EFFECTS OF TRAINING MEN ON INVOLVEMENT IN HOME BASED CARE FOR PEOPLE LIVING WITH HIV AND AIDS IN KISII COUNTY, KENYA

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Effects of Training Men on Involvement in Home Based Care for People Living with HIV and AIDS in Kisii County, Kenya

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other university;

Signature…… Date……

Ruth Kwamboka Makori

This thesis has been submitted for examination with our approval as the University supervisors.

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DEDICATION

This work is dedicated to my sons; Melvin, Emmanuel and Noah for their moral support in carrying out this work.

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I take this opportunity to thank the Almighty God for the good health and life, a chance to take me through my doctoral journey and my career achievements. I wish to extend gratitude to Jomo Kenyatta University of Agriculture for granting me an opportunity to be a doctoral student and contribute to excellence in the field of public health and health sciences in general. I extend my greetings and thanks to my supervisors Dr. Daniel Nyamongo, Dr. Joseph Mutai, Dr. Justus O. S. Osero who have corrected, supported and shared wise thoughts in the doctoral thesis development and experiences awaiting my approval and career excellence. I thank earnestly the Kenyatta National Hospital, Kisii Referral Hospital, Ministry of Health fraternity and dear respondents for their responses that aided the completion of this thesis. To my fellow doctoral students, faculty staff, visiting consultants and technical parties whom we encountered and in their doctoral journey, I thank you for the contact and engagements that led to my completion of my doctoral thesis. I extend my well wishes and appreciation to all my family members and friends who offered their time, financial and other material support to seeing my doctoral thesis journey a success. To you all, may the good Lord our God, bless you always.

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ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ANCOVA	Analysis of Covariance
ANOVA	Analysis of Variance
ART	Antiretroviral Treatment
CHBC	Community Home-based care
CI	Confidence Interval
FGDs	Focus Group Discussions
ESHE	Enabling Sustained Health Equity
GoK	Government of Kenya
HBC	Home-based care
HEARD	Health Economics and HIV/AIDS Research Division
HIV	Human Immunodeficiency Virus
IUSSP	International Union for the Scientific Study of Population
JSISAAIDS	John Snow International and Southern Africa AIDS Information Dissemination Services
KANC	Kenya AIDS NGOs Consortium
LSD	Least Significant Difference

M.C.H.D	Masters in Community Health and Development
MLR	Multiple Linear Regression
M.P.H	Master of Public Health
MoH	Ministry of Health
MOHSS	Ministry of Health and Social Services
NACC	National AIDS Control Council
NASCOP	National AIDS and STI Control Programme
NEGD	Non-Equivalent Group Design
NGO	Non-Governmental Organization
PLWHAs	People Living with HIV and AIDS
PMTCT	Prevention of Mother to Child Transmission
SADC	Southern African Development Community
SPSS	Statistical Package for Social Sciences
STI	Sexually Transmitted Infections
UNAIDS	United Nations Programme on HIV/AIDS
USAID	United States Agency for International Development
VCT	Voluntary Counselling and Testing

VSO RAISA	Voluntary Service Overseas Regional AIDS Initiative of Southern Africa
WFP	World Food Programme

DEFINITION OF TERMS

Attitude: Someone's opinion or feelings about something especially as shown by their behaviours.

Constraints: Something that limits your freedom to do what you want.

Control Group: A subset of the sample identical to the intervention group, but does not receive the experimental manipulation, and serves as a way to measure what might have happened without any intervention.

Culture: A set of ideas, beliefs and ways of behaving of a particular

Effect: A change that is a result or consequence of an action or other cause.

Home-based care: Any form of care given to sick people within their homes and includes physical, psychosocial, palliative and spiritual interventions (WHO, 2002).

Intervention group: A subset of the sample that receives an experimental manipulation in which the researchers are interested.

Involvement: The act of taking part in an activity, event or situation.

Longitudinal Design: One that measures the characteristics of the same individuals on at least two, but ideally more, occasions over time.

Palliative care: The active total care of patients whose disease is not responsive to curative treatment.

Posttests: A measurement in an experimental research taken after the intervention.

Pretest: A measurement in an experimental research made prior to the intervention and serves as a baseline to compare against a measurement taken after the intervention.

Social: Relating to activity that involve being with other people in the society.

Training: To give practical education in any professional way.

ABSTRACT

HIV and AIDS remains a major health challenge in major parts of Kenya including Kisii County where there is high HIV prevalence of 8.9% compared with national prevalence of 5.9 %. Home based care emerged as an effective method of providing cost-effective and compassionate care to those infected and affected with HIV and AIDS. The need to involve both men and women in home based care programmes has received several mentions in research. Despite this, the level of men involvement in home based care activities is still low compared to women, particularly in Kisii County. This is constrained by many factors including lack of training on home based care activities and socio-cultural practices. The main objective of this study, was to investigate effects of training men on involvement in home-based care for people living with HIV and AIDs in Kisii County, Kenya. The study was conducted in Nyaribari Masaba South, Bomachoge Borabu, Nyaribari Chache and Bochari Sub-counties in Kisii County. A non-equivalent group quasi experimental design was adopted in collecting data quantitatively from a sample size of 160 men using questionnaires and qualitatively using focus group discussions guides and key informant interview guides from 36 respondents. The study used multistage sampling techniques in selecting the study participants. Content and narrative approache were used to analyse the qualitative data. Quantitative data were analysed descriptively and inferentially using Statistical Package for Social Sciences version 21. The findings indicate that 35.00% had formal training in home based care activities, 38.75% possessed skills on home based care activities and 61.25% had knowledge of male involvement in home based care activities for people living with HIV and AIDS in Kisii County. Although men believed that most of home based care activities were to be done by women in the community, there was a change in attitude towards men involvement in home based care activities after training. The mean for the intervention group ($M= 3.74$, $SD = 0.24$) in the posttest was higher than that for the control group ($M = 1.65$, $SD = 0.37$) with regard to attitude scores indicating significant difference in mean attitude $F [(1, 157) = 2993.20, p < 0.01]$ between the groups. Men were to some extent involved in home based care activities, but the level of involvement increased significantly after training $F [(1, 157) = 3558.78, p < 0.01]$, with training explaining for 96% of the variance in involvement. The study also revealed that socio-cultural practices constrained the level of men involvement in Home Based Care activities. However, there was a significant difference in mean socio-cultural practices $F [(1, 157) = 166.13, p < 0.01]$ scores, with training explaining for 51% of the variance. Qualitative analysis reflected that training had effect on men, *"I used to depend on my wife to prepare food for us. Now that I have been empowered through the training in HBC, I am a changed person. I can cook for children*". The study demonstrates that training has effects on men involvement in home based care for people living with HIV and AIDS in Kisii County. Men can take proactive roles in home based care activities if their attitude and perceptions about socio-cultural practices can be changed through knowledge empowerment. The study therefore recommends interventions strategies that include training, education and raising social awareness among men on the importance of involvement in home based care activities.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The global Human Immunodeficiency Virus (HIV) pandemic is an unprecedented threat to human health and development. An estimated 36.7 million people worldwide were living with HIV in 2016 hence the need for increase in care and support. Sub-Saharan Africa remains the most heavily affected region in the global HIV epidemic with an estimated 19 million people living with HIV, representing 46% of the global HIV burden (United States Agency for International Development [UNAIDS], 2017). HIV and AIDS pandemic remains a major public health and development challenge in Kenya. Up to 1.5 million Kenyans were infected by 2015 and an estimated 36 000 people died of AIDS-related causes in 2015, slightly more than one-third the annual numbers who died in 2002–2004. In Kisii County by 2011 there was a prevalence of HIV and AIDS 8.9 % (National AIDS Control Council [NACC] & National AIDS and STI Control Programme [NASCOP], 2011).

People living with HIV/AIDS (PLWHAs) need antiretroviral treatment, treatment for opportunistic infections, home-based care, food and nutritional support, general nursing care and emotional support. In most hospitals in Kenya, AIDS patients occupied 60% of the beds (NASCOP, 2005). As public health systems in most developing countries do not have the capacity to provide the necessary care and support, most people living with HIV and AIDS turned to family, neighbours and friends for care (Campbell & Foulis, 2004).

Public health systems were failing to deliver citizens' right to health, and as a result women and girls were responding to this need, and filling the vacuum. Care for people with AIDS was hampered by shortages of hospital beds, inadequate numbers of public sector health professionals, lack of resources for treatment and drugs, and the increasing demands of curable conditions on existing hospital care (UNAIDS, 2015). As a result, the burden of care had fallen on family members especially on women (Kimanga *et al*., 2014).

Home-based care (HBC) emerged as an effective method of providing cost-effective and compassionate care to those infected and affected with HIV and AIDS. HBC is not a replacement for hospital care but instead is part of a comprehensive continuum of prevention, treatment and support services that include family, community and various levels of health care providers (Pathfinder International, 2008). HBC creates community awareness on issues surrounding HIV and AIDS. It creates opportunity to clarify myths, reduce stigma and empower those infected and affected by HIV and AIDS. The Government of Kenya through the Ministry of Health (MoH) has adopted a comprehensive HBC strategy that embraces a team approach to the care of people living with HIV and AIDS. The comprehensive HBC concept requires a complete mix of health workers- physicians, nurses, pharmacists, counsellors, social workers and patients. It is a collaborative partnership of the PLWHAs, the family, the community and the health facility all working together for the well-being and good health of the PLWHAs (Kimanga *et al.*, 2014).

Efforts were started to develop formal support structures for those offering HBC. Most existing efforts to build formal HBC initiatives were still in their infancy and were still in the 'trial and error' stages of learning (Campbell & Foulis, 2004). Furthermore, many HBC initiatives appeared quite precarious, functioning from hand to mouth, and with little external support. There are several community-based organizations, projects and programs supporting HBC in Kenya. Significant progress has been made in Nyanza towards developing an integrated model of HBC (Jones, 2006).

When a family member is infected with HIV/AIDS in the house, women and girls provide most of the care to the ill, as expected by society. Globally, up to 90 per cent of such care is provided in the home by women and girls (Akintola, 2004). According to Kenya AIDS NGOs Consortium [KANC], (2006), there was low male involvement in HBC activities in Kenya. Therefore, the aim of this study is to determine effects of training men on HBC involvement for PLWHAs.

1.2 Statement of the Problem

Many public health systems in developing countries are weak and the HIV and AIDS pandemic have brought an already simmering crisis to the boil. HIV prevalence has an increasing rate in Kisii County with 8.9%. The prevalence among women was at 8.5 % which was higher than that of men of 7.3 % and the county registered 4,891 new infections every year. According to NACC (2012), 86% of children living with HIV in Kisii County in need of antiretroviral therapy (ART) are not under treatment, while 64% of those testing positive in Kisii County, delayed before joining a care and treatment programme. Kisii County contributed to 2.2% of the total number of people living with HIV in Kenya, and is ranked eleventh nationally. By the end of 2015 a total of 34,014 people were living with HIV in the County. Approximately 118 children and 594 adults died of AIDS-related conditions in 2015(NASCOP, 2016).

The community and home based care were delivered with majority women involved with stigmatization and discrimination, few men took part as the key response to the HIV and AIDS pandemic in Kisii County (NASCOP, 2016).Traditionally, women have been at the forefront of taking care of the sick within the community including people living with HIV and AIDS. Globally, according to Jessica *et al.* (2013), men provide only 10% of such care. Throughout Africa, responsibility for caring for the sick in the home falls to women (WHO, 2002). In Kenya, HIV and AIDS patient primary caregivers are also women with no training in nursing the sick (Kimanga *et al.*, 2014). As a result, women and girls are being over-burdened with taking care of AIDS patients (Onyango, 2009) and many of them have left work (both formal and informal) and school to provide this care. Most have taken this role in addition to roles in day to day productivity endeavours.

But as HIV and AIDS take its toll, it is becoming apparent that women alone cannot shoulder the responsibility of HBC, they need their male counterparts to complement their efforts. Men involvement in HBC has received insufficient attention from researchers, policymakers and programme designers and it has been a long struggle to have it recognized as a legitimate public health issue. Several studies have been

done on factors influencing male involvement in HBC activities for people living with HIV and AIDS in Kenya (Wangui, 2003; Makori *et al.*, 2011; 2012*).* A study done in Kenya found that few men are involved and few trained (3%) in HBC (Abuki *et al.,* 2013). However, there have been few documented programs and little research into the effects of training men to increase their involvement. There is need to address the glaring gap of men involvement in HBC efforts to effectively respond to the HIV and AIDS pandemic and reduce women the care burden in Kenya. Therefore, this study aims to determine effects of training men's involvement in home-based care for people living with HIV and AIDS in Kisii County, Kenya.

1.3 Justification of the Study

Poverty levels pose a major challenge in affordability of hospital bills and other expenses such as transport for patients and family members to and from hospital (WHO, 2002). This attracts the need for home-based care which from this perspective would be seen as an affordable means. However, in several areas in Kenya where HBC has so far been introduced, there is gender disparity. Programs targeting increased involvement of men in HBC would help reduce women's tasks of HBC.

Prevention and care interventions of HIV and AIDS recognize the importance of men involvement as part of the strategy for implementing sustainable community home-based care grassroots interventions. Home-based care is an appropriate patient support approach to care. Indeed, many people prefer to be cared for in their home and communities. In view of the fact that limited research has been done in this area on the effect of training men involvement in HBC, this study will determine effects of training men involvement on HBC activities for PLWHAs and sensitized them thereby improving their practice on the same. The outcome of the study could be useful to home-based care services to improve on men involvement on HBC activities. It would also encourage and augment male involvement in HBC for PLWHAs.

The greater involvement of men in delivering community and home-based care would be a crucial response towards strengthening HBC in the fight against HIV and

AIDS, also in reducing the burden on women. Therefore, HBC system needs to be strengthened to achieve adequate coverage, as many Kenyan communities have little or no access to care at this level. Furthermore, the quality, effectiveness and sustainability of home-based care services were cause for concern as reported in NASCOP, (2004). If gender inequalities and the burden of community and home-based care are not addressed comprehensively now, women and girls are likely to carry the unsustainable burden of care as the pandemic escalates. In Kenya, this will make it difficult to achieve Sustainable Development Goals, Number 5; achieve gender equality and empower women and girls (United Nations, 2017). Male involvement could be for better access and equity in the HIV response. Everybody has the responsibility of protecting young women and adolescent girls from HIV, from policymakers to community leaders. We need to identify men as role models to mentor young men (UNAIDS, 2016).

