awareness to BC preventive and managerial procedures</td>
<td>353</td>
<td>167 (47.3%)</td>
<td>95 (26.9%)</td>
<td>91 (25.8%)</td>
<td>3.16</td>
<td>1.064</td>
</tr>
</tbody>
</table>
The researcher noted that of the 353 respondents who responded to awareness question 52% (184) were aware of breast cancer disease and its manifestation while only 21% (74) were not aware at all about breast cancer. The study was determined to find out if women in the area were aware of breast cancer causes. The study learned that 300 respondents answered the question. The researcher noted that of the 300 responses, only 12.3% (37) were aware of at least one perceived cause of the breast cancer disease. The study noted that majority of them 49% (147) were not aware of any cause.

On the issue of whether women were aware of clinical breast examination or breast self examination, the study noted that out of 280 respondents who contributed to the question, 68.2% (191) were aware of either BSE or CBE. The study also determined that only 20% (56) of the respondents were not aware of any kind of breast examination whatsoever.

The study further sought to determine what motivation factors helped women in the area to regularly do breast examination and the study learnt that of the 67 women who practiced breast examination, 14 understood the procedure as a simple one, 11 cited availability of instructional sheet 19 cited attendances to awareness program. The researcher also sought to determine factors that deterred women from doing breast examination and the study learned that women always forgot to do the examination and sometimes felt they are usually too busy. About 39% of the respondents indicated that that nothing at all prevented them from doing breast examination yet they had not done it.

The researcher noted that out of the 268 respondents who responded to the question on awareness of any known functional cure, the study learned that 50.7% (136) were aware
of traditional methods of curing complex ailments while only 32.8% (88) of the respondents were not aware of any functional cure to complex diseases like breast cancer.

The researcher sought to determine if there were any breast cancer prevention and managerial procedure and whether women in the area were aware of them. The study noted that 47.3% (167) of the respondents were aware of some prevention and managerial programs targeting breast cancer disease. However, 25.8% (91) of the respondents were never aware of such programs in the area.

The study essentially adopted a psychometric approach to analyze responses from the Likert scale data obtained. The study endeavored to highlight the statistical interpretation by measuring the internal consistency of the items in all indexes using the Cronbach Alpha reliability formula. The formula was constructed with the assumption that all the indicators in a composite index are effects of a unique thing. Any correlations among the indicators are assumed to be the result of their connections to that unique thing in terms of concept, construct or phenomenon of some sort. The reliability statistics below indicate an alpha index obtained from internal consistency test using Cronbach Alpha reliability formula.

**Table 4: Reliability Statistics for awareness of breast cancer objective**

The study further analyzed the sources of awareness so as to understand the effectiveness of the approach put in place. Among the awareness programmes fronted to ensure all residents are made aware of breast cancer prevention and treatment campaigns, included the local community engagement programmes, seminars and barazas, school attendance alongside others which include the media and so forth.
Table 5: Distribution of Respondents by Source of Awareness Program Rolled Out

<table>
<thead>
<tr>
<th>Presence of awareness programmes by where;</th>
<th>Using One Sample Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X-Value</td>
</tr>
<tr>
<td>Local community level</td>
<td>18.176</td>
</tr>
<tr>
<td>Seminars and Barazas</td>
<td>62 (17.2%)</td>
</tr>
<tr>
<td>Schools</td>
<td>68 (18.8%)</td>
</tr>
<tr>
<td>Others (Media)</td>
<td>35 (9.7%)</td>
</tr>
</tbody>
</table>

A mean of 2.543 and a standard deviation of 0.985 at a confidence level of 95% were obtained for respondents who had awareness of the breast cancer. Nineteen percent of the respondents learnt about it at school, 17.2% learnt about it in seminars and barazas organized by the area administrators while those who heard about it through local community programs accounted for 27.1%. Others learnt about breast cancer from other avenues which included the media and others which accounted for 9.7%.

The study sought to assess the awareness about the causes of breast cancer in women by asking the respondents to indicate what they felt were the causes of the disease. The findings revealed that a majority of the respondents had no idea of the cause with a mean of 3.06 signifying a huge gap in awareness of the disease and intervention programs. Some of the respondents acknowledged that use of industrial chemical while 13.9% argued that the disease is inherited genetically. However, there was a portion of the respondents who highlighted exposure to radiation 9% while 5% of them said that dark clothes did.

The study sought to inquire from women whether breast cancer was curable, and the responses were captured and recorded. The study observed 65.4% were unsure whether breast cancer is curable or otherwise. The study revealed that only 10% of the
respondents were in agreement that breast cancer is curable while 24.7% of the respondents held a contrary position that cancer is incurable.

On whether women were aware of the ways and means of preventing themselves from the life-threatening disease, respondents demonstrated varying responses to the question. A majority 60.5% indicated that they did not know of any way into which the disease could be prevented. It was observed that 9.2% recommended that putting on clothes that are reflective and bright enough reduced the penetration of radio waves which were harmful while an 8.8% agreed that eating chemical-free foods would prevent one from contracting the disease. Another 8.2% of the respondents were of the opinion that community practices helped people know what to do when they fell sick.

4.5 Socio-cultural factors contributing to prevention and treatment of BC

Table 6: Socio-cultural practices on prevention and treatment of Breast Cancer

<table>
<thead>
<tr>
<th>Influence of socio-cultural factors on prevention and treatment of BC</th>
<th>Responses (n)</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>socio-cultural practices are widely practiced in Bahi</td>
<td>326</td>
<td>162</td>
<td>61</td>
<td>103</td>
<td>2.30</td>
<td>1.054</td>
</tr>
<tr>
<td>The community consults the traditional herbsmen when ill</td>
<td>319</td>
<td>162</td>
<td>91</td>
<td>66</td>
<td>2.25</td>
<td>0.996</td>
</tr>
<tr>
<td>The community perceive BC as a curse</td>
<td>330</td>
<td>153</td>
<td>74</td>
<td>103</td>
<td>2.30</td>
<td>1.101</td>
</tr>
<tr>
<td>traditional herbsmen provide cure to BC patients</td>
<td>326</td>
<td>86</td>
<td>124</td>
<td>116</td>
<td>2.95</td>
<td>1.245</td>
</tr>
<tr>
<td>traditional cure is effective on prevention and treatment of BC</td>
<td>360</td>
<td>107</td>
<td>108</td>
<td>145</td>
<td>2.96</td>
<td>1.364</td>
</tr>
<tr>
<td>Association of breast cancer to witchcraft by the residents</td>
<td>361</td>
<td>236</td>
<td>65</td>
<td>60</td>
<td>2.55</td>
<td>1.247</td>
</tr>
</tbody>
</table>
Table 7: Reliability Statistics for Effects of traditional beliefs and cultural practices

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>Cronbach's Alpha Based on Standardized Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.831</td>
<td>.831</td>
<td>6</td>
</tr>
</tbody>
</table>

The study sought after the association between breast cancer and witchcraft by the residents and it was noted that there was a significant number 65.4% (236) of respondents who were in agreement that some residents associated breast cancer with witchcraft and family curses. It was also noted that only 16.6% (60) of the respondents did not agree with the association.