This research was to evaluate whether training have effect on men involvement in HBC activities by empowering them with HBC knowledge and skills hence encourage them to increase their involvement. The findings of this study are envisaged to benefit women by reducing them the burden of care. These study findings also are significant to the men population in Kisii County more so in understanding the benefits of taking control, reducing stigmatization, challenging harmful gender norms and any other social perceptions with the involvements. The study came up with a guideline for training men in HBC involvement which can be borrowed for use. Therefore, to contribute to the relevant policy and legislative interventions necessary for improvement towards male involvement for people living with HIV and AIDS in Kenya.

1.4 Research Questions

1. What is the knowledge of men in home-based care practices for people living with HIV and AIDS in Kisii County, Kenya?
2. What are the attitude of men towards home-based care involvement for people living with HIV and AIDS in Kisii County, Kenya?

3. What are the effects of training men on extent of involvement in home-based care for people living with HIV and AIDS in Kisii County, Kenya?
4. What is the influence of training on socio-cultural practices related to men involvement in Home-based care for People living with HIV and AIDS in Kisii County, Kenya?

1.5 Objectives

1.5.1 General Objective

To determine effects of training men on involvement in home-based care for people living with HIV and AIDS in Kisii County, Kenya**.**

1.5.2 Specific Objectives

1. To determine knowledge of men on home-based care practices for people living with HIV and AIDS in Kisii County, Kenya.
2. To assess attitude of men toward involvement in home-based care for people living with HIV and AIDS in Kisii County, Kenya**.**
3. To determine effect of training men on extent of involvement in home-based care for people living with HIV and AIDS in Kisii County, Kenya**.**
4. To establish influence of training on socio-cultural practices related to men involvement in Home-based care for people living with HIV and AIDS in Kisii County, Kenya.

CHAPTER TWO

LITERATURE REVIEW

2.1 HIV and AIDS Overview

The global HIV pandemic is an unprecedented threat to human health and development. An estimated 36.7 million people worldwide were living with HIV at the end of 2015 hence the need for increase in care and support. Sub-Saharan Africa remains the most affected region in the global AIDS pandemic. It is estimated that 19 million people are living with the virus. HIV and AIDS pandemic remains a major health and development challenge in Kenya with estimated 1.5 million people living with HIV and AIDS. The prevalence rate in Kenya is estimated to be 5.9% in 2015, each year there are 78 000 adults and children newly infected (UNAIDS, 2016).

Despite these reported decrease, the magnitude of the pandemic in Kenya is under age 15. Due in large part to the AIDS pandemic, life expectancy in Kenya has dramatically decreased from 60 to 50 years in 2002 (Kimanga *et al*., 2014)). The Ministry of Health estimates that 1.6 million children have been orphaned due to AIDS and 1.25 million adults and 120 000 children are living with HIV (Anderson *et al.,* 2014). The pandemic is fueled by age differences between male and female partners, high rates of sexually transmitted infections (STI), limited health facilities and a falling gross domestic product.

HIV prevalence has an increasing rate in Kisii County with 8.9%. The prevalence among women was at 8.5 % which was higher than that of men of 7.3 % and the county registered 4,891 new infections every year. According to NACC (2012), 86% of children living with HIV in Kisii County in need of antiretroviral therapy (ART) are not under treatment, while 64% of those testing positive in Kisii County, delayed before joining a care and treatment programme. Kisii County contributed to 2.2% of the total number of people living with HIV in Kenya, and is ranked eleventh nationally. By the end of 2015 a total of 34,014 people were living with HIV in the County. Approximately 118 children and 594 adults died of AIDS-related conditions in 2015(NASCOP, 2016).

Many public health systems in developing countries are weak and the HIV and AIDS pandemic have brought an already simmering crisis to the boil. One study showed that less than 14% of home-based care services for people sick with AIDS related illness were supported by the public health system (Anderson *et al.*, 2014). Generally, there has been a decline in number of health facilities and health care workers in Kenya (through illness, migration, career changes and fewer choosing to enter the health profession), and poor conditions and opportunities for remaining health care workers. Inadequate supply and distribution of medicines; weak management systems and insufficient infrastructure of clinics, hospices, laboratories and hospitals were also common place in Kenya. Furthermore, user fees created barriers to available health care (Voeten, 2006).

Public health systems were failing to deliver citizens' right to health, and as a result women and girls were responding to this need, and filling the vacuum. Care for people with AIDS was hampered by shortages of hospital beds, inadequate numbers of public sector health professionals, lack of resources for treatment and drugs, and the increasing demands of curable conditions on existing hospital care (UNAIDS, 2015). As a result, the burden of care had fallen on family members especially on women (Kimanga *et al*., 2014).

2.2 Home-Based Care in Response to HIV and AIDS

Home-based care is not a new concept in African tradition and for them looking after the sick was considered a social responsibility. This is even more so for Sub-Saharan Africa, where family care giving is traditionally considered a role exclusively reserved for women (Kipp *et al.*, 2006). In most countries, women bear the largest burden, as young girls are sometimes withdrawn from school to take care for infected family members. Older women often take care of adult children when they are in terminal AIDS stage and take over the care of their grandchildren (Lindsey *et al.*, 2003). According World Health Organization (2002) HBC is the provision of health services by formal and informal caregivers in the home in order to promote, restore and maintain a person's maximum level of comfort, function and health including care towards a dignified death.

Chabinga (2002) identified various types of community/home-based care and support for people living with HIV and AIDS. Firstly, there were home visiting programmes which mobilized volunteers to visit AIDS patients in their homes, educating caregivers and family members about basic care issues, assisting with household chores, accompanying patients to medical appointments and providing psychological support. Secondly, there were comprehensive HBC programmes. These were often administered by professionally trained staff and involve educating family members in palliative care, and linking them to referral networks of health facilities and welfare agencies. The third, is where family members care for dying relatives by default, in the absence of any training or support.

Home-based care is an important and appropriate patient supported approach to care, indeed, many people prefer to be cared for in their home and communities (UNAIDS, 2015). Currently, community and home-based care is delivered with little support from the public health system and it being the key response to the HIV and AIDS pandemic globally. A report in 2004 showed that 90% of care for people living with AIDS takes place in the home (UNAIDS, 2004), which concurs with a study done in Zambia that 90% of interviewees prefer home-based care (Action Aid, 2001). This care is provided by community caregivers who are predominantly older women and young girls, and are usually unpaid, unsupported and unrecognized (Lindsey *et al*., 2003). It is women who are particularly vulnerable; 75% of people living with HIV and AIDS in Sub-Saharan Africa are female (UNAIDS, 2005). Women in Kenya are more vulnerable to HIV infection compared to Kenyan men with the national HIV prevalence of 8% and 4.3% for men (MOH (Kenya) *et al.,* 2010).

Several studies have been completed on different HBC perspectives in Africa. Most studies on HBC in sub-Saharan Africa have been done in Kenya, Tanzania, Uganda, Zimbabwe, Zambia, Botswana, Malawi and South Africa (Mugo *et al.,* 2012). Most are descriptive in nature. They relate in some way to the strain and hardship facing caregivers, care burden, and the challenges of creating individual, family, household, community and social contexts that enable rather than hinder them from performing their role.

The Namibian Government's National Policy on Community-Based Health Care (Ministry of Health and Social Services [MOHSS], 2008), set a good example for other countries in the Southern African Development Community (SADC) region. A review of the Community Home-based care (CHBC) Policy and Guidelines conducted by South African-based umbrella group Gender and Media Southern Africa highlighted that Namibia's policy on Community and Home-Based Care is indeed the first of its kind in southern Africa. The policy calls for a monthly incentive for care providers of N$250-N$500, and in addition stipulates that all care providers should receive an identity card, T-shirt, shoes, umbrella, a home-based care kit, transport, and communication funds. The Government has committed to re-training all care providers using a standardized manual, and to accrediting those who pass the training through the Namibia Qualifications Authority.

The Ministry of Health and Social Services (MOHSS) requests that all CHBC organizations promote stress-management techniques, provide peer counselling, and establish a support network. The policy also sets out roles and responsibilities at government and local levels. Importantly, the policy acknowledges the gender disparity in care work and emphasizes the need for more male involvement in the provision of care (MOHSS, 2010). Although, a recent VSO study has demonstrated, however, whilst the policy is currently the best in the SADC region, its implementation has been poor or entirely lacking, and little has been done to get more men involved in CHBC, or to address the root causes of low male involvement (Bautista, 2012).

The Kenyan government identified HBC as key priority area for development and released National guidelines for HBC in December 2001 (NASCOP, 2002). These guidelines provide a very general outline of the values that should inform the organization and provision of HBC and the stakeholder who should be involved. However, much work remains to be done on how to put their values into practices and how to promote effective partnership between stakeholders with very different skills, needs and interests.

2.3 Male Involvement in Home-based Care for People Living with HIV and AIDS

It is important to note that while women and girls undertake the vast majority of care, men and boys are beginning to take on some of these responsibilities; there are an increasing number of men and boys who are providing care. However, there is still a significant number who do not engage in care giving roles and little empirical studies exist to investigate on effective ways of involving men in HBC activities.

Several studies in Africa indicate that men are not involved in HBC activities. Two thirds of primary caregivers in households surveyed in Southern Africa were female, one quarter of these were over 60 years of age (UNAIDS, 2004). A South African national evaluation of home-based care found 91% of caregivers were women (Southern Africa Partnership Programme, 2005). In the same study, only 1 out of 21 of the primary caregivers were men. Furthermore 36 of 38 volunteers working for a home-based care programme in the Midlands Province of Zimbabwe were women.

A study by McNairy *et al.* (2014) in Botswana indicated that majority (55%) of households of critically ill were headed by females and the remainder 44% were male headed. This means that the proportion of households with critically ill persons was higher among female-headed households relative to their male-headed counterparts. This testifies to the fact that females tend to be the major caregivers in our society. Similarly, in Zimbabwe the red cross reported in 2002 that home-based care givers on male to female ratio was 1:10 and Zambia copper belt, one of the areas hardest hit by HIV and AIDS, 90% of caregivers were females (UNAIDS, 2013).

Other studies have also shown that low male involvement in home-based care interventions has been reported by health workers and service providers both at institutional and community grassroots levels (Kavuma *et al*., 2004). They identified social factors, economic factors, cultural factors, lack of accurate information and knowledge as the major factors influencing male involvement in HBC. A pioneering study in Malawi has had some success in mobilizing men as volunteer home-based caregivers, although the authors emphasize that many challenges remain (Mermin *et al.*, 2011).

2.3.1 Knowledge on Male Involvement in Home-based Care for People Living with HIV and AIDS

Knowledge in HBC remains fundamental especially in developing economies. However, knowledge among the members of local communities in Kenya remain Scanty; there is lack of adequate knowledge on Home-based care services and lack of empirical research evidence on knowledge about home-based care services among HIV patients in Kenya (Wesonga, 2015). Men still look down on care giving, and this may be due to lack of information on what the field entails. Within the community, care giving is still portrayed as woman's work, and for this to change, more information and education should be given to men and the community. In the absence of ART in poorest settings, women were already experiencing burnout. The male involvement initiative within the HBC programmes emerged from the realization that women were shouldering the burden of care for sick family and relatives (World Food Programme [WFP], 2006). To lighten the burden of care on women, several HBC donor agencies have embarked on training men as caregivers. The male caregivers initially targeted only male clients to assist with bathing clients where there was a need (De Cock, 2015). Home-based care training has been observed to be important for family members who are taking care of their relatives living with HIV and AIDS.

A study done in South Africa to articulate effective strategies to address masculinity and HIV issues having five men found out that the males feel that men need to be sensitized towards home-based care, and that more information about the field should be made available to them (Kimanga *et al*., 2014). A Voluntary Service Overseas Regional AIDS Initiative of Southern Africa (VSO RAISA) study of male involvement in CHBC in Malawi, Zambia and Zimbabwe documented the positive outcomes: increased knowledge and openness about HIV and AIDS and gender among men, reduced stigma and discrimination of PLWHA by men, a reduced burden of care on women and girls, improved coverage and quality of CHBC (Campbell & Macmillan, 2012). A study done in Tanzania highlighted that majority of care givers believed they had inadequate knowledge (Malale, 2011). Lack of

accurate information and limited access to information and services on HIV/AIDS by men, mainly because HIV/AIDS awareness has been conducted through health facility-based programmes such as reproductive, maternal and child health services. Men may not have the skills to provide home-based care and support, such as cooking, washing clothes, childcare and treating and washing insecticide- treated nets for malaria prevention. These tasks are usually learnt and performed by women (John Snow International and Southern Africa AIDS Information Dissemination Services [JSISAAIDS], 2005). A study done in Kenya found out that the majority of the respondent (63.7%) were aware of the existence of Home-based care for HIV and AIDS patients in Kenya (Wesonga, 2015). However, in another study also done in Kenya found that the reason for few men being in HBC was lack of knowledge and skills, and only minority (3%) of men have been trained on HBC services (Abuki *et al.,* 2013).

2.3.2 Attitude on Male Involvement in Home-based Care for People Living with HIV and AIDS

To create a more just global order and to challenge destructive models of hegemonic masculinity, it is obviously important that men begin to share the burden of care and support in the places where it is currently done primarily by women. This requires that we understand men's attitudes towards care and support as a first step to engaging them in taking action. To date very little research has been done on men's attitudes towards care and support activities. As a result, much of the data presented on men's attitudes and behaviour has been learned from research conducted with women. Some recent research conducted in Southern Africa to understand men's attitudes towards care and support contradicts what had been considered common knowledge and provides room for some optimism (Mermin *et al.,* 2011).

Evidence from Zimbabwe and other African, Caribbean and Asian Countries demonstrated that men are committed to and can play an important role in the health of their families. However, prevailing attitudes about appropriate male behaviour often discourage caring and nurturing behaviour on the part of men (Aggleton & Warwick, 1998). In a case study of the Combined Oxfam Gender and HIV and AIDS

Program in Zimbabwe reported that many male caregivers have encountered various forms of resistance to their work although attitudes appear to be slowly changing, which is a positive result of the program but also an ongoing challenge (Roper, 2009).

In a study conducted in South Africa reported different findings indicating that men were willing to participate in antenatal care but felt they didn't have the necessary skills (Kunene, 2003). It also identified service provider attitudes as a significant barrier to men's involvement with some female nurses opposed to men's involvement. Another study done in South Africa found out that general participants expressed positive attitude to the treatment of Aids patients and felt that people living with HIV were being cared for within their families. However, they reported more negative attitude to those living with HIV by the general community. There was gender difference in terms of attitude towards people living with HIV and AIDS. Compassion and hopelessness seem to be more common among women than men (Ndindu *et al.,* 2007).

A study done in Namibia found out that attitude toward CHBC result from beliefs regarding gender roles and male anxiety about how they can express their masculinity in a shifting world that now requires them to take on tasks long perceived to belong to women's domain (Campbell, 2012). However, in the same country a study found that there was good understanding and knowledge about HBC services and that has facilitated the positive attitude towards the HBC service (Oguntibeju, 2011). While a study done in Kenya found out that still the communities in general reacted negatively with regard to the care of PLWHAs (Nga'nga *et al.,* 2014) and another study done in Kenya reported community having negative attitude on male involvement in HBC activities for people living with HIV and AIDS (Makori *et al*., 2011).

2.3.3 Extent of Male Involvement in Home-based Care for People Living with HIV and AIDS

Male involvement range and depends on the individual person, the type of work/activities and the traditional gender roles. Men's involvement in women's health has been a source of much interest in the past recent years. According to Jessica *et al*. (2011), the topic of men's involvement is also complicated by the wide range of terms used in the literature to qualify it. The terminology used does not matter as long as the purpose is to describe the process of social and behavioural change that is needed for men to play more responsible roles in HBC. A further challenge is posed by the difficulty of measuring men's involvement. According to the Horizon programme (2003), measuring the ideal degree of involvement is very difficult because male involvement is so couple specific.

A study done in rural setting eastern Zimbabwe that mobilized and trained 120 men HBC workers and an evaluation was done after 18 months from the time of training, found out that men are willing to play a practical role in promoting the health of their families, neighbours and communities; Men can be effective home-based care volunteers, capable of providing nursing care, psychosocial support, and assistance with household chores to affected individuals and households; and men accept that providing care to people living with HIV and AIDS and other chronic illnesses is an appropriate and acceptable behaviour. However, the male voluntary caregivers had difficulties to move beyond their comfort zone to provide certain nursing care. Practices that were within voluntary caregivers' comfort zone that are traditionally performed by men were found to be more effectively and consistently implemented. These included patient counselling, spiritual support and exercising the patient. Skills that are not traditional assigned to men were less readily undertaken including bathing, wound care and feeding (Hall *et al.*, 2006).

A study done in Uganda indicated that men rarely assist with care giving because they are involved in formal or informal activities to earn an income for their families. However, when they assist like bathing patients, cleaning and treating pressure sores, women caregivers often felt uncomfortable 1s opposed to when men assist with

hospital visits and arranging transport for the sick (Mermin *et al*., 2011). Also a study done in Kenya established the level of male involvement in all the 4 HBC services namely clinical care, social support, nursing care and counselling as outlined in the HBC policy for Kenya. The study findings revealed that the most provided form of care was counselling (60.7%) while the least reported HBC service reported as provided to PLWHA was clinical care (19.3%) and (15%) of the men did not provide any HBC services (Abuki *et al*., 2013).

2.3.4. Socio-Cultural Practices on Male Involvement for People Living with HIV and AIDS

Both men and women are socialized to gender roles from childhood, and thus play a role in the promotion of the ideas about femininity and masculinity. Men who do not conform to societal expectations face stigma, discrimination and violence (Willan, 2002). According to UNAIDS (2015) in many societies, culture and traditional gender norms influence people's attitudes towards sex, sexuality and risk taking. Due to traditional gender norms and unequal relations, it is the women and girls in the communities who have become caregivers, whilst often needing care themselves, and possibly being HIV positive.

These traditional gender norms also provide social barriers to men and boys becoming caregivers, exacerbating the burden for women and girls (Kavuma *et al*., 2004). The spread of HIV and AIDS is fuelled by gender-based socio-cultural, legal and physiological factors. At the root of all this is gender inequality. It's clear that some culture norms play an important role in limiting men's involvement. It is important not to see culture as immutable or monolithic.

According to Zhan (2004), a study done in China, cultural values were predictors of caregiver's behaviour, described how Chinese caregivers are influenced by the Confucian norms where obedience provision and care towards the parents and/or other close relatives has always been emphasized. In an interview conducted in late 2001, Men as Partners educators working in urban and rural areas of South Africa described the impact of community norms that deter men from becoming involved in

HBPC activities regarding as women's work (Peacock, 2003). Also, in study in South Africa indicated that men identified traditional gender roles and the fear of losing respect from their peers as a significant deterrent to participating in care and support activities (Kruger, 2003). Additionally, some men identified being afraid or embarrassed to become associated with HIV and AIDS as well and said their partners were worried others would accuse them of being lazy, incompetent or even of bewitching their husbands.

Kavuma *et al*. (2004) identified cultural factors to be among the major factors influencing male involvement in HBC activities. Some socio-cultural norms prevent both women and men from obtaining critical information about HIV and AIDS, such as the culture of silence and taboo around sexual matters in some cultures. In a study done in South Africa showed that male caregivers appeared to care deeply and altruistically for their patients and appeared to provide gender-appropriate care for male patients. Female patients were wary of being cared for by a man, for example having concerns that male caregivers may perpetrate physical abuse, including rape. Thus, challenges of being a male caregiver included the potential to not be appreciated by and/or to be subject to physical and verbal abuse from the community they serve (Campbell, 2012).

A study done in Botswana explored the literature with intent to raise attention to the perfidiousness of the experiences of men as palliative caregivers of people living with HIV/AIDS and other terminal illnesses. The article utilized eclectic data sources in Botswana and elsewhere. The findings indicate that care giving position of men has been found beset by retrogressive gender unfriendly cultures; patriarchy; weaker gender empowerment campaigns; and inadequate male involvement in care. However, a study done in Botswana indicated that some caregivers thought that due to the unwillingness of men to help women in care giving, training sessions specifically tailored for men could possibly help change their mind set and overcome the stereotypes and cultural norms that discourage their participation to caring tasks (Kang'ethe, 2010; 2015). But a study done in Kenya revealed that male involvement in HBC variables were negatively correlated with socio-cultural variables. Full

participation of males in home-based care for people living with HIV and AIDS was hindered by the current socio-cultural constraints (Makori *et al.*, 2011).

2.4 Conceptual Framework

Based on the literature review the following diagrammatic concepts (Figure 2.1) was identified and put in the conceptual framework in operationalized form. In the below framework, the independent variables in this study were men's knowledge on HBC, men's attitude towards HBC and socio-cultural practices. These are believed to determine the extent of men involvement in HBC activities (dependent variable) for people living with HIV and AIDS. The diagram represents this relationship for both control group and intervention group. However, training on HBC is introduced as an intervention for the intervention group. Knowledge was evaluated using men's awareness on HBC, HBC skills possessed by men and general awareness of men involvement in HBC activities for people living with HIV and AIDS. Attitude was assessed by the attitude of men towards HBC activities for people living with HIV and AIDS. Socio-cultural factors were indicated by discrimination, stigma, norms, beliefs, taboos and embarrassment. Male involvement was measured in terms of extent of involvement in HBC activities namely; counselling and spiritual support, first aid, cook and feed, patients follow ups, fetch water and general cleaning, bed bath patients and physical support.

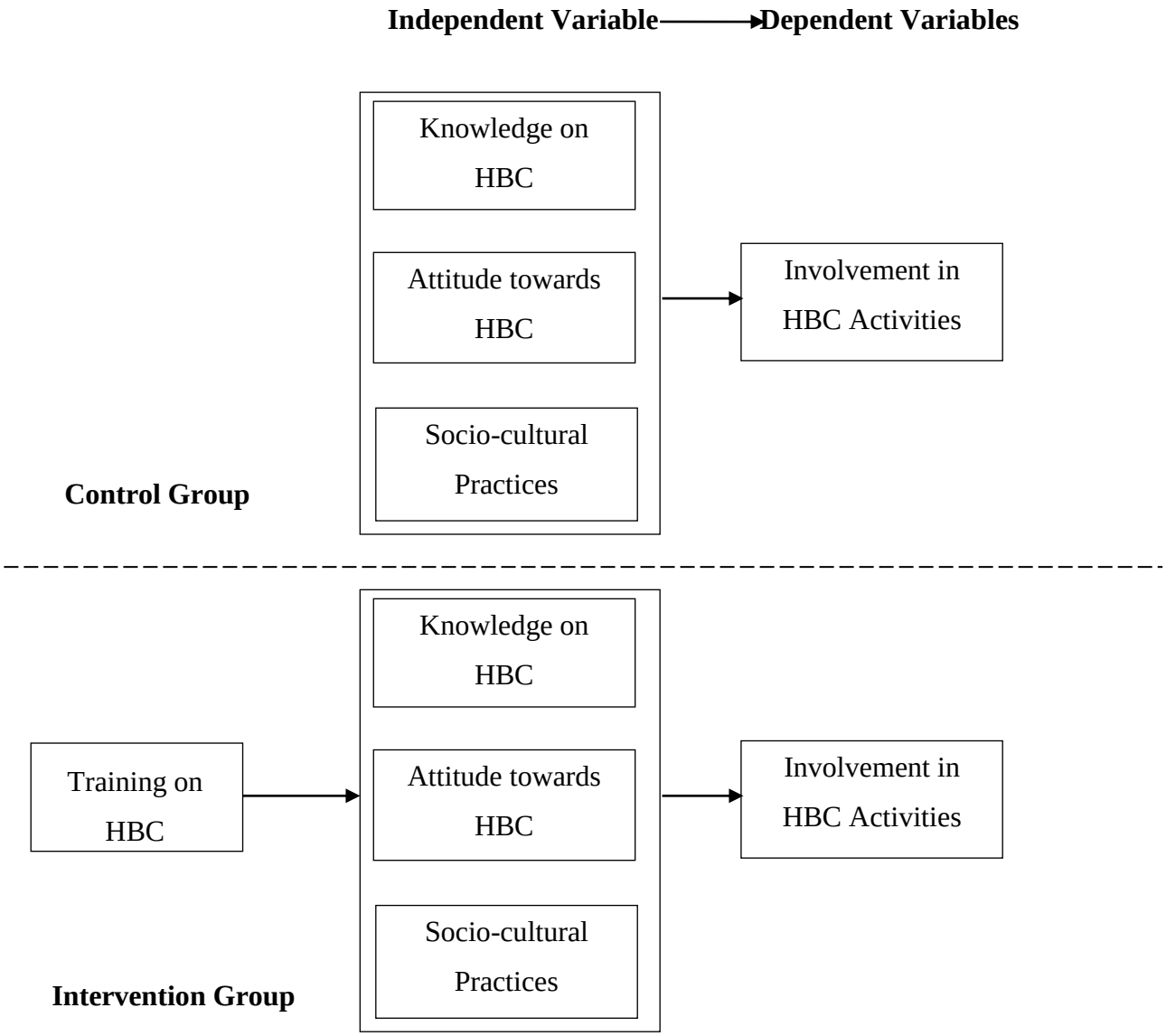

Figure 2.1: Conceptual framework for control and intervention groups

CHAPTER THREE

MATERIALS AND METHODS

3.1 Study Area

This study was carried out in Nyaribari Masaba South, Bomachoge Borabu, Nyaribari Chache and Bochari Sub-Counties in Kisii County located in western part of Kenya on Latitude 0 41'0 S and Longitude 34 0 46'0 E. The county has nine sub-Counties namely; Kitutu Chache South, Kitutu Chache North, Bomachoge Chache, Bomachoge Borabu, Nyaribari Chache, Nyaribari Masaba South, Bochari, Bobasi and South Bogirango (Figure 3.2) Approximately 1/3 sub-counties (4 out of 9) were purposively selected. The distant between them acted as a buffer to blind the participants in the intervention and control groups. Kisii County has a total population of 1,152,282, 48% male and 52% female. While the total population of each sub-counties selected namely Nyaribari Masaba South was 122,087, Bomachoge Chache was 107, 199 and Bochari was 38,749.The county has a number of programmes such as Afya Plus Kamili, Chagua Maisha, Care Kenya, Mwanyagetige-RED Cross, Enabling Sustained Health Equity (ESHE) that focuses on PLWHAs. According to the county integrated development plan of 2018-2022, the County also partners with other stakeholders in stigma reduction campaigns; risk reduction counselling and skill building; male and female condom demonstration and distribution; mother to child transmission prevention campaigns and free counselling; testing and free administration of antiretroviral drugs.

The County was chosen because of the high HIV prevalence of 8.9% compared with National prevalence of 5.9 %. By the end of 2011, there were 72 992 people living with HIV and 7,715 of whom are children in Kisii County. The prevalence among women was at 8.5 % which was higher than that of men of 7.3 % and the county registered 4,891 new infections every year. According to NACC (2012), 86% of children living with HIV in Kisii County in need of antiretroviral therapy (ART) are not under treatment, while 64% of those testing positive in Kisii County, delayed before joining a care and treatment programme. The drivers of this epidemic include the rise in numbers of commercial sex workers, casual heterosexual sex as well as

some socio-cultural practices such as wife inheritance ('house entering practices'), where widows exchange sexual partners. Over the years, women living in the county have been more vulnerable to HIV infections than men. This can be attributed to male dominance in the Kisii community setting.