On whether treatment provided by the traditional herbsmen helped breast cancer patients in managing its spread and treatment; the study sought the respondent’s opinion, and the findings showed that 40.3% (145) of the respondents disagreed while only 29.7% (107) of the respondents were in agreement. It was noted that a significant fraction 30.7% (108) of the respondents were not sure whether traditional cultural practices offered any solution to the cancer patients in treating and managing the disease.

The study sought to assess the respondents view on whether the treatment offered to breast cancer patients was the best or not. A majority 35.2% (116) of the respondents expressed a strong disagreement in the nature of treatment offered by the traditional and cultural practices as not the best. However, a small fraction of them demonstrated their agreement to that kind of treatment as the best. However, the study noted that there was a significant size of the respondents 38% (124) who were unsure of whether the
treatment was good or not. It was observed that although there was a big number who agreed that there exist traditional methods of managing such ailments, a significant fraction of them did not agree with the treatment as the best.

The study further sought to assess the effect of traditional and cultural practices in the overall management of breast cancer in the District. The study noted that such practices had a negative effect on the management expedition of breast cancer in the district. A majority of the respondents 46.4% (153) were in agreement that such practices affected the breast cancer management interventions to a significant degree. The study noted that only 31.2% (103) of the respondents were of the view that such practices did not affect the efforts of managing and fighting breast cancer in Bahi division.

4.7 Preventive and treatment measures put in place

The quest to understand the interventions by various groups to educate the public on issues of breast cancer, the study noted that 52.7% (186) of the respondents affirmed that there were health interventions put in place in the area to improve on prevention and treatment of breast cancer. However, 22.9% (81) of the respondents disagreed that there was presence of such programs. The study learned that 24.4% (86) were unsure of presence of such programs.
Table 8: Health promotion and interventions put in place

<table>
<thead>
<tr>
<th>Health interventions put in place for prevention and treatment of BC.</th>
<th>Responses (N)</th>
<th>Agree</th>
<th>Not Sure</th>
<th>Disagree</th>
<th>Mean</th>
<th>Std. dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there measures put in place to aide prevention and treatment of BC.</td>
<td>353</td>
<td>186 (52.7%)</td>
<td>86 (24.4%)</td>
<td>81 (22.9%)</td>
<td>2.50</td>
<td>1.162</td>
</tr>
<tr>
<td>Presence of Community health workers</td>
<td>300</td>
<td>153 (51%)</td>
<td>115 (38.3%)</td>
<td>32 (10.7%)</td>
<td>2.50</td>
<td>1.118</td>
</tr>
<tr>
<td>Health workers held forums to educate women on matters BC</td>
<td>280</td>
<td>45 (16.1%)</td>
<td>91 (32.5%)</td>
<td>144 (51.4%)</td>
<td>2.90</td>
<td>1.301</td>
</tr>
<tr>
<td>Availability and accessibility of medical centers in the area.</td>
<td>268</td>
<td>182 (67.9%)</td>
<td>24 (9%)</td>
<td>62 (23.1%)</td>
<td>3.0</td>
<td>1.097</td>
</tr>
<tr>
<td>Residents faith in the measures put in place</td>
<td>353</td>
<td>187 (53%)</td>
<td>56 (15.9%)</td>
<td>110 (31.2%)</td>
<td>2.89</td>
<td>1.225</td>
</tr>
</tbody>
</table>

Table 9: Reliability Statistics for the Measures and Intervention put in place

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>Cronbach's Alpha Based on Standardized Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.941</td>
<td>.103</td>
<td>5</td>
</tr>
</tbody>
</table>

On the question, whether there were health workers in the community to inform the patients and support them in managing the disease and the social trauma that faces the patients; the study sought the respondent’s opinion on that issue. The study observed that a majority of the respondents 38.3% (115) said that health workers were present in the area. The researcher noted that 10.7% (32) reported absence of community health workers in the area to educate women about breast health and lead breast cancer
awareness. However, there was a significant fraction of the respondents 51% (153) were unsure of the status.

The respondents were asked whether health workers in the area held forums to educate women on breast health; the study observed that only 16.1% (45) of the respondents affirmed that they did while a majority 51.4% (144) held the contrary decision that health workers did not hold any forum in the community to educate women on matters of breast health. However, a significant fraction of the respondents 32.5% (91) was not sure whether there were such health workers enlightening women about breast health and breast cancer awareness.

The study sought to assess the presence of medical centers within the study area which were set up to provide breast cancer care to patients; the study learned that 67.9% (182) of the respondents were aware of the screening and management centers where cancer care could be found. The study observed that 23.1% (62) of the respondents were not sure of the setting up of such centers. The study further noted that 9% (24) of the residents were unsure of whether there were any medical center set to deal with breast cancer.

The study sought to assess if the respondents had faith in the measures and interventions put in place to prevent the rise of breast cancer cases in the district. The study revealed that 53% (187) of the respondents had faith in the efforts to fight the rising cases of breast cancer in the region. It was also noted that 31.2% (110) did not have faith in the efforts to bring down the rising breast cancer statistics. The study further observed that 15.9% (56) of the respondents did not have any immediate answer as they were unsure of whether the efforts would yield the expectations.
CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter provides summarized discussions, conclusions and the recommendations of the entire study. It also presents study recommends areas that require further studies based on the scope, objectives, and findings of this study.

5.2 Discussion

The study sought after the levels of awareness about breast cancer in Bahi District, the traditional and cultural influencing behaviors as well as prevention and treatment interventions by the stakeholders in the region. The findings of the study revealed that a significant population of women in the district does not have sufficient information about breast cancer. The study made an observation that breast cancer education is mostly provided in major health centers and clinics. However, the study noted that a majority of women are affected by some factors with regard to access, assimilation, and application of health information n.

5.2.1 The Level of Breast Cancer Awareness in Bahi

The study noted that a significant number 51% woman had awareness of breast cancer while about 20.5% of the respondents didn’t have any idea about the disease. The study noted that a significant proportion of respondents 68.2% were aware of breast cancer screening either at the clinic or by BSE. The study observed that a significant number respondents between ages 15 and 30 were most informed about the disease. This was attributed to the levels of education where most of the women with a level of education beyond primary school level were mostly those in the age bracket of 15 to 30 years.
Although a significant number of respondents were aware of both the disease and health facilities where screening and management were availed, none of the respondents had ever attended a breast screening center for screening service. The study sought after the reason for the screening attendance failure, and the study noted that lack of support from the household heads was a major stumbling block barring them from accessing the critical test. A significant number of respondents indicated that men cling to the fear that their women could be introduced to family planning without their knowledge.

The study further revealed that although the government had embarked on creating public awareness through various means, to a good extent they campaigns were not successful. Local community education programs on breast cancer were being conducted at the major health centers in the district, and that very few women visited such centers. Other campaigns ran through the media were equally ineffective. This is because a significant population did not access to a media channel such as television set or radio while some with radios at some point failed to have reliable power source due to inability to afford. However, there was a significant population that had access to reliable sources of information as well as the social media. This was noted as some women admitted to having obtained information about breast cancer from other sources such as television and through the internet.

The study observed that inadequate awareness about the disease halted its early detection. However, the study noted that few women understood breast cancer symptoms and a significant population hardly understood what it was. The study disagrees with Sambanje & Mafuvadze, (2012) whose findings found that breast cancer awareness among the University students in Angola was generally very low but instead
concurred with Morse et al., (2014) study that found 98.2% of the 225 respondents sampled for the study in Dar es Salaam, Tanzania were aware of breast cancer while only 0.9% had regular clinical examination. Although screening was apparently available in three health cancer centers in the district, utilization was slowly picking up as most women cling to cultural issues and taboos. The few nurses and community health workers serving the community are facing unconsiderable hurdles in trying to educate women about the importance of breast self-examination. However, due to the adequacy of health care providers, the enthusiasm is less likely to be sustained.

5.2.2 Influence of Socio-cultural factors on the Prevention and Treatment

The study revealed that most women believe that breast cancer screening is a very stressful process especially when they find medication in hospital facilities and therefore are more confident with their cultural practices as well as continue to withhold their traditional beliefs. Although a significant number of women believe that breast cancer screening is very necessary because the disease can be treated and cured if the diagnosis is done early cultural pressure to seek black magic advisory in times of illnesses erects huge impediments to the entire prevention and treatment endeavors. It also emerged that majority of women in urban setting had positive perception and attitude towards breast cancer prevention and treatment but had a negative perception towards breast cancer screening process due to beliefs that female organs are sacred and not to be exposed to other persons than to spouse and children when lactating. The finding concurs with Morhasan et al., (2013), whose finding revealed that African cultures and their practice contributed significantly to low levels of cancer awareness in African cities. The resulting index is much less than 40 percent while the awareness of
screening is below 20 percent thereby making prevention and treatment of the disease even more challenging.

A significant number of respondents especially those without formal education as well as those with little or no awareness of breast disease perceive breast cancer as a mere lump. It is a common tradition in African populations that minor health conditions result in delayed diagnosis and eventually worsens the patient’s situation. The study learned that it’s a common behavior in the study area that patients who suffer similar health conditions usually consult renown herbalist or medicine men as their first point of contact for health solutions thereby making prevention and treatment of breast cancer very difficult to institute. Gyasi et al. (2013), study noted overreliance on traditional practices in disease management. Their study highlighted that about 60% of the entire world population use traditional herbs and medicines to treat disease; about 80% of them live in Africa. A significant population holds a belief that traditional medicine-men and herbalists possess some sort of supernatural power which they have inherited from their forefathers.

Inroads aimed at improving women’s knowledge and attitudes towards breast cancer should involve a strategy that aims to reduce social stigma. Providing an open forum through which women can openly discuss their breast issues without stigmatization an absolute need to challenge their perceptions is inevitable. The community role models or the influential members of the society have been encouraged to steer breast cancer awareness and enlightenment campaigns. Real testimonies from survivors who had completely recovered would inspire those still unsure of what to do. Ensuring that the
public is informed about functional and reliable hospital medication and management would poke holes into the traditional methods.

The findings reveal traditional religion commands a significant following in Bahi district. The position of traditional medicine men is outstanding and considered as important in providing traditional remedies to such diseases as breast cancer. The study noted that household heads were equally influential on which medication to take and therefore there is a great need to consider enlightening them on the effectiveness of hospital medication to reduce or eliminate cases where herbalist and traditional medicine men promptly prescribe to the patient’s herbs and other concoctions for health conditions beyond their comprehension.

The study also noted that there are customary implications for medical centers where male health workers conduct critical breast examination to a married woman and which is equally viewed as a taboo in the study area. The study highlighted instances of socioeconomic implications as most married women in the Bahi community are predominantly dependent on their husbands. The factors perpetuate women’s inequality because most men view women’s health as entirely reproductive thereby perpetuating to their role as mothers and wives. A WHO report by the Commission on Women Health in the African Region (2012) made a similar finding with over 80% of women struggling with the problem. Re-focusing on comprehensive women health can break down issues of reproductive health from women’s health.
5.2.3 Health Promotion Interventions for Prevention and Treatment of Breast Cancer

The study observed that community based programs have already been rolled out in most parts of the district but still inadequate scale up the prevention of breast cancer by enlightening the residents on best health practices as well as eating habits. The study equally confirmed that the community health workers in charge of informing the public about the prevention and treatment interventions were few on the ground and did not have enough resources to facilitate sustainable community awareness programs across all regions.

The study also revealed that forums to educate women on breast health, healthy living and eating were already in place while others are still on course. The study was informed that at the designated screening centers located strategically within the district, there is a health worker in charge of enlightening fellows about breast care, screening awareness, and cancer management if found and so forth. However, the responses signaled that, such interventions are not far reaching as not everyone seeks medical treatment at the said hospitals.

The study further noted that access to medical facility where either a patient or someone seeking breast examination was a huge impediment. Setting up at least a screening center in every division was in itself an important step towards ensuring treatment is brought closer to the patients. On average women travel miles and miles away from their residence so as to get such services. As a result, more medical centers need to be established so as to help reach out to all the residents in the district and beyond. The study observed that the district had only one cancer screening center while huge
populations still remain desperate on where to find care from. The study noted that members of the public are not adequately informed about the presence of medical centers that handle cancer related ailments. The study also noted that medical services related to cancer were expensive and costly for the residents thereby discouraging them.