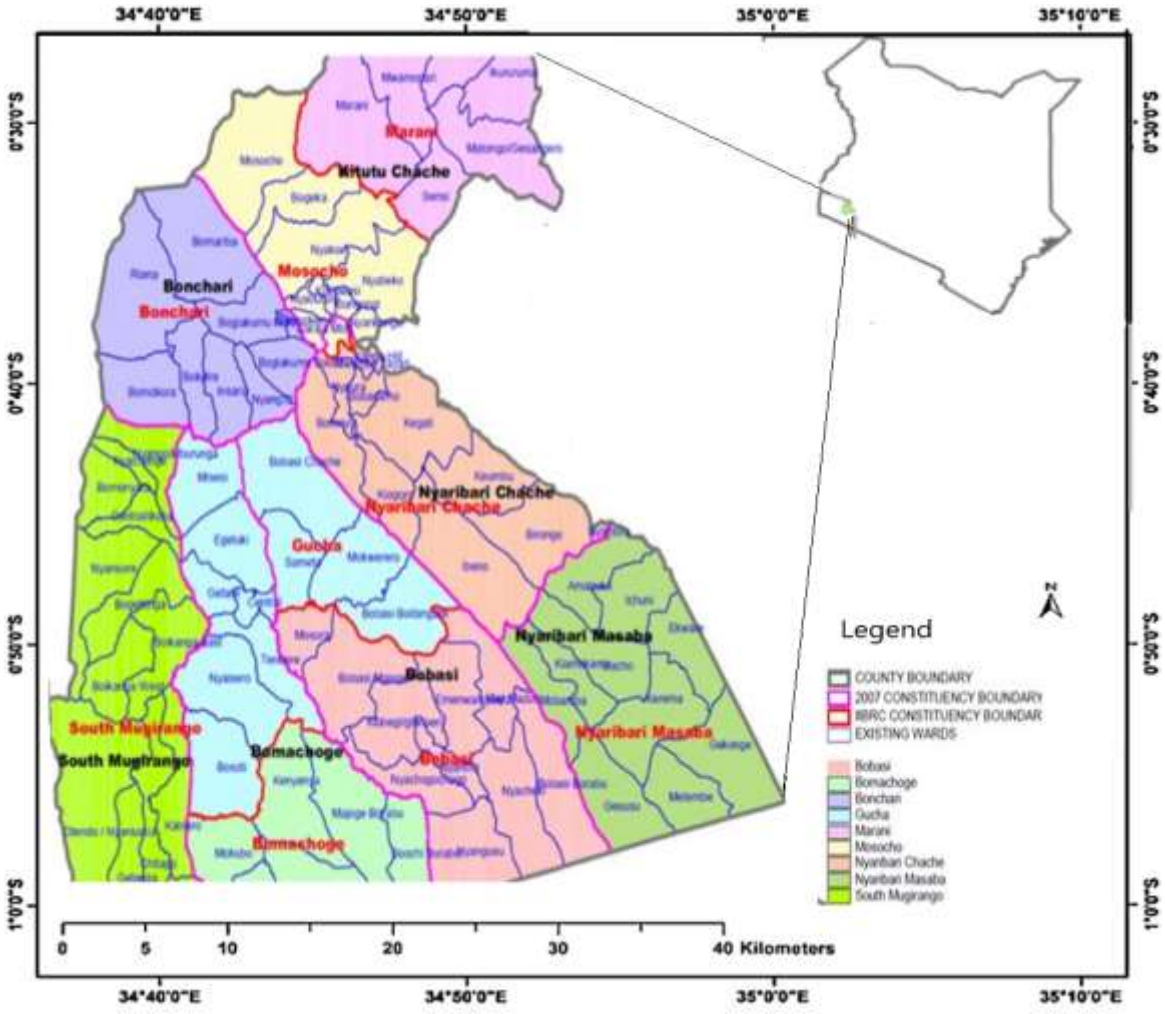

Figure 3.1: Map of Kisii County showing the nine sub-county

The inhabitants of Kisii County are predominantly Gusii speaking people with a small percentage of other ethnic groups. Gender parity in Kisii County is characterized by situation where women bear disproportionately large share of both domestic and agricultural work. Despite their large contribution to both family income and rural economy, women are faced with inhibitive cultural norms such as

traditional division of labour and exclusion of women in decision-making. Approximately 45% of the county is poor with the main sources of income; low subsistence farming, small- scale business and casual labour and many of the youth are not gainfully employed.

3.2 Research Design

The study used quasi-experimental design that adopted both quantitative and qualitative approaches in data collection and analysis. The design dictates performing a pre-test and post-test for the control and treatment/ intervention group. Given the nature and the setting of this study, randomization ability is very limited. The study therefore adopted a non-equivalent group design (NEGD), as the experiment lacked randomization. Figure 3 show the flow diagram for the design adopted.

The study recruited 160 men who were grouped into two groups: control (80 men) and intervention/treatment (80 men). A pre-test was done on both the two groups in form of a baseline survey. The pre-test provided the baseline information required and served as criteria for recruiting men involved. It also helped in describing and explaining the prevailing circumstances on extent of male involvement, knowledge, attitude, socio-cultural factors associated male involvement in HBC for PLWHA in Kisii County. The treatment/ intervention in this study involved training men on involvement in HBC activities for PLWHA. A total of 80 men were asked to self-select themselves for the training to form the intervention group. This group was therefore subjected to training while the control group wasn't. The HBC training materials were made based on HBC activities general guidelines in Kenya and from the findings of the baseline survey. The interventions were designed and implemented using a made guideline for training men on HBC involvement (Appendix IX). The standard home-based care activities were measured against general home-based care guidelines in Kenya. For effective training, the 80 men were divided into two groups to form a class of 40 men per group. Each class was trained, and training methods involved lectures, demonstration, role play, group discussions and practical experiences. Class illustrations were done by use of flip charts and posters among others for educating men.

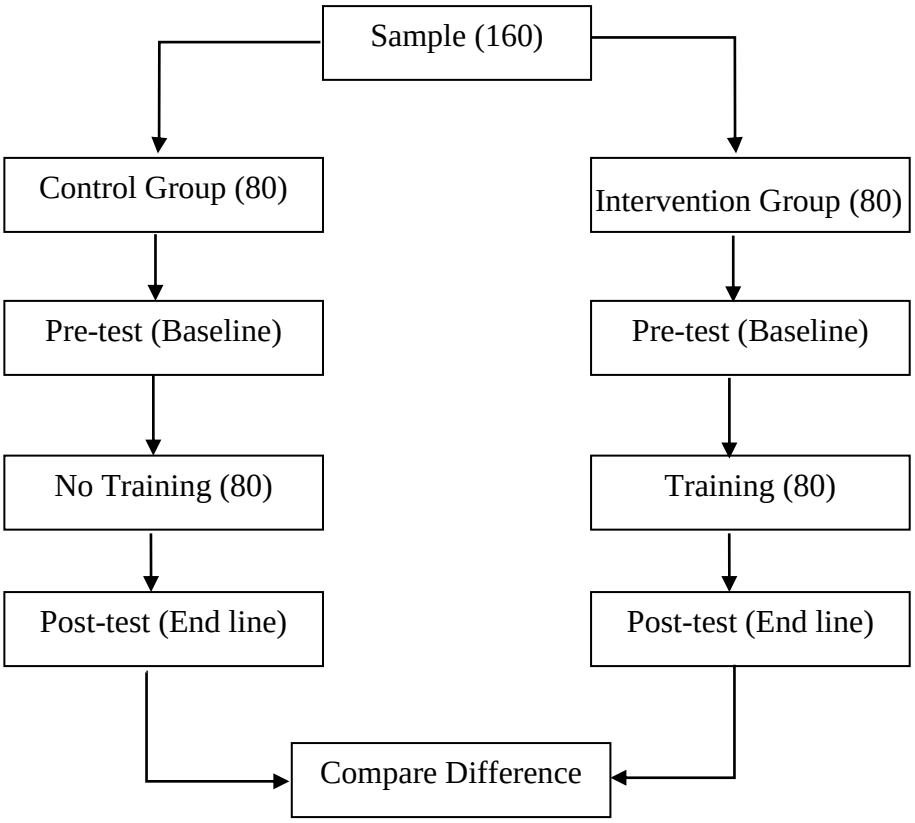

Figure 3.2: Non-equivalent group design for the study (Source: Author, 2018)

A three months window period was provided within which the trained men applied the knowledge and skills provided. After it was over, final survey of data collection using the initial protocol and tools were implemented for control and intervention groups. Post-test involved and end line/final survey of both the control and intervention group to evaluate the effects of training men involvement in home-based care activities for PLWHA.

3.3 Study Population

For the quantitative study, the population consisted of men who were staying with people living with HIV and AIDS. For the qualitative study, the population consisted of HIV/AIDS Support group leaders, religious, women leaders, HBC program staff/

managers and hospital administrators from the selected Health facilities and Non-governmental organization (NGOs) in Kisii County, Kenya.

3.4 Selection Criteria

3.4.1 Inclusion Criteria

The study targeted 180 participants. The participants were men staying with a people living with HIV and AIDS and residing in the area of study for the last six months before the time of study. They were active and healthy persons aged between 18 and 50 years and were able to participate in HBC activities. Only those participants who consented to participate in the study were considered. Eighty (80) of the target participants who self-selected themselves to the intervention group were subjected to training on HBC for PLWHAs to form the intervention group. The remaining 80 were not subjected to any training. HBC training focused on the following:

a) Facts already know about HIV/AIDS
b) Participants attitudes towards HIV/AIDS
c) Home-based care skills for people living with HIV/AIDS
d) The process of applying these skills in real situations.
e) The psychological impact of HIV/AIDS
f) Skills to transfer the nursing care skills to people living with HIV/AIDS.
g) Skills to transfer the general work and nutrition skills provided to people living with HIV/AIDS.
h) Socio-cultural practices surrounding men involved in HBC for people living with HIV/AIDS.
i) How to overcome the socio-cultural factors that hinder their involvement
j) Applying their skills back home and beginning home-based care services

3.4.2 Exclusion Criteria

Men who were not living with people living with HIV and AIDS because they would not have any person to assist and practice after the training. Those who were not residents in the area of study because they don't have the insight information on the study area as well as less than 18 years of age and above 50 years of age because they were not actively productive group to participant study. Those unfit or sick and did not consent to participate in the study. Women did not participate because they were not trained hence would not give direct inform before and after training to evaluate effect of training male involvement in HBC activities.

3.5 Study Variables

3.5.1 Independent Variables

Dependent variables included; men's knowledge on HBC activities, men's attitude towards HBC activities and socio-cultural practices related to HBC activities for people living with HIV and AIDs. Knowledge was measured by men's awareness on HBC activities, men's skills in HBC activities, me n's awareness on male involvement in HBC activities. Respondents were required to indicate with a "Yes" or "No" answer regarding their awareness, skills, training and awareness of male involvement in HBC activities. Attitude was assessed by the attitude of men towards involvement in HBC activities using a five-point Likert scale. Respondents were required to indicate their level of agreement based on six attitude items related to HBC activities. The continuum ranged from 1 = Strongly disagree to 5 = Strongly agree (Appendix IV). A value of five was given more weight.

Socio-cultural practices were also measured using a five-point Likert scale using 11 items related to socio-cultural practices and men involvement in HBC activities. Respondents were also required to indicate their level of agreement based on six attitude items related to HBC activities. The continuum ranged from 1 = Strongly disagree to 5 = Strongly agree (Appendix IV). A value of five was given more

weight. Respondents were also required to indicate socio-cultural factors constraining men involvement in HBC and ways to overcome the constraints.

3.5.2 Dependent Variable

Dependent variable was men involvement in HBC activities for people living with HIV and AIDs. It was also measured using 11 items regarding HBC activities. Respondents were required to indicate their extent of involvement in HBC activities using a five-point. The continuum ranged from 1= Not at all to 5 = Completely. A value of five was given more weight.

3.5.3 Experimental Intervention and Outcome

Training men on HBC activities was the experimental intervention. The outcome was extent of male involvement in HBC attributed to training. It was measured using significant mean difference between the control and intervention groups for post-test scores in attitude, socio-cultural practices and involvement.

3.6 Sample Size Determination

For intervention study the following Stanley *et al*., (1990) formula was used when indicator(s) of interest is presented in terms of proportion: -

$$n = \frac{\{Z_{1-\alpha/2}\sqrt{2p(1-p)} + Z_{1-\beta}\sqrt{p_1(1-p_1) + p_2(1-p_2)}\}^2}{(p_1 - p_2)^2}$$

Where p is the average of p_1 and p_2 = (0.1+0.2)/2= 0.15

p_1 was proportion of men involved in HBC in control group (or at baseline) =10%=0.1

p_2 was proportion of men involved in HBC in intervention group (or at final) =20%= 0.2

$Z_{1-\alpha/2}$ was standard errors from the mean corresponding to 95% confidence interval (1.96)

$Z_{1-\beta}$ was power of the test (1.28 for $\beta = 10\%$)

$$n = \{1.96\sqrt{2x0.15\ (1-0.15)} + 1.28\sqrt{0.1\ (1-0.1) + 0.2(1-0.2)}\}^2$$

$$(0.1–0.2)^2$$

n= 80

The sample size was 80 participants from intervention group and 80 from control group. The study therefore recruited 160 male participants.

3.7. Sampling Procedures

The study used multistage sampling techniques in selecting the study participants as depicted in Figure 3.4. Kisii County consist of nine sub-counties as already mentioned.