5.3 Conclusions

The study concluded that majority (32.3%) of the participants in the study were women aged between 15 and 20 years. Most of them (64%) had primary school education signifying that the level of education was still low in most areas and especially in the villages. The study also determined that majority of participants (39%) were affiliated to Christianity while a significant size of the respondents practiced traditional African religion.

The study concluded that more than half of women of reproductive age were aware of the disease. A significant number of women (61.1%) were aware of breast self-examination. The study noted that only (23.9%) practiced breast self examination. The awareness campaigns and community enlightenment were (47.3%) effective in informing women about prevention and management of breast cancer.

The study concluded that socio-cultural factors had a strong influence on the overall health of women of reproductive age at (49.7%). A significant number of respondents (46.4%) perceived BC as a curse and therefore gender roles dictated the support given to women with regard to early detection and the physical examination of women’s intimate body parts. Most of the respondents (50.8%) noted that members of the
community consulted herbsmen to provide BC care. The effect is that some women end up deferring cancer screening for way too long due to strong dictates of the culture.

The study concluded that (52.7%) of the respondents noted considerable efforts by both the government and the community-based organizations had been put up. Majority of the respondents (51%) noted presence of community health workers in the area. The study equally noted that although the National Breast and Cervical Cancer Program and MEWATA community-based group that has a nationwide coverage are educating women to take bold steps in fighting the disease majority of women (51.4%) did not heed to the call.

5.4 Recommendations

The study recommends that a more proactive awareness program be customized to consider women in the community who are relatively older, those without sufficient level of education and those whose faith affiliation does not support both clinical and breast self examination. Introduction of such programs will ease access of healthcare among women of reproductive ages in the area.

The study recommends a more strategic, strong and rigorous approach in carrying out the awareness campaigns as well as educative programs in the society which may involve integrated curriculum development as well as breast self-examination aimed approaches. Effective awareness programs need to be developed to include all the stakeholders such as the household heads, influential community and village leaders, religious and traditional leaders alongside the local authorities. Such approaches would
help counter-address the stubborn negative traditional/cultural practices and beliefs to facilitate women access to women’s health.

Public health professionals in Tanzania are expected to develop a comprehensive, strategic, and national approach that was effective in controlling the severity of the disease, device more strategic procedures to counter-address the traditional and cultural practices and beliefs while seeking viable empowerment programs for the women in those communities.

The study recommends that the government establish more cancer screening and treatment centers across the district as well as ensuring that healthcare especially the cancer related ones becomes affordable to the people. Through such interventions, program implementation and legislations the government through the public health department will provide more sounding opportunities to increase participation in breast cancer screening. The National Prevention Strategy framework should be established to ensure that screening camps are widely spread across all the provinces and districts of Tanzania. The approach will, however, improve on measures put in place more intense.

5.4.1 Recommendation for further research

The study recommends for further research on a more inclusive study that will focus on the other types of cancer ailment should be carried out to the entire country.
REFERENCES

Ahuja, S. & Chakrabarti, N. (2010). To Determine the Level of Knowledge Regarding Breast Cancer and to Increase Awareness about Breast Cancer Screening Practices Among a Group of Women in a Tertiary Care Hospital in Mumbai, India. The Internet J. Public Health.1:1


Medical Women Association of Tanzania [MEWATA] (2009).


United Republic of Tanzania National Bureau of Statistics website: 2012 Census


APPENDICES

Appendix I: Consent Form

Informed Consent for women of Reproductive age 15-49 years in English.

I am Mpali Adela Maria, a post graduate student in the school of Public Health at Kenyatta University. I am conducting a research study on “Breast Cancer Prevention and Treatment Practices among Women of Reproductive age in Bahi Division Bahi District Tanzania”. It is my hope that the information I collect in my study will guide me to set a benchmark that will give way for further studies. The findings of this study will strictly be for academic purpose and useful for my partial fulfillment of the requirements for award of the degree of master of Public Health (Reproductive Health) of Kenyatta University. The Kenyatta University Ethical Review Committee has approved this study and permission was obtained from Ministry of Higher Education Science and Technology of the Republic of Tanzania as well as Ministry of Health through the District Medical officer of Bahi.

Research Procedures

This study contains some set guidelines and procedures which will require the respondent to answer the study questions regarding the research topic “Breast Cancer Prevention and Treatment Practices among Women of Reproductive age in Bahi Division Bahi District Tanzania. Taking part in this study is completely voluntary, withdrawing from participating in this study is also allowed if the respondents so wish. However, seeks

Discomfort and Risks
The researcher is convinced that **NO** risk likely to befall the participants in this study as a result of their voluntary contribution.

**Benefits**

The ministry of Health was mobilized through this study to conduct programmes on Breast Cancer and Breast self-examination in the electronic and printing media by in native tongue to reach out to rural women. Also breast Cancer and Breast self-examination was incorporated in Tanzania School curriculum so that the Adolescent in school are informed at the timely age.

**Reward**

There is no any reward to be provided to the participants in this research.

**Confidentiality**

The researcher understands the gravity of the study topic and valuable support and information provided by the respondents toward the study. The researcher seeks to uphold ethics in handling of the valuable resources provided by the respondents and assure them total confidentiality of the information they provide. To ensure that privacy and confidentiality are achieved the respondents will not be required to write their names or conceal their identity on the questionnaires given to them.

**Contact Information**

If you have other questions concerning this study feel free to contact me  Mpali Adela Maria through telephone number +254717711253 or +255786600176 email address, mhegemary@yahoo.com. Also you can contact my supervisors, Dr. Judy Mugo +254720671286 and Dr. Onditi Kodhiambo +254724468162 or The Kenyatta
University Ethical Review Committee Secretariat through the chairman.kuerc@ku.ac.ke, or secretariat.kuerc@ku.ac.ke

**Participant’s statement**

The above information about the study and the importance of participating has been explained to me and I choose to agree to participate in this study. I understand that I can withdraw at will, any time in case of any inconvenience during the study.

Name of Participant

……………………………………………………………………………………………

_______________________________ _____________________________

Signature or Thumbprint Date

**Investigators Statement**

I, the signatory here under, I have explained the information to the participants in a clear language on how to follow the procedure in this study and the risks as well as the benefits involved.

Name of Interviewer

……………………………………………………………………………………………

_______________________________ _____________________________

Signature or Thumbprint Date
Appendix II: Research Questionnaires

The reason for these questionnaires is to assess the breast cancer prevention and treatment practices among women of reproductive age (15-49 years) in Bahi Division, Bahi District within Dodoma region of Tanzania. The information you will give is to be considered confidential and will only be used for academic purpose. This study is part of my postgraduate research project. Your cooperation was highly appreciated.

Instructions

Please respond by putting a ☑ or ☐ to an answer that corresponds with your response.

Don’t write your name on the questionnaire.

Section A: Demographic Information

1. Respondent Category:
   General women of reproductive age (15-49) Years

2. Respondent’s Age
   15-20 [   ] 21-25 [   ] 26-30 [   ] 31-40[   ] 40 and Above [   ]

3. Education Background
   a. Primary (   )
   b. Secondary (   )
   c. College (   )
   d. Others (please specify).................................................................

4. Religion
   Christians [   ] Islam [   ] Hindu [   ] Traditionists [   ]
   Others [   ]
5. Duration of stay within Bahi Division

1-5 Years [ ] (b) 5-10 Years [ ] 10-20 Years [ ] 20- and Above [ ]

Please respond by putting a ☑ to an answer that corresponds with your response.

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Not Sure</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Section B</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Awareness of breast cancer</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women in Bahi know about breast cancer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Many women are aware of breast cancer causes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women in Bahi know about clinical breast examination and breast self</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>examination</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I regularly do BSE at the comfort of my home</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women go for screening for breast cancer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In this area there breast cancer awareness programs being undertaken</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local community does appreciate the information about breast cancer?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breast cancer has caused death in Bahi Division in the past</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Section C

**Effects of socio-cultural factors on prevention and treatment of breast cancer**

<table>
<thead>
<tr>
<th>People of Bahi Division cling strongly to socio-cultural practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>People of Bahi consult with traditional herbsmen when they become ill.</td>
</tr>
<tr>
<td>Bahi people perceive breast cancer as a curse</td>
</tr>
<tr>
<td>Traditional herbsmen provide cure to breast cancer patients</td>
</tr>
<tr>
<td>Socio-cultural practices offer effective remedies to prevention and treatment of BC</td>
</tr>
<tr>
<td>Bahi people associate breast cancer with witchcraft</td>
</tr>
</tbody>
</table>

### Section D

**The interventions already put in place to prevent and treat breast cancer**

<table>
<thead>
<tr>
<th>The community informed about breast cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community health workers help patients manage breast cancer disease</td>
</tr>
<tr>
<td>Health workers often hold forums to educate women on matters of breast health</td>
</tr>
<tr>
<td>Medical centers have been set up to provide care to breast cancer patients</td>
</tr>
<tr>
<td>The efforts already in place has helped prevent the increase in breast cancer cases</td>
</tr>
</tbody>
</table>

Thank you for your kind response.
Appendix III: Questionnaire for Focus Group Discussions

Questions for Women representatives for the community units

A. Awareness of breast cancer disease and prevention

1. Do you know about breast cancer?
2. What are the causes of breast cancer in this community?
3. Do you go for breast cancer screening?
4. Are you aware of breast self-examination?

B. The effect of cultural practices and traditional belief on prevention and treatment of Breast Cancer

1. Do you appreciate your traditional beliefs and cultural practices?
2. What cultural practices and beliefs would you blame for the rise in cases cancer?
3. Does your culture associate breast cancer to witchcraft?
4. Do you think cultural practices provide the best treatment?

C. The intervention already put in place to prevent and treat breast cancer

1. Is the community informed about breast cancer?
2. Are there any campaigns on breast cancer in the mass media?
   a) Yes ( ) No ( )
   b) If Yes, how is the message received?
3. Have you had any training on breast cancer disease recently?
4. Do you think the effort already in place will help to prevent the disease in the case of breast cancer?

Thanks very much for your participation.
Appendix IV: KII for Chews, Reproduction Health Coordinator and NGOs Representative

Instructions to the Respondent
This KII Guide should be filled by the KII people in the community to include, chews, reproduction health Coordinator and NGOs representative.

Please indicate the correct option as honestly as possible by putting a tick (✓) against one of the options.

PART I: Personal Information of the Respondents

Individual description
RH Coordinator ( ) CHEWs ( ) NGOs Representative ( )

1. Gender: 
   a) Male       b) Female

2. What are your academic qualifications?
   a) Certificate    Diploma    c) B. Degree  d) M. Degree

3. How long have you been working in this community?
   a) 0-5       b) 6-10    c) 11-15    d) 16-20  e) Over 20 years

SECTION A
Awareness of breast cancer
1. Do women know about breast cancer?
   Yes ( ) No ( )
2. Do you think breast cancer curable? Yes ( ) no ( )
   Yes ( ) No ( )
   If yes, Explain

.................................................................................................................................
3. Do women go for screening for breast cancer?
   Yes ( )    No ( )
   Explain…………………………………………………………………………………………
4. Do community workers and educators enlighten women on breast cancer?
   Yes ( )    No ( )
   Explain…………………………………………………………………………………………
5. Does the local community appreciate the information about breast cancer?
   Yes ( )    No ( )
   Explain…………………………………………………………………………………………
6. Has breast cancer caused death in Bahi Division in the past? Do you think the numbers of deaths are on the rise?
   Yes ( )    No ( )
   Explain…………………………………………………………………………………………

SECTION B

2. Effects of cultural practices and traditional beliefs on prevention and treatment of breast cancer

1. Do the people of Bahi Division appreciate their traditional beliefs cultural practices?
   Yes ( )    No ( )
   Explain…………………………………………………………………………………………
2. Do you think cultural practices affect passing of information to the people?
   Yes ( )    No ( )
   Explain…………………………………………………………………………………………
3. Does culture associate breast cancer to witchcraft?
   Yes ( )    No ( )
   Explain…………………………………………………………………………………………
4. Does the culture provide solution to breast cancer patients?
   Yes ( )    No ( )
   Explain…………………………………………………………………………………………
5. Do you think traditional cultural practices offer patients the best treatment?
   Yes ( )        No ( )
   Explain........................................................................................................

6. Do you think cultural practices have effect on management of breast cancer in Bahi Division?
   Yes ( )        No ( )
   Explain........................................................................................................

SECTION C
The interventions already put in place to prevent and treat breast cancer.

1. Is the community informed about breast cancer?
   Yes ( )        No ( )

2. Are there community health workers to help patients manage Breast Cancer?
   Yes ( )        No ( )
   Explain........................................................................................................

3. Do health workers often hold forums to educate women on matters of breast health?
   Yes ( )        No ( )
   Explain........................................................................................................