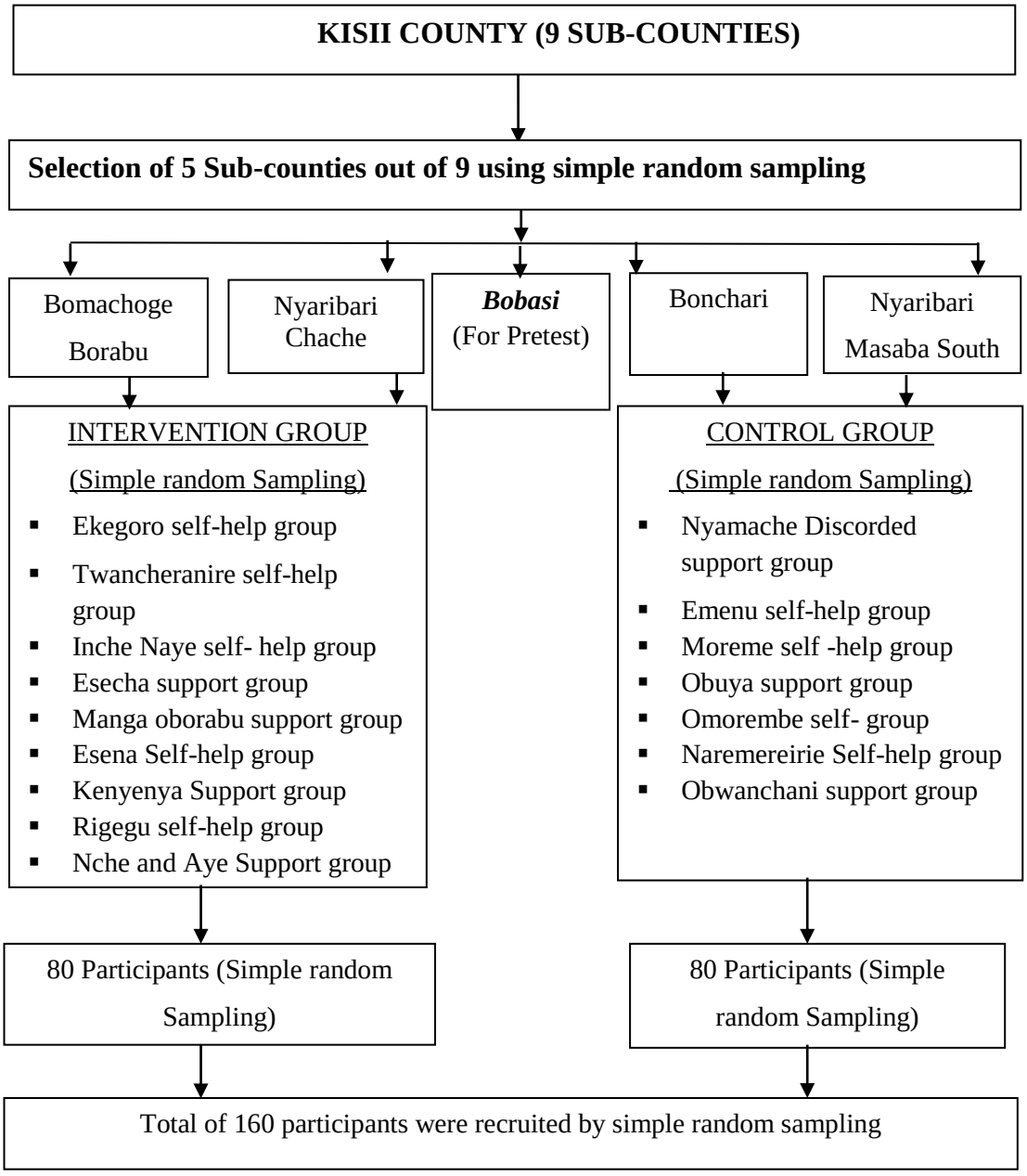

Figure 3.3: Sample selection and distribution for the targeted sub-counties (Source: Author, 2018)

First, the five sub-counties were randomly selected from the nine sub-counties, one of which was to be used in pre-testing the study instrument. Therefore, only four sub-counties were considered in the main survey. Secondly, a list of all the HIV and AIDS active support groups was obtained from Kisii County HIV/HBC Co-

coordinator. The study then used simple random sampling to select support groups from the four sub-counties. A further simple random sampling technique was used to select actual PLWHA whose household's male member participated in the intervention group and the control group. A proportionate number of people living with HIV and AIDS from each of the selected support group were identified and one household male member recruited into the study.

The senior most man in the household was purposively selected and recruited into the study so that they would teach and encourage other younger male members as role models to mentor them. A total of 160 participants were selected for the study, 80 from each group. Purposive sampling technique was used to select key informants and those who participated in Focus Group Discussions (FGDs). A total of six FGDs were conducted, in three randomly selected sub-counties out of the four initially considered. Key informant interviews (KIIs) were conducted with target participants until saturation.

3.8 Training of Research Assistants

Six research assistants were selected on the basis of their qualifications; having a degree in the health-related field, capable of speaking Gusii language and resident of Kisii County. They were further subjected to a thorough training on their roles as research assistants, research ethics, interviewing skills and study instruments.

3.9 Pre-Testing the Study Instruments

Pre-testing was done to refine the study instruments and identify errors, which may only be apparent to the population concerned, for example meaning of words. Once the data collection instruments were developed, the lead researcher carefully reviewed the instruments and their related items to ensure that all components to be investigated were captured. To ensure data quality, one FGD (five discussants), KIIs (one) and 18 questionnaires equivalent to 10% of the total sample (180) were pre-tested in Bobasi Sub-County in Kisii County. The pre-test sample was similar as possible to the final group and took place in conditions similar to those of the actual study instruments administration. For the questionnaire, the pre-test sample was

divided into two equal groups. Questionnaires were then administered to the first group to answer at their own time with instructions requiring them to note any questions that were problematic to them. This group was informed that the questionnaires were actually being pretested and they were permitted to comment on them as much as they could. The result indicated that there were some wording issues with some of the questions related to extent of involvement, attitude and socio-cultural practices received little or no responses. Also, cases of item repetition were reported in some variables. The spacing allocation for open ended questions also proved to be inadequate as some of the response given were longer. All the questions that had issues were revised so that they reflected suggestions of the participants while at the same time focusing on the objectives.

The revised questionnaires were then given to the remaining group of participants who reported no problem with the questionnaires. The final pre-test results were entered into SPSS and Cronbach's alpha computed to test reliability of the questionnaire scale for each study construct. Table 4.18 in Appendix XI shows that the items were reliable in measuring their respective constructs given that all the Cronbach's alpha for the constructs were >.7. The FGD and the KII which were conducted successfully were deemed to be okay, thus no further modification required on the instruments and the procedures of conducting them.

3.10 Data Collection

Three types of data collection instruments were used in this study for data collection at pretest and posttest stage and these include; questionnaire (Appendix IV), the Key informants' interviews guide (Appendix V) and the Focused Group Discussion guide (Appendix VI). The tools were translated and administered in Kiswahili (Appendices; VIII, IX and X).

3.10.1 Questionnaires

A semi-structured questionnaire with both closed-ended and open-ended questions was used to collect data on pre-test and post-test. The questionnaire was divided into five sections: demographic information, level of involvement, knowledge, attitude

and socio-cultural factors on male involvement in HBC activities. The section on level of male involvement was developed using Likert scales. The scale of the responses ranged from 1 (not at all) to 5 (completely). Also, sections of attitude and socio-cultural factors was developed using Likert scales. The scales of the responses ranged from 1 (strongly agree) to 5 (strongly disagree). The questionnaire also included open-ended questions to identify specific socio-cultural factors and views on how to tackle them to involve men in HBC activities. The questionnaire was administered to respondents and filled in by the help of the researcher at the selected meeting places. Before asking the respondents to fill the questionnaire, the researcher informed them of the purpose of the study and ensured that they were participating in the study out of their own will and consent.

3.10.2 Focused Group Discussions

Focused Group Discussions (FGDs) guides were used with themes in knowledge, extent of effect training on male involvement, attitude and socio-cultural factors. A total of six FGDs were conducted, in three randomly selected sub-counties, which included two in each Sub-County; one on pre-test and one on post-test. Each FGD consisted of five discussants and the lead researcher as the moderator. The discussants consisted of support group leaders, religious, women leaders, HBC program staff/ managers and hospital administrators. FGDs guide was based on themes of study specific objectives namely; knowledge, extent of involvement, attitude and socio-cultural factors. During the discussions the principal investigator moderated discussions by asking participants to respond to open-ended questions while one research assistant took detailed notes on the discussions. Data was collected using handwritten field notebooks. The discussions were also tape-recorded in order to act as backup for the notes taken. The tape-recorded audio was then transcribed for analysis.

3.10.3 Key Informant Interviews

Key informant interview guides were used to collect information from key informants in three randomly selected sub-counties. The key informants included

Community health workers, Chiefs, public health officers in charge of HBC, Managers of the NGOs, women group leaders and leaders of the support group. The participants were selected using purposive sampling on the bases of being section heads and involved with HBC activities for people living with HIV and AIDS in Kisii county. The Key informant interviews were based on themes of study specific objectives namely; knowledge, extent of involvement, attitude and socio-cultural factors. Face-to-face structured interviews were conducted with target informants. The interview guide allowed the researcher to obtain data within the designed scope, where interviewees were allowed to put forth their perspectives on the study phenomena. The structured set of questions facilitated comparisons and ensured that all the areas of interest were broadly covered.

Before the interview, the targeted respondents were identified and contacted prior to the impending interview. On the interview day, participants were briefed on the nature of the interview including its purpose. Each informant was also required to fill a consent form. The lead researcher conducted the interviews with each interview lasting between 30-50 minutes. In order to collect the interview information, two trained research assistants were used to take interview notes. Each interview session was also recorded using tape recorder after agreement with the informant. Each interview recording was transcribed using for analysis.

3.11 Qualitative Data Analysis

Content and narrative approach were used to analyse the qualitative data of open-ended questions, focused group discussions and key informant interviews. Narrative analysis involved reformulating stories presented by respondents in different context and based on their different experiences. Content analysis was involved in analyzing and interpreting verbal data and analyzed for descriptively or interpretatively. This analysis was used to determine the presences of certain words or concepts within texts or sets of texts. The data was transcribed and the frequency of the emerging themes, the importance and meaning that the study subjects attributed to them and the relationship among concepts was examined. Interviews notes and transcriptions were first read to get a sense of the data as a whole. Units of meaning relevant to the

open-ended questions, focused group discussions and key informant interviews were then combined with the caregiver's interview codes. Finally, summarization and description thematically with verbal reporting where necessary, that exemplify the effects of training men on male involvement in HBC activities with views on how to tackle those factors were written. This allowed for an understanding of the extent to which the qualitative data generated information directly related to the primary aim of the study and provided explanations for the key findings from quantitative analysis.

3.12 Quantitative Data Analysis

This section details the methods used in qualitative data analysis. Quantitative data was cleaned, coded and entered into Statistical Package for Social Science (IBM.SPSS. Statistics version 21) computer software. Both descriptive and inferential statistics were used to analyse the data. The initial stage of descriptive statistics consisting of frequencies, percentages and means were used to summarize observed variables measuring socio-demographic characteristics, knowledge, socio-cultural factors, attitude and extent of involvement in HBC activities.

Various inferential statistical methods exist for analysing pre-test - post-test data including Pearson's chi-square, t-test, analysis of variance (ANOVA), analysis of covariance (ANCOVA), multiple linear regression (MLR) and mixed models. Given that this study used a NEGD quasi-experimental design, not every of the mentioned methods would be suitable. This study mainly used ANCOVA to test effect of training men in HBC involvement for PLWHA between the control and intervention group. ANCOVA was considered because it's more powerful, versatile and popular for NEGD quasi experimental design that lacks randomization (Dimitrov & Rumrill, 2003; Knapp & Schafer, 2009; Wu, & Lai, 2015).

3.12.1 Data Screening

Questionnaire were numbered as received from participants and checked to ensure completeness and readability of the responses before being entered into SPSS. Frequencies were computed for each item and all the cases were examined for

missing values. Despite there being missing values for a number of cases, these were not extreme to warrant case exclusion. Given that the missing values were only exhibited in some of the continuous variables only, the missing values were replaced using series mean for each variable that had missing values.

3.12.2 Test of Statistical Assumptions

Before conducting ANCOVA, test of statistical assumptions for conducting ANCOVA were performed in SPSS. Key among the tests conducted were homoscedasticity of residuals/variance and homogeneity of regression slopes. Homoscedasticity of residuals/variance was assessed by conducting Factorial general linear model (GLM) ANOVA on the mean of the pretest scores for attitude, involvement and socio-cultural variables such as mean attitude (pretest), Mean Involvement (pretest) and Mean Socio-Cultural (pretest). The results are summarized in Table 1. The results indicate that there is no statistically significant difference between control and intervention group in the pretest for all the three variables of interest. Hence the data passes the assumption test of homoscedasticity for ANCOVA analysis.

Homogeneity of regression slopes was assessed for the three main study constructs namely assess attitude, involvement and socio-cultural practices. To do this custom ANCOVA was conducted with the means of posttest scores as dependent variable, group as fixed factor and means pretest scores as the covariates in general linear model (GLM) for the three variables. This was further enhanced by performing the Levene's test of equality of error variances in ANCOVA jut to confirm that the data actually was suited for ANCOVA analysis.

The first objective of this study was to determine the knowledge of men on home-based care practices for people living with HIV and AIDS in Kisii County, Kenya. The scale of 'yes' or 'no' with open ended questions were used to achieve this, respondents in both control and intervention group were assessed on their awareness of home-based care for people living with HIV and AIDS, formal training in Home-based care for people living with HIV and AIDS, skills on Home-based care

activities, awareness of male involvement in HBC activities and their involvement in any Home-based care support group within their community. Descriptive statistics in SPSS was used to analyze their responses.

To assess the attitude of men toward involvement in home-based care for people living with HIV and AIDS in Kisii County, Kenya, descriptive statistics consisting of means and standard deviations were first computed in SPSS for each variable in the pretest and posttest. Univariate; the Mean Attitude in pretest and Mean Attitude in posttest were then computed and saved as variables in SPSS. ANCOVA in GLM was then conducted with Mean Attitude (posttest) as the dependent (response) variable, Group (Control and Intervention) as the fixed factor and Mean Attitude (Pretest) as the covariates. Partial Eta Squared values were used to determine effect size and the percentage of the variance explained by the intervention effect. The partial Eta Squared value indicates the effect size and should be compared with Cohen's guidelines (0.2 – small effect, 0.5 – moderate effect, 0.8 – large effect). Fisher's Least Significant Difference (LSD) post hoc tests were then used to compare significant mean difference between pretest and posttest scores.

Objectives three and four of this study focused on determining the effect of training men on extent of involvement in HBC for PLWHA and establishing the influence of training on socio-cultural practices related to men involvement in HBC for PLWHA respectively. Respondents were first required to indicate on a scale of 1-5 their opinion on the extent of men involvement using a set of HBC activities for PLWHA in Kisii County in pretest and posttest survey. Descriptive statistics consisting of means and standard deviations were also computed in SPSS for each variable in the pretest and posttest. The mean scores of their responses for both pretest and posttest were computed and saved as variables in SPSS. The variables were named "Mean Involvement (Pretest)" and "Mean Involvement (Posttest)" for pretest and posttest survey respectively. The variables for objective four were Mean Socio-cultural (pretest) and Mean Socio-cultural (posttest). Two separate Univariate General Linear Model ANCOVA in SPSS were then conducted for involvement and socio-cultural practices following similar procedures as those used in assessing attitude. The results are presented in tables.