4. Are there medical centers set up to provide care to breast cancer patients.
   Yes ( )        No ( )
   Explain........................................................................................................

5. Have you had any training on Breast Cancer disease recently?
   Yes ( )        No ( )
   Explain when................................................................................................

6. Do you think the efforts already in place will help prevent the increase in the cases of breast cancer?
   Yes ( )        No ( )
   Explain........................................................................................................

   Thank for your kind responses
Ambatisho V: Fomu Ya Ridhaa Ya Kushiriki Utafiti

Mimi Mpali Adela Maria mwanafunzi wa uzamiri katika chuo kikuu cha Kenyatta kilichoko Nairobi Kenya. Ninafanya tathimini jinsi yakuzuia pamoja na tiba mazoezi ya ugonjwa wasaratani ya matiti katika Tarafa ya Bahi wilaya ya Bahi. Nina imani kuwa maelezo nitakayo yapata kutoka kwenu yatasaidia kutengeneza njia kwa utafiti mwingine.


Maelezo ya utafiti huu

Ukikubali kushiriki katika utafiti huu utafiti huu utaaliwa maswali kwa kichwa cha habari cha utafiti huu? “Njinsi ya kuzuia pamoja na tiba mazoezi ya saratani ya matiti kwa wanawake wa umri wa kuzaa Tarafa ya Bahi wila yaya Bahi Tanzania” Ni hiari yako kukubali kushiriki kwenye utafiti huu na unaruhusiwa kujitumia wakati wowote bila matatizo.

Hiari ya kutojihusicha /au hatari nyinginezo
Sina makisio yoyote kwamba madhara yaweza kutokea na yampate anayeshiriki utafiti huu.

Faida

Waziri wa afya atahamasika kutokana na utafiti huu na kuweza kuchukua hatua za kuanda mafunzo juu ya saratani ya matiti kwa wanawake wa umri wa kuzaa na jinsi ya kujua kujichunguza mwenyewe na kugundua dalili za saratani ya matiti. Pia mafunzo yanayohusu saratani yataandikwa kwa lugha ya wanyama au kila mmoja aweze kusoma nakweliwa kwa zaidi kwa wanawake wanaoishi vijijini. Zaidi ya hayo mafunzo ya saratani ya matiti na jinsi ya kujichunguza mwenyewe juu ya saratani ya matiti zitawekwa kwenzeyo mtahala wa mafunzo ya shule za msingi na za sekondari kwa wanawake wanaoishi vijijini. Zaidi ya hayo mafunzo ya saratani ya matiti na jinsi ya kujichunguza mwenyewe juu ya saratani ya matiti zitawekwa kwenzeyo mtahala wa mafunzo ya shule za msingi na za sekondari kwa wanawake wanaoishi vijijini. Zaidi ya hayo mafunzo ya saratani ya matiti na jinsi ya kujichunguza mwenyewe juu ya saratani ya matiti zitawekwa kwenzeyo mtahala wa mafunzo ya shule za msingi na za sekondari kwa wanawake wanaoishi vijijini. Zaidi ya hayo mafunzo ya saratani ya matiti na jinsi ya kujichunguza mwenyewe juu ya saratani ya matiti zitawekwa kwenzeyo mtahala wa mafunzo ya shule za msingi na za sekondari kwa wanawake wanaoishi vijijini.

Kutunza siri
Taarifa zozote zina husiana na utafiti huu ni siri na zitatunzwa vizuri. Mtu yeyote asiye husika hataruhusiwa kuziona na hatutegemei madhara yoyote ya mpate yeyote anayeshiriki utafiti huu.

Malipo
Hakuna malipo yeyote yatakayotolewa kwa washiriki wa utafiti huu.
Namna ya kuwasiliana
Kama una maswali yeyote kuhusu utafiti huu usisite kuwasiliana kwa kupitia nambari yangu ya simu +254717711253 au +255786600176 Na unaweza kutumia barua pepe ifuatayo mhegemary@yahoo.com. Pia unaweza kuwasilianana na wasimamizi, wangu wa utafiti Dkt. Judy Mugo +254720671286 and Dkt. Onditi Kodhiambo +254724468162 au Kamati ya maadili ya Chuo Kikuu cha Kenyatta, secretariat.kuerc@ku.ac.ke

Uamuzi wa mshiriki
Kutokana na maelezo ya hapo yaliotangulia, mimi nimefahamu umhimu wa kushiriki katika utafiti huu nanimeeleva kuwa nawezakujitwa wakati wowote iwapo kuna shida yeyote kuhusiana na utafiti huu.
Jina la Mshiriki

.................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................
Sahihi/Alama ya Kidole Tarehe

Manenoyamtahani
Mimi ninayefanya utafiti huu, Nimewaelewisha wale watakooshiriki utafiti huu kwa lugha ya kueleweka jinsi watakavyo fuata utaratibu waku shiriki utatafiti pamoja na faida na hasara zitokanazo na kazi hii.

Jina la Mtahini.

.................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................
Sahihi/ au Alama ya Kidole Tarehe
Ambatisho VI: Dodoso Za Utafiti


Maelekezo.

Tafadhali tia sahihi sawasawa na jibu lako. Tafadhali usiandike jina lako kwenye karatasi hii.

Sehemu: A Maelezo ya demografia

1. Mhojiwa Jamii:
   Wanawake wa umri wa kuzaa

2. Umri wa mhojiwa jamii.
   15-20 (   ) 21-25 (   ) 26-30 (   ) 40 na zaidi (   )

   (a) Shule ya msingi (   )
   (b) Secondary (   )
   (c) Chuo (   )
   (d) Nyinginezo (tafadhali elezea) …………………………………………………

4. Dini
   (a) Mkristu (   )
   (b) Mwislam (   )
   (c) Dini ya Kihindi (   )
   (d) Dini za kitamaduni (   )

5. Umeishi kata ya Bahi kwa muda gani?
   Mwaka 1-5 (   )
   5-10 (   )
   10-20 (   )
   20 na zaidi
Sehemu B: Maelezo kuhusu ufahamu wa saratani ya matiti

Tafadhali jibu yafuatayo kwa kutia alama ✔ kwenye sehemu unayokubaliana nayo.

<table>
<thead>
<tr>
<th></th>
<th>Nakubaliana kikamilifu</th>
<th>Nakubaliana ana</th>
<th>Sina uhakika</th>
<th>Sikubaliani</th>
<th>Sikubaliani kamwe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wanawake wanajua ugonjwa wa saratani ya matiti</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saratani ya matiti yaweza kupona</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wanawake huwa wanaenda kliniki kupimwa saratani ya matiti</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wewe kama mfanya kazi wa afya ya jamii, unawafahamisha wanawake kuhusu saratani ya matiti</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viongozi wa jamii wanaelewa maelezo yanayotolewa kuhusu saratani ya matiti</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saratani ya matiti inachangia kuongeza viö katika Tarafa hii ya Bahi</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viö vimeongezeka hapa Bahi kutokana na saratani ya matiti</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SEHEMU C

Matokeo ya mila na desturi za jadi juu ya kuzuia pamoja na matibabu ya saratani ya matiti

<table>
<thead>
<tr>
<th>Wakaaji wa kata ya Bahi wana imani na mila na desturi za jadi</th>
<th>nakubaliana kikamilifu</th>
<th>kubaliana</th>
<th>Sina uhakika</th>
<th>sikubaliani</th>
<th>sikubaliani kamwe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mila nadesturi za jadi zinazuia kueneza ujumbe kwa watu</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kuhusu ugonjwa wa saratani ya matiti</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utamaduni wa jadi, mila na desturi za kale zinahusisha saratani ya matiti na uchawi</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utamaduni ni mila za jadi zinatoa matibabu sahihi ya ugonjwa wa saratani ya matiti</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mila na desturi za jadi zimezuia matibabu ya saratani ya matiti</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Asante kwa kushiriki kwako**
Ambatho VII: Mahojiano Ya Faragha

Maswali ya kujadiliana kwa wanawake wa umri wakuza pamoja na wafanyakazi wa Afya ya jamii mmoja kutoka kila kitongoji kuhusu kutathimini namna ya kuzuia saratani ya matiti na tiba mazoezi kati ya wanawake waumri wa kuzaa Kata ya Bahi, Wilaya ya Bahi, Mkoa wa Dodoma.

A. Uelewa kuhusu saratani ya matiti

Je unaelewa nini kuhusu ugonjwa wa saratani ya matiti?

Je ni kitu gani kinasababisha ugonjwa wa saratani ya matiti katika jamii yako?

Je ulishaawahi kwenda kuchunguzwa saratani ya matiti kwenye Hospitali?

Je unaelewa namna na jinsi yake kujichunguza mwenyewe kuhusu saratani ya matiti?

B. Matokeo ya mila na desturi za jadi juu ya kuzuia, pamoja na matibabu ya saratani ya matiti

Je huwa unajivunia mila na desturi za jamii yako?

Ni mila gani katika jamii yako ambazo unalaumu kwamba zinasaidia kuongeza au kueenea kwa ugonjwa huu wa Saratani ya matiti?

Je mila na desturi zenu zinahusishanisha au kuowanisha saratani ya matiti na uchawi?

Je unafikiri kuwa mila zenu zinahusishanisha au kuowanisha saratani ya matiti na uchawi?

Je unafikiri kuwa mila zenu zinahusishanisha au kuowanisha saratani ya matiti na uchawi?

C. Juhudi za serikali za kusaidia kuzuia saratani ya matiti katika jamii

Je, jamii inaelewa ugonjwa huu wa saratani ya matiti?

Je, kunamatangazo yoyote kuhusu saratani ya matiti kwenye vyombo vya habari kama vile radio, magazetini, luninga nakadhalika.

Je, mlwahi kuwa na mafunzo yeyote kuhusu saratani ya matiti hivi karibuni?

Je, unafikiri kuwa juhudi za serikali zilizopo kuhusu saratani ya matiti kwa akina mama zimesaidia kuzuia ugonjwa huu?

Asante sana kwa kushiriki kwako
Appendix VIII: Kenyatta University Ethics Committee Approval

KENYATTA UNIVERSITY ETHICS REVIEW COMMITTEE

Fax: 8711242/8711375
Email: kuerc.chairman@ku.ac.ke
     kuerc.secretary@ku.ac.ke
     secretariat.kuerc@ku.ac.ke
Website: www.ku.ac.ke

Our Ref: KU/ERC/APPROVAL/VOL.1 (87) Date: 28th September, 2017

P. O. Box 43844,
Nairobi, 00100
Tel: 8710901/12

Mpali Adela Maria
Kenyatta University
P.O. Box 43844 – 00100
NAIROBI

Dear Ms. Mpali,

APPLICATION NUMBER: PKU/67637354 “BREAST CANCER PREVENTION AND TREATMENT PRACTICES AMONG WOMEN OF REPRODUCTIVE AGE IN BAHI DIVISION, BAHI DISTRICT, TANZANIA”

1. IDENTIFICATION OF PROTOCOL

The application before the committee is with a research topic Application Number:


2. APPLICANT

Mpali Adela Maria

3. SITE

Bahi District, Tanzania

4. DECISION

The committee has considered the research protocol in accordance with the Kenyatta University Research Policy (Section 7.2.1.3) and the Kenyatta University Review Committee Guidelines AND APPROVED that the research may proceed for a period of ONE year from 28th September, 2017.
ADVICE/CONDITIONS

i. Progress reports are submitted to the KU-ERC every six months and at the end of the study.

ii. Serious and unexpected adverse events related to the conduct of the study are to be reported to this committee immediately they occur.

iii. Notify the Kenyatta University Ethics Committee of any amendments to the protocol.

iv. Submit an electronic copy of the protocol to KUERC.

When replying, kindly quote the application number above.

If you accept the decision reached and advice and conditions given please provide below and return to KU-ERC a copy of the letter.

________________________

DR. TITUS KAHIGA,
CHAIRMAN ETHICS REVIEW COMMITTEE

I: 
accept the advice given and conditions therein.

Signature: Dated this day of 03/10/12
Appendix IX: Kenyatta University Graduate School Approval

SENCHUMT UNIVERSITY
GRADUATE SCHOOL

E-mail: ghmgraduates@kuniv.ac.ke
Website: www.ku.ac.ke

FROM: Dean, Graduate School
DATE: 28th April, 2017

TO: Adelia Maria Mputu
C/o Population and Reproductive Health Department

SUBJECT: APPROVAL OF RESEARCH PROPOSAL

This is to inform you that Graduate School Board, at its meeting of 19th April, 2017, approved your Research Proposal for the M.E.I. Degree, entitled "Breast Cancer Prevention and Treatment Practices among Women of Reproductive Age in Bungo Division, Bungo District, Tanzania".