3.12 Validity and Reliability

The study developed specific principles to examine trustworthiness and quality of research which includes credibility, dependability, conformability and transferability. The tools were pre- tested in order to test study measures, estimation of interviews, testing validity of tools and estimation of outcomes variables. A control group and an intervention group of men were used for the test of internal validity for the training effect.

3.13 Ethical Considerations

An ethical approval was obtained from the Ethical Review committee at Kenyatta National Hospital / University of Nairobi (Appendix I). The permission to carry out the research was obtained from Kisii County Medical Office of Health (Appendix II), County Commissioner of Kisii County and the area Chiefs. To legitimize the study, an introductory statement was used, which clearly stated the purpose of the study, seeking written consent and signed from the respondents before being interviewed (Appendix III). The respondents were assured of anonymity so as not to make them feel the information would be used against them. It emphasized that there was no revealing of information to reassure the respondents of their confidentiality. This was maintained, whereby the information obtained from the subjects and respondents were not required to write their names on the questionnaires and audio tapes or video tapes were destroyed after ten years are over.

CHAPTER FOUR

RESULTS

4.1 Preamble

The data was explored for missing data and outliers in SPSS. The results indicated no cases of outliers. However, cases of some missing data were present in some variables and these were addressed by replacing the missing data with series means.

4.2 Test of Statistical Assumptions

Homoscedasticity of residuals/variance was assessed by conducting Factorial general linear model (GLM) ANOVA on the mean of the pretest scores for attitude, involvement and socio-cultural variables. The results are summarized in Table 4.1. The results indicate that there is no statistically significant difference between control and intervention group in the pretest for all the three variables of interest. Hence the data passes the assumption test of homoscedasticity for ANCOVA analysis.

Table 4.1: Test for Homoscedasticity of residuals/variance using General Linear Model in SPSS 21.0

	Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Dependent Variable: Mean of Attitude 1 (Pretest)	Corrected Model	.764[a]	1	.764	1.818	.179
	Intercept	1697.791	1	1697.791	4040.694	.000
	Group	.764	1	.764	1.818	.179
	Error	66.387	158	.420		
	Total	1764.942	160			
	Corrected Total	67.151	159			
Dependent Variable: Mean of Involvement 1 (Pretest)	Corrected Model	2.110[a]	1	2.110	2.454	.119
	Intercept	1868.777	1	1868.777	2173.208	.000
	Group	2.110	1	2.110	2.454	.119
	Error	135.867	158	.860		
	Total	2006.754	160			
	Corrected Total	137.977	159			
Dependent Variable: Mean Socio-cultural 1 (Pretest)	Corrected Model	.234[a]	1	.234	.256	.614
	Intercept	1092.775	1	1092.775	1195.572	.000
	Group	.234	1	.234	.256	.614
	Error	144.415	158	.914		
	Total	1237.424	160			
	Corrected Total	144.649	159			

Note: N for Control group = 80
N for Intervention group = 80

Homogeneity of regression slopes was assessed in the three variables; attitude, involvement and socio-cultural practices using custom ANCOVA. The results are summarized in Table 4.2.

Table 4.2: Test for homogeneity of regression slopes using GLM in SPSS 21.0

	Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Dependent Variable: Mean of Attitude 2 (Posttest)	Corrected Model	180.130[a]	3	60.043	998.318	.000
	Intercept	17.421	1	17.421	289.650	.000
	Group	7.082	1	7.082	117.743	.000
	MeanAttitude_1	5.236	1	5.236	87.058	.000
	Group * MeanAttitude_1	**.015**	**1**	**.015**	**.248**	**.619**
	Error	9.383	156	.060		
	Total	1351.698	160			
	Corrected Total	189.513	159			
Dependent Variable: Mean of Involvement 2 (Posttest)	Corrected Model	219.951[a]	3	73.317	1212.344	.000
	Intercept	97.905	1	97.905	1618.919	.000
	Group	11.800	1	11.800	195.116	.000
	MeanInvolvement_1	.179	1	.179	2.964	.087
	Group * MeanInvolvement_1	**.165**	**1**	**.165**	**2.731**	**.100**
	Error	9.434	156	.060		
	Total	1589.646	160			
	Corrected Total	229.385	159			
Dependent Variable: Mean Socio Cultural 2 (Posttest)	Corrected Model	15.523[a]	3	5.174	64.428	.000
	Intercept	36.209	1	36.209	450.864	.000
	Group	2.215	1	2.215	27.586	.000
	MeanSocioCulktural_1	2.633	1	2.633	32.783	.000
	Group * MeanSociocultural_1	**.073**	**1**	**.073**	**.913**	**.341**
	Error	12.528	156	.080		
	Total	527.663	160			
	Corrected Total	28.051	159			

Note: N for Control group = 80
N for Intervention group = 80

4.3 Socio-Demographic Characteristics

A summary of socio-demographic characteristics of study participants is provided in Table 4.3. The results show that majority of the participants, 58 (36.25%), were aged between 36-45 years with a mean of 39 years. 156 (97.50%) of the respondents had attained some form of education, majority 72 (45.00%) of which had primary education with only 4(2.50%) having not attained any level of education. Majority of the respondents, 124 (77.50%), were married while 157 (98.13%) the respondents

ascribed to Christianity. Most, 108 (67.50%), of the respondents were self-employed. Likewise, majority, 97 (60.63%) were earning income of more than Ksh 10,000 per month. Out of these, only 4(2.50%) were earning above Ksh. 40,000.

Table 4.3: Socio-Demographic Characteristics of Study Participants

Variables	Group		Total
	Control n (%)	Intervention n (%)	
Age Category			
18-25	5(6.25)	5(6.25)	**10(6.25)**
26-35	18(22.50)	20(25.00)	**38(23.75)**
36-45	31(38.75)	27(33.75)	**58(36.25)**
>45	26(32.50)	28(35.00)	**54(33.75)**
Total	**80(100.00)**	**80(100.0)**	**160(100.00)**
Level of Education			
None	2(2.50)	2(2.50)	**4(2.50)**
Primary	34(42.50)	38(47.50)	**72(45.00)**
Secondary sch	38(47.50)	32(40.00)	**70(43.75)**
College/ university	6(7.50)	8(10.00)	**14(8.75)**
Total	**80(100.00)**	**80(100.00)**	**160(100.00)**
Marital Status			
Married	56(70.00)	68(85.00)	**124(77.50)**
Single	10(12.50)	6(7.50)	**16(10.00)**
Widow/ Widower	12(15.00)	4(5.00)	**16(10.00)**
Divorced/ Separated	2(2.50)	2(2.50)	**4(2.50)**
Total	**80(100.00)**	**80(100.00)**	**160(100.00)**
Religion Category			
Christian	80(100.0)	77(96.25)	**157(98.13)**
Islam	0(0.00)	2(2.50)	**2(1.25)**
Others	0(0.00)	1(1.25)	**1(0.63)**
Total	**80(100.00)**	**80(100.00)**	**160(100.00)**
Major occupation			
Salary Employment	9(11.25)	11(13.75)	**20(12.50)**
Self-Employment	54(67.50)	54(67.50)	**108(67.50)**
Casual Employment	10(12.50)	12(15.00)	**22(13.75)**
None	7(8.75)	3(3.75)	**10(6.25)**
Total	**80(100.00)**	**80(100.00)**	**160(100.00)**
Level of Income			
< 10,000	32(40.00)	31(38.75)	**63(39.37)**
10,000-20,000	38(47.50)	43(53.75)	**81(50.63)**
20,000-30,000	7(8.75)	5(6.25)	**12(7.50)**
40,000 and Above	3(3.75)	1(1.25)	**4(2.50)**
Total	**80(100.00)**	**80(100.00)**	**160(100.00)**

4.4 Knowledge of Men on HBC for PLWHA in Kisii County

In the qualitative study, KIIs and FGDs were conducted first to determine knowledge of men in HBC activities for PLWHA. When engaged about the forms of HBC activities men are aware of, interviewees in the KIIs and discussants in the FGDs pointed on a number of HBC activities that were categorized under four main themes namely Clinical care, Nursing care, Counseling/Psycho-spiritual care and Social support services. Thematic categorization was based on the 2002 Kenya national home-based care programme and service guidelines. These are summarized in Table 4.4. In particular, one of the discussants commented that:

> "…*personally, I engage in a lot of HBC activities. If am not following up of patients' drug administration to ensure adherence am either counselling individuals who are HIV positive. Sometimes I take it upon myself to visit them just to see how they are doing and whether they have eaten or not. During my visits I carry along with me food…You know it's very bad to visit a sick person with both your hands hanging on your side…While there, the patient may need some assistance…may be they want to sit down or to respond to call of nature and definitely you have to assist them with all these…".*

Table 4.4: Forms of HBC activities men are aware of

Thematical Areas	HBC Activities
Clinical care	▪ Drug administration such as ARVs ▪ HIV testing and counselling ▪ First aid administration ▪ Referrals to clinical and other services
Nursing care	▪ Cleaning and washing patients ▪ Physical therapy ▪ Feeding and nutritional support ▪ Infection prevention ▪ Maintain hygienic conditions of the patients ▪ Bed bathing HIV and Aids patients
Counselling/Psycho-spiritual care	▪ Worshiping and praying together ▪ Giving encouragement to the sick ▪ Reassuring the sick ▪ Visiting the sick patients ▪ Stigma management
Social support services	▪ Helping with daily activities ▪ Cooking for the patients ▪ Fetching water for the patients ▪ Changing soiled beddings ▪ Washing or laundering for HIV and Aids patient ▪ Buying food and other necessities

Generally, respondent felt that there was a need to provide patients with all forms of support aside from clinical support that relates to medication. In an interview with one of the interviewees, the following comments were made:

> "*…This work is more like a call from God. It requires you to do it whole heartedly knowing that you are fulfilling your humane responsibilities here on Earth…If I were in their shoe* (making

reference to the HIV and Aids patient) *I would expect all forms of support, more so spiritually, physically and psychologically so as to be able to face the world on a daily basis".*

When asked about who are involved in Home-based care for people living with HIV/AIDS, there was a general feeling that women and girls in the community do most of the HBC activities given their understanding nature. However, majority of the participants also felt that men were slowly taking up the challenge. One of the respondent commented that:

"*…It's very common to see women take up the jobs in HBC programmes for HIV and Aids patient because they are empathetic in nature compared to men… Although majority of us men still feel that looking after HIV and Aids patients is a demanding task that is beyond us in the community since it involve women related activities such as washing, cooking, and so on, I personally take up the challenge and urge my fellow men to do so. What if this was your wife, mother, sister or brother* (making reference to HIV and Aids patients) *would you not involve yourself because you are a man? …".*

In one of the KIIs, one of the respondent also commented that:

"...Our men should change their views about life and HBC activities for HIV and Aids sick persons. If we can change our attitude generally about certain activitie deemed feminine, then we can actively involve ourselves in HBC for people living with HIV and Aids and transform the community as a whole to be a better place for our women who are overburdened...".

There was a general feeling that though men do not actively take part or get involved in HBC activities, they would be willing to, though some cultural practices, social norms and beliefs hold them back. This therefore leave women to get actively involved in HBC activities for PLWHA more compared to men. In one of the FGDs, a discussant comented that:

"…*Sometimes we men would want to help at home but there are things (norms and taboos) that don't allow us that high extent of involvement in such activities. We do help where we are comfortable… If you are a married or circumcised man, definitely you will not give certain care to your mother even enter certain rooms even if you are alone... Therefore, you will get a woman to do that…"*

In agreement, another discussant added that:

"*Also, my father cannot enter my house to help me or my wife, even if we are sick, he will get someone else to help…It is a taboo in the community. I was born and found it there".*

After the training, FGDs and KIIs with the participants revealed that men were now actively getting involved in HBC activities for PLWHA. This is reflected in the feelings of a discussant who expressed that:

"*I have learnt how to take care of the HIV/AIDs patients; how to clean and dress a wound on daily basis. I no longer wait for my wife to do HBC activities alone…I am fully involved, and it brings with it some gratification".*

Another one added that:

"I used to depend on my wife to prepare food for us. Now that I have been empowered through the training in HBC, I am a changed person. Now days I have changed, and I also cook for children".

Another respondent commented,

"*Before I never used to care if the baby has been give balanced food and ARVs in time but now days I do follow ups and even give her myself…With the knowledge I have on good nutrition for HIV and Aids patients, I make sure, I buy food which is of nutritional value myself… because I know them now*''.

In KI with a woman HIV support group leader said that

> "*I have seen my husband helping with work at home and going to give counselling to HIV patients' relatives in their homes…Many of my fellow women are saying that they are seeing men changing their behaviour towards domestic chores and work at homes".*

Regarding skills men have in HBC activities for people living with HIV and AIDS, repondents felt a general inadequacy on the skills needed to provide HBC services. However, they felt that some men possess skills in areas such as counselling, drug administration and follow ups, nutrition and feeding, HIV testing and counselling, caregiving, nursing and prevention of new infections. One of the FGDs discussant commented that:

> "*I normally see the hospital and NGO' staff being taken for formal training, in our department it is only the supervisor who goes…Our supervisor thinks calling for a meeting once a month for 30 minutes is part of training to the HIV clients who are majorly women and a few men so the information given is not enough to men…The training is normally taken to be too casual…though I later realise that they were trained in areas to do with care giving, drug administration and counselling"*.

In a key informant interview with a church pastor said,

> *"Many men have received the knowledge through the training given on men involvement in home-based care for people living with HIV/AIDS. They are even sharing the information openly among the members in church than before particularly on prevention of new infection, care giving and stigma management*".

In the quantitative study, descriptive statistics in SPSS was used to analyze their responses and the results are summarized in Table 4.5.

4.4.1 Men's Awareness on HBC Activities

Table 4.5 shows that majority, 123 (76.90%), of the respondents were aware of HBC activities. Out of this, 76 (95.00%) were from the intervention group while 47 (58.75%) were from the control group. Majority, 33 (41.25%), of participants who were not aware of HBC activities for PLWHA were from the control group.

Those who were aware of HBC activities for PLWHA were further required to highlight which HBC for PLWHA and AIDS they were aware of. Respondents elicited various responses. These were further summarized and grouped into five themes namely HIV testing and counselling, drug adherence, feeding and nutrition program, care giving and nursing, and cleanliness and hygiene.

Table 4.5: Knowledge of men on HBC Activities

	Group		
Variables	**Control n (%)**	**Intervention n (%)**	**Total**
Are you aware of HBC for PLW HIV& AIDS			
Yes	47(58.75)	76(95.00)	123(76.90)
No	33(41.25)	4(5.00)	37(23.10)
Total	**80(100.00)**	**80(100.00)**	**160(100.00)**
Do you have any formal training in HBC for PLW			
Yes	32(40.00)	24(30.00)	56(35.00)
No	48(60.00)	56(70.00)	104(65.00)
Total	**80(100.00)**	**80(100.00)**	**160(100.00)**
Do you have skills on HBC activities			
Yes	34(42.50)	28(35.00)	62(38.75)
No	46(57.50)	52(65.00)	98(61.25)
Total	**80(100.00)**	**80(100.00)**	**160(100.00)**
Are you aware of male involvement in HBC activities			
Yes	47(58.75)	51(63.75)	98(61.25)
No	33(41.25)	29(36.25)	62(38.758)
Total	**80(100.00)**	**80(100.00)**	**160(100.00)**

The relevant responses were then quantified descriptively using frequency tables and percentages and the results are presented in Table 4.6 and Figure 4.1. The table show that most of the respondents (36.25%) were aware of HIV testing and counselling while few of the respondents (5%) were aware of nutrition program.

Table 4.6: Men awareness on HBC activities

HBC Activity Themes/Areas	Frequency	Percent
HIV testing and counselling	42	37.50
Drug adherence	30	26.79
Nutrition and feeding program	9	8.04
Care giving and nursing	25	22.32
Cleanliness and Hygiene	6	5.36
Total	**80**	**100.00**

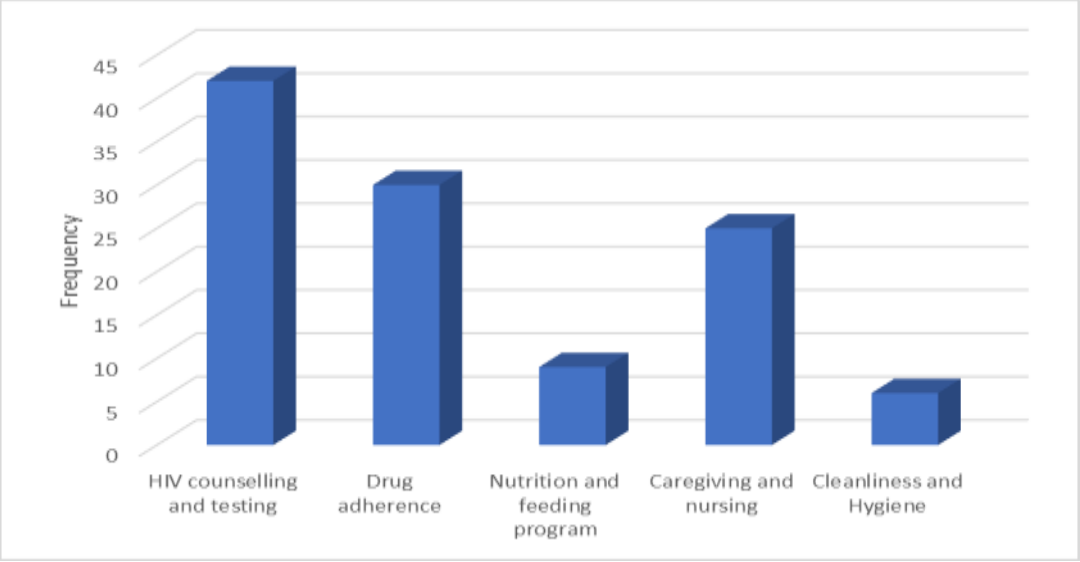

Figure 4.1: HBC activities men are aware of

4.2.2 Formal Training in HBC for PLWHA

As part of the knowledge assessment, respondents were also required to indicate whether they had any formal training in HBC activities. Table 4.5 also shows the descriptive analysis results. It shows that 56 (35.00%) of the respondents, had formal training in HBC activities with 104 (65.00%) having no formal training. Majority, 32 (40.00%), of participants with formal training were in the control group while those

with no formal training on HBC activities were in the intervention group 56 (70.00%). Those who responded as having formal training on HBC activities were further required to highlight the areas they were trained. Their responses were examined and grouped into seven themes namely drug adherence, nutrition and feeding, testing and counseling, care and nursing, cleaning and hygiene, prevention, and stigma management. Frequency and percentage of the HBC activities are shown in Table 4.7.

Table 4.7: Areas of HBC formal training

Theme	Frequency	Percent
Drug adherence	36	29.27
Nutrition and feeding	31	25.20
Testing and counseling	33	26.83
Care and Nursing	10	8.13
Cleaning and Hygiene	4	3.25
Prevention	5	4.07
Stigma Management	4	3.25
Total Count	**123**	**100.00**

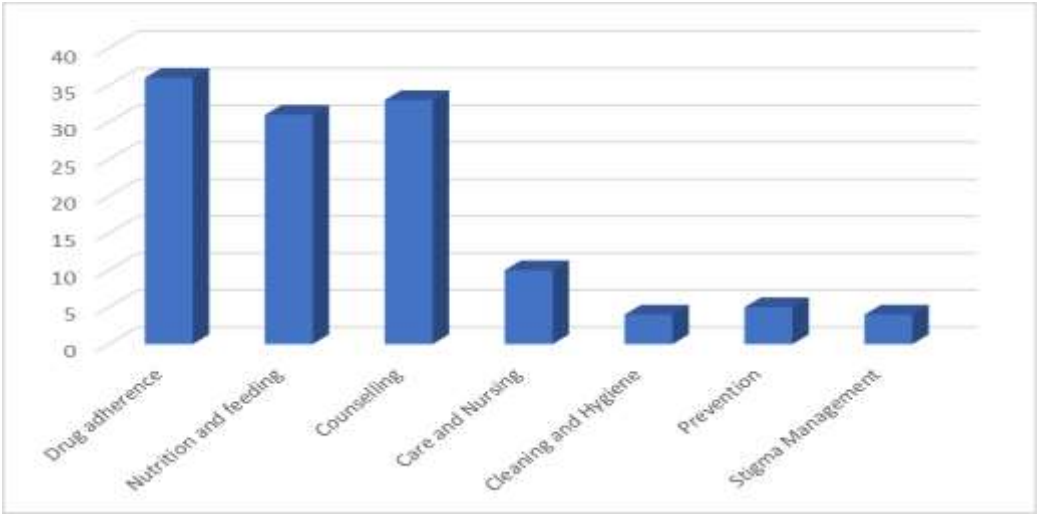

Figure 4.2: Areas on HBC for PLWHA formal training

Majority of the respondents who had formal training had received training on matters related to drug adherence 36 (29.27%) followed by testing and counselling at 33 (26.83%). Least formal training was on the area of cleaning and hygiene and stigma management each at 4 (3.25%).

4.2.3 Men's Skills on HBC activities

To assess the skills of respondents on HBC activities, respondents were required to indicate whether they had skills on HBC activities. The results are summarised in Table 4.5. The table shows that 62 (38.75%), had skills on HBC activities with 98 (61.25%) having no skills. 52 (65.00%) of the participants without skills were in the intervention group.

Those who responded as having skills on HBC activities were further required to indicate the particular skills regarding HBC activities they possessed. Respondents produced various responses. These were grouped into five themes namely drug adherence, nutrition and feeding, HIV testing and counselling, care and nursing, and prevention. Frequency and percentage of theme appearance were then computed in excel and tabulated. The results are shown in Table 4.8.

Table 4.8: Skills on HBC activities possessed by men

Theme	Frequency	Percent
Drug adherence	5	14.29
Nutrition and feeding	6	17.14
HIV testing and counselling	14	40.00
Care and Nursing	7	20.00
Prevention	3	8.57
Total Count	**35**	**100.00**

The table show that majority of the respondents (40.00%) had skills in HIV testing and counselling, with prevention skills coming last at 8.57%.

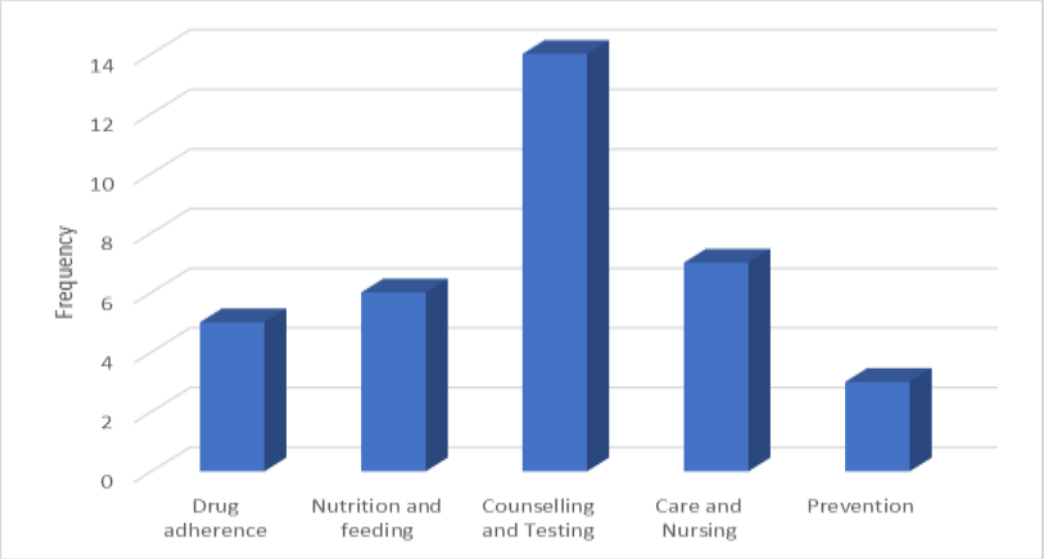

Figure 4.3: HBC skills possessed by men

4.2.4 Awareness on Men Involvement in HBC Activities

Respondents were required to indicate their awareness on men involvement in HBC activities. The results are also summarised in Table 4.5. Regarding men awareness on men involvement in HBC activities, 98 (61.25%) of the respondents were aware of men involvement in HBC activities, majority 51 (63.75%) of which were in the intervention group.

Those who responded as having awareness on men involvement in HBC activities were further required to indicate what men should be trained on to encourage them be involved in HBC for PLWHA. These were also grouped into five themes namely drug adherence, nutrition and feeding, testing and counselling, care and nursing, and prevention. Frequency and percentage of theme appearance were then computed in excel and tabulated. The results are shown in Table 4.9.

Table 4.9: What men should be trained on to encourage involvement in HBC for PLWHA

Theme	Frequency	Percent
Drug adherence	7	33.33
Nutrition and feeding	4	19.05
HIV testing and counselling	2	9.52
Care and Nursing	5	23.81
Prevention	3	14.29
Total Count	**21**	**100.00**

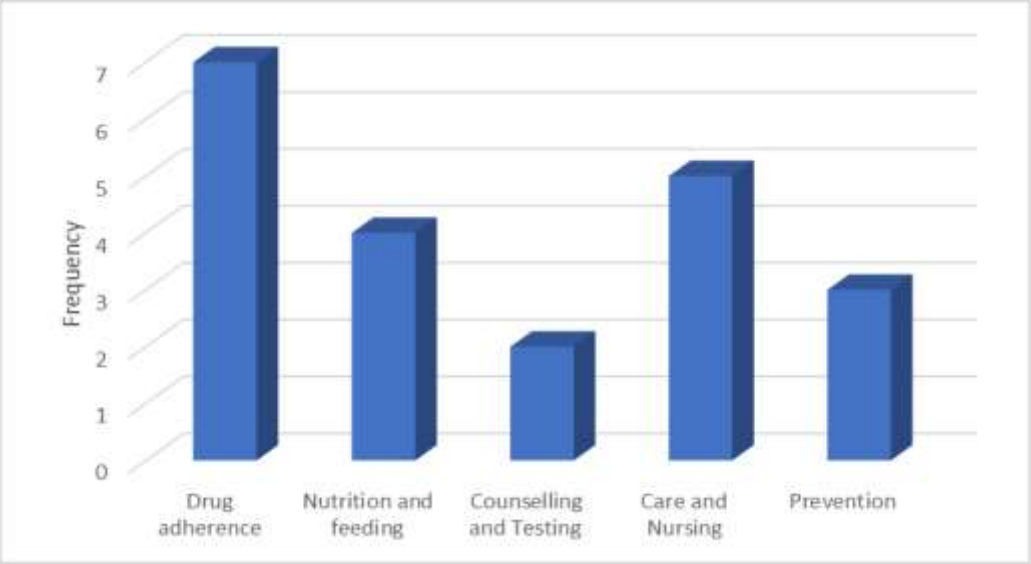

Figure 4.4: HBC activities to train men on

Drug adherence registered the highest number of counts 7 (33.33%) an indication that the respondents felt the need to train men more on drug adherence as one of the HBC activities for PLWHA. This was followed by care and nursing 5 (23.81%) while testing and counselling registered the least count 2 (9.52%).

4.3 Attitude of Men toward HBC involvement for PLWHA

The respondents were required to indicate on five-point Likert scale their opinions towards male involvement in HBC among their community. Men's attitude towards home-based care involvement for people living with HIV and AIDS among the participants was assessed by comparison means of various variables on pre and post

intervention. Table 4.10 shows the summarized results of the mean assessment for pretest and posttest attitude scores.