You may now proceed with your data collection, subject to clearance with the Director General, National Commission for Science, Technology and Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed supervision tracking forms per semester. The form has been developed to replace the Progress Report Forms. The supervisor tracking forms are available at the University’s Website under Graduate School webpage downloads.

Thank you.

JULIA GITU
FOR: DEAN, GRADUATE SCHOOL

CC: Chairman, Population and Reproductive Health Department

Supervisor:

1. Dr. Judy Mugo
   Department of Population and Reproductive Health
   Kenyatta University

2. Dr. Nditi Kothutikhe M.
   C/o Department of Pharmacology
   Kenyatta University
Appendix X: Kenyatta University Research Authorization

Kenyatta University
Graduate School

E-mail: dean-graduate@kun.ac.ke
Website: www.kun.ac.ke

Our Ref: Q189EA/27132/2014

Ministry of Education, Science and Technology,
P.O. Box 9121,
DAR-ES-SALAAM, TANZANIA

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR ADELA MARIA MPALI - REG. NO. Q189EA/27132/2014

I write to introduce Ms. Adela Maria Mpali who is a Postgraduate Student of this University. She is registered for M.P.H. degree programme in the Department of Population & Reproductive Health.

Ms. Mpali intends to conduct research for an M.P.H. Proposal entitled, “Breast Cancer Prevention and Treatment Practices among Women of Reproductive Age in Baha Division, Baha District, Tanzania”.

Any assistance given will be highly appreciated.

Yours Faithfully,

MRS. LUCY N. MBAARU
FOR: DEAN, GRADUATE SCHOOL

DATE: 25th April, 2017
Appendix XI: Approval from the Ministry of Education, Science and Technology

THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

Ref. No. A.E.22/235/202/250

Executive Director,
Bahi District,
P.O. Box 2903,
Bahi

For an introductory letter for Dr. Adela Maria Mpali (Sr.)

Kindly be informed that the above named person is a Tanzanian citizen and a holder of Passport No. AF651512.

Please be further informed that, Dr. Adela Maria Mpali is currently pursuing an M.Phil degree programme at Kenyatta University in the Republic of Kenya under private sponsorship.

Humbly further note that, one of the requirements for a candidate to successfully graduate, is to conduct a thorough research on a designated topic. As such may I take this opportunity to sincerely request your good office to allow Dr. Adela Maria Mpali to conduct a research in Bahi District on "Breast Cancer Prevention and Treatment Practices among Women of Reproductive Age in Bahi Division, Bahi District, Tanzania".

Kindly also note that, a copy of her findings should be left at your office for further reference.

Thanking you for your understanding and cooperation.

Sincerely yours,

Machungu, L. I.

For: PERMANENT SECRETARY
Appendix XII: Approval from the Office of the President, United Republic of Tanzania Regional Administration and Local Government

UNITED REPUBLIC OF TANZANIA
PRESIDENT’S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT

Dodoma Region
Anwani ya Simu REGCOM
Tel No. 2324343/2324384
E-Mail No. ras@dodoma.go.tz
Fax No. 026 232046/2320121
Unacoibu taafadhali ina.

Regional Commissioner’s office,
P.O. Box 914,
Dodoma.

Ref. No. DB.357/369/10C/60

District Executive Director,
Bahi.

14th June, 2017

RE: RESEARCH PERMIT

This letter serves to introduce Dr. Adela Maria Mpali (Sr.) who is a bonafide M.P.H Degree Student of Kenyatta University in the Republic of Kenya and who is at the moment conducting Research in Dodoma Region.

The title of the research is “Breast Cancer Prevention and Treatment Practices among Women of Reproductive Age in Bahi Division, Bahi District.” The period for which this Research permission has been granted is from 19th to 30th Oct., 2017 and it will cover Bahi District Council.

Please accord her with all necessary assistance to achieve her research objectives.

Thank you for your cooperation.

Deogratias H. Yinza
For: REGIONAL ADMINISTRATIVE SECRETARY
DODOMA

Copy to: District Administrative Secretary,
Bahi.

Dean, Graduate Shool,
Kenyatta University Graduate School.

Dr. Adela Maria Mpali (Sr.),
Kenyatta University graduate School.
Appendix XIII: Approval from Bahi District Commissioner

HALMASHAURI YA WILAYA BAHI
(Baru a zote ziyandikwe kwa Mkurugenzi Mtendaji)

Simu: +255 26 2961400
Nukushi: +255 26 2961401
Barua pepe: bahidc@gmail.com
Tovuti: www.bahidc.go.tz

Kumb.Na HW/V.30/2/VOL.III/10

WATENDAJI WA KATA,
KATA ZA BAHI,
MPAMANTWA, IBIHWA, KIGWE.

YAH: UTAFITI JUU YA KUZUIA SARATANI YA MATITI NA TIBA MAZOEZI KWA WANAWEKE WENYE UMRI WA KUZAA MIKA 15-49

Tafadhal rejea kichwa cha habari hapo juu chausika.

Namtambulisha kwenu Dr. Adela Maria Mpal (Sr.) wanafunzi wa Chuo Kikuu cha Kenyatta Kenya. Ambae atafanya utafiti juu ya kuzuiia salatani ya matiti na tiba mazoezi kwa wanawake wenyewe umri wa kuzaa miaka 15-49.

Utafiti huu tarehe 19/10/2017 hadi 30/11/2017.

Tafadhal mpcni ushirikiano wa kutosha ili kukamilishia utafiti wake kwa maendeleo ya Taifa.

Fauzia T. Nombo
Kny: MKURUGENZI MTENDAJI (W)

Nakala: Mkuu wa Wilaya, Bahi.

" : Diwani, Kata ya Bahi
" : Diwani, Kata ya Bahi
" : Diwani, Kata ya Mpa Mantwa
" : Diwani, Kata ya Ibihwa
" : Diwani, Kata ya Kigwe
" : Mkuu wa Chuo Chuo Kikuu Kenyatta- Kenya

Mkundicho wa Mkuu wa Minda ya Baha:
" : Mkuu wa Minda ya Baha
" : Mkuu wa Minda ya Ibihwa
" : Mkuu wa Minda ya Kigwe
" : Mkuu wa Minda ya Mpa Mantwa
" : Mkuu wa Minda ya Mwitikira
" : Mkuu wa Minda ya Polisi (W) Baha.
" : Mkuu wa Minda ya Afisa Usalama Wilaya Baha.
" : Mkuu wa Chuo Chuo Kikuu Kenyatta- Kenya.
Appendix XIV: Study Area Map

Republic of Tanzania map showing Dodoma Region  Map showing Bahi District