Table 4.10: Men attitude on home-based care involvement for PLWHAs

	Pretest		Posttest	
Attitude of men towards HBC for PLWHA	**Mean**	**SD**	**Mean**	**SD**
Male patients should be attended to by male caregivers only.	2.51	1.39	2.45	1.26
Home-based care volunteering is meant for women and girls only.	2.34	1.33	1.76	.65
Home-based care programmes have done little to involve men.	3.32	1.21	2.08	.66
Male volunteers can attend Home-based care training if invited by health workers.	3.75	1.16	3.28	1.50
Men are willing to be involved in HBC activities	3.71	1.11	3.27	1.55
Men and boys should be involved in care giving for the people living with HIV and AIDS.	3.92	1.16	3.34	1.54

The table 4.10 indicate that in both pretest and posttest, participants disagreed that male participants should be attended to by male caregivers only with a mean of (*M = 2.51, SD = 1.39*) and (*M = 2.45, SD = 1.27*) respectively. Participants were also generally undecided in most of the responses including whether "Men and boys should be involved in care giving for the people living with HIV and AIDS" with a mean on *M = 3.92, SD = 1.16* in the pretest and M = *3.34, SD = 1.54* in the posttest. Table 4.8 indicates change in the means for all the variables used in measuring attitude after training men on HBC activities for PLWHA. A one-way ANCOVA was conducted to compare the effectiveness of training on attitude whilst controlling for pretest scores.

Descriptive statistics results (see Table 4.19 in Appendix XII) show that the mean for the intervention group (M= 3.74, SD = 0.24) in the posttest was higher than that for the control group (M = 1.65, SD = 0.37) with regard to the attitude scores. Levene's test and normality checks were carried out and the assumptions met. The Levene's

test of equality of error variances [F (1,158) = 0.01, p=1.00] indicated that equal variances can be assumed across the groups, since p > 0.05 (Table 4.20 in Appendix XII). This further revealed that the data meets the ANCOVA assumption for homogeneity of regression.

The ANCOVA results are summarized in Table 4.11. The results show that there was a significant difference in mean attitude F [(1, 157) = 2993.20, p < 0.01] between the groups (intervention and control groups), whilst adjusting for pretest mean scores. The Eta Squared value for the group indicates that the effect size is large (0.95) and that 95% of the variance in dependent variable (attitude) is explained by training men on HBC activities for PLWHA. Comparing the estimated marginal means (see Table 4.21 in Appendix XI) show that there is a significant increase in the mean attitude (*M* = 3.76) up after training on HBC from (*M* = 1.63) before the training. Fisher's Least Significant Difference (LSD) post hoc tests (see Table 4.22 in Appendix XII) show there was a significant difference between intervention group and control group (*M* = 2.13, p < 0.01, confidence interval = [2.05, 2.21]). The results generally indicate significant intervention effect implying that training men on HBC involvement had effect on the respondents' attitude about men involvement in HBC activities for PLWHA in Kisii County.

Table 4.11: ANCOVA tests of effects for mean attitude (posttest)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	180.12[a]	2	90.06	1504.56	.00	.95
Intercept	18.15	1	18.15	303.23	.00	.66
MeanAttitude_1 (Pretest)	5.75	1	5.75	96.10	.00	.38
Group	**179.16**	**1**	**179.16**	**2993.20**	**.00**	**.95**
Error	9.40	157	.06			
Total	1351.70	160				
Corrected Total	189.51	159				

Note:

R Squared = .95 (Adjusted R Squared = .95)
N for control group = 80
N for intervention group = 80

Qualitatively it come out the effect of training between the two groups whereby in a focused Group Discussion with control group a man said, *"We have been told to help how women at home but we have not been trained like now we know what and how to help at home".* In FGD with intervention group a man said, "*Now I know how to buy balanced diet food and prepare them nutritionally, do nursing care, counselling and spiritual support.* He added, "*It is easy and we are now to be involved".*

Another man in interventional group commented, "*At the church we counselled members and many people received the information on HBC and some got the courage to go for VCT testing to know their status.* He added, *"After knowing they are willingly taking ARVs drugs and they are doing well".*

In focus group discussion the male feel that men need to be sensitized towards home based care and that more information about the field should be made available to them in the community. Men still look down to care giving, and this may be due to lack of information on what the field entails. Within the community, care giving is still portrayed as women's work and for this to change, training should be given to men and for those involved in the intervention they have changed and have information.

"*Many men have a negative attitude in the community on care giving that it is women's work. They still need training to empower them that even men can do it".* One man lamented.

In focused group discussion, "*For us we have more information and we have changed and we are helping at home",* One man commented.

On the other hand in a Key Informant interview with a support group leader indicated, "*Men are changing from saying that HBC activities are for women. We have received new members through the training of men and sharing with others' joined our group voluntary".*

4.4 Effect of Training on Extent of Men Involvement in HBC Activities

In Table 4.12, mean comparison on extent of men involvement in HBC activities for PLWHA was done pre and post training. The table indicate that in both pretest and posttest, level of participants involvement in HBC activities for PLWHA generally ranged from "to a little extent" in the pretest to "some extent" in the posttest, indicating an increase. For instance, counseling and spiritual support increased from *M = 3.09, SD = 1.35* in the pretest to *M = 3.13, SD = 1.15* in the posttest. In both cases, participant registered some extent of involvement averagely. "Bed bath to HIV and Aids patient" also registered mean increment from *M = 2.63, SD = 1.00* in the pretest to *M = 3.43, SD = 1.32* in the posttest. In both cases however, participant recorded on average little extent of involvement.

Table 4.12: Extent of men involvement in HBC activities for PLWHA

	Pretest		**Posttest**	
HBC activities for PLWHA	**Mean**	**SD**	**Mean**	**SD**
Counselling and giving spiritual support to people living with HIV and AIDS	3.09	1.35	3.13	1.15
Go together with your partners to the clinic for treatment or get Anti- Retroviral (ARVs)	3.09	1.43	3.24	1.35
Bed bath to HIV and AIDS patients	2.63	1.00	2.90	1.32
Cook and feed the AIDS patients	2.56	1.01	3.43	1.22
Fetch water and make general cleanliness to the compound/house where the female is HIV ill patient	2.55	1.03	3.42	1.23
Support, lift and conduct physical therapy for HIV ill patient	3.03	1.40	3.32	1.21
Change soiled beddings and wash them for HIV and aids ill patient	3.05	1.43	3.21	1.33
Buy and take food to the house where the female is the HIV ill patient	3.04	1.49	3.52	1.31
Monitoring the Health of HIV and AIDS patients	2.98	1.46	3.70	1.24
Provide first Aid for burns and wounds	2.89	1.43	3.45	1.32
Make referral to health care centers	2.99	1.41	3.78	1.28
Follow up patients to ensure they take prescribed drugs accordingly	3.10	1.46	3.91	1.28

One-way ANCOVA was conducted to compare the effectiveness of training on involvement whilst controlling for pretest scores. Descriptive results (see Table 4.19 in Appendix XII) show that the mean for the intervention group (M= 4.09, SD = 0.19) in the posttest was higher than that for the control group (M = 1.74, SD = 0.30) with regard to the involvement scores. The Levene's test of equality of error variances [F (1,158) = 2.69, p = 0.10] indicated that equal variances can be assumed across the groups, since p > 0.05 (See Table 4.20 in Appendix XII).

ANCOVA results are summarized in Table 4.13. The results show that there was a significant difference in mean involvement F [(1, 157) = 3558.78, p < 0.01] between the groups (intervention and control groups), whilst adjusting for pretest mean scores. The Eta Squared value for the group indicates that the effect size is large (0.96) and that about 96% of the variance in dependent variable (involvement) is explained by training.

Table 4.13: ANCOVA tests of effects for mean involvement (posttest)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	219.77[a]	2	109.89	1797.34	.00	.96
Intercept	98.88	1	98.88	1617.16	.00	.91
MeanInvolvement_1	.13	1	.13	2.05	.15	.01
Group	217.59	1	217.59	3558.76	.00	.96
Error	9.609	157	.06			
Total	1589.65	160				
Corrected Total	229.39	159				

Note:

R Squared = .96 (Adjusted R Squared = .96)
N for control group = 80
N for intervention group = 80

Comparing the estimated marginal means (Table 4.21 in Appendix XII) show that there is a significant increase in the mean involvement (*M* = 4.09) up after training on HBC from (*M* = 1.74) before the training. Fisher's Least Significant Difference

(LSD) post hoc tests (Table 4.22 in Appendix XII) show there was a significant difference between intervention group and control group ($M = 2.35$, $p < 0.01$, confidence interval = [2.27, 2.43]). There is, therefore, a generally significant intervention effect implying that training men on HBC involvement had effect on the respondents' involvement in HBC activities for PLWHA in Kisii County.

It was also reflected in FGD men discussions that there was intervention effect on training men where one man expressed himself, *"I have learned how to take care of the HIV and AIDS patients; how to clean and dress a wound on daily basis. I no longer wait for my wife to do alone"*.

Another respondent commented**,** *"Before I never use to care if the baby has been given balanced food and ARVs in time but now days I do follow ups and even give her myself.* He added, *"I make sure, I,* myself *buy food which is balanced because I know them now"*.

In KI with a woman a HIV support group leader said that, *"I have seen my husband helping me work at home and going to give counseling those HIV patients' relatives on their homes.* She added,*" Many women are saying that they are seeing men changing their behavior towards domestic chores and working at homes"*.

4.4 Influence of Training on Socio-cultural Practices Related to Men Involvement in HBC Activities for PLWHA

Participants were assessed on the socio-cultural factors associated with men involvement in HBC for HIV. Mean comparison on socio-cultural variables was done pre and post training on men in the study area. Table 4.14 indicate that in both pretest and posttest, participants disagreed in almost all the socio-cultural variables regarding male involvement in HBC activities for PLWHA. For instance, while participants during the pretest were undecided on "Men not accompanying their wives to clinics" *M = 3.18, SD = 1.34,* the mean reduced to *M = 1.63, SD = 0.50* in the posttest. The table indicate that there was a general reduction in the mean response for all the variables in the posttest as compared to the pretest.

One-way ANCOVA was conducted to compare the effectiveness of training on socio-cultural practices related to HBC for PLWHA whilst controlling for pretest scores. The results are summarized in Table 4.15. Descriptive results (see Table 4.19 in Appendix XII) show that the mean for the intervention group (M= 2.05, SD = 0.30) in the posttest was higher than that for the control group (M = 1.48, SD = 0.32) with regard to the socio-cultural practices scores. The Levene's test of equality of error variances [F (1,158) = 2.74, p = 0.10] indicated that equal variances can be assumed across the groups, since p > 0.05 (Table 4.20 in Appendix XII).

Table 4.14: Socio-cultural factors associated with men involvement in HBC for PLWHA

	Pretest		Posttest	
Socio-cultural practices towards HBC for PLWHA	**Mean**	**SD**	**Mean**	**SD**
Men should not accompany their wives to Clinics	3.18	1.34	1.63	.50
Men who accompany their female partners are controlled by them	2.51	1.41	1.38	.49
It is a taboo for men to cook when married	2.51	1.41	1.35	.49
Cooking and fetching water are for women and children only	2.48	1.30	1.35	.51
Men who do general cleanliness for the home are weak and bewitched.	2.39	1.42	1.33	.48
If a woman is found HIV positive, she should be divorced	2.47	4.37	1.28	.46
HIV positive man should marry another wife to take care of him	2.56	1.36	1.89	.92
Care giving is believed to be the work of women	2.52	1.38	1.89	.69
Men who get involved in Home-Based Care activities can be discriminated by the society	2.70	1.36	2.91	1.44
Men are afraid or embarrassed to become associated with HIV/AIDS when involved on Home-based care activities.	3.00	1.38	2.56	1.17
Men increased role in domestic activities is a sign that the wife is lazy or incompetent woman	2.42	1.32	1.89	.83

The ANCOVA results show that there was a significant difference in mean socio-cultural practices F [(1, 157) = 166.13, p < 0.01] scores. The Eta Squared value for

the group indicates that the effect size is medium (0.51) and that 51% of the variance in dependent variable (socio-cultural practices) is explained by training men on HBC involvement for PLWHA. Comparing the estimated marginal means (see Table 4.21 in Appendix XII) show that there is a significant increase in the mean socio-cultural practices (*M* = 2.06) up after training on HBC from (*M* = 1.48) before the training.

Table 4.15: ANCOVA tests of effects for mean socio-cultural (posttest)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	15.45[a]	2	7.73	96.24	.00	.55
Intercept	37.61	1	37.61	468.60	.00	.75
MeanSocioCultural_1	2.56	1	2.56	31.90	.00	.17
Group	13.33	1	13.33	166.13	.00	.51
Error	12.60	157	.08			
Total	527.66	160				
Corrected Total	28.05	159				

Note:

R Squared = .55 (Adjusted R Squared = .55)

N for control group = 80

N for intervention group = 80

Fisher's Least Significant Difference (LSD) post hoc tests (see Table 4.22 in Appendix XII) show that there was a significant difference between intervention group and control group (M = 0.58, $p < 0.01$, confidence interval = [0.49, 0.67]). The result indicates a significant intervention effect, implying that training men on HBC involvement had effect on the respondents' perception of socio-cultural practices regarding men involvement in HBC activities for PLWHA in Kisii County.

4.5.1 Factors Hindering Men Involvement in Home-based Care Activities

The study also sought to determine fators hindering men involvement in HBC activities for PLWHA as part of assessing men involvement in HBC activities. When asked to state any other beliefs or socio-cultural constraint hindering male involvement in HBC activities, respondents elicited various reactions. These were grouped into themes and a total of five main themes emerged namely spiritual factors, economic factors, social factors, cultural factors and individual factors. Sub themes were used to determine the frequency of mention and the results is summarised Table E1. Table 4.16 provide sample summarised responses from participants with regard to the sub-themes identified.

Table 4.16: Factors hindering men involvement in HBC activities

Themes	Sub-themes	Summary of sample responses of participants	Freq(%)
Spiritual Factors	Spiritual beliefs	▪ Christian beliefs	2 (1.41)
Economic Factors	Employment	▪ Employed elsewhere ▪ Being unemployed	4(2.82)
	Income	▪ Work doenst pay	1(0.70)
Social Factors	Peer pressure	▪ Refusal by wives ▪ Peer influence from other men	4(2.82)
	Stigmaisation	▪ Stigma among community elders ▪ Some people might feel that you are weak or HIV positive ▪ Anyone who take an active role is believed to be HIV positive ▪ Stigma disclosure of status	25(17.61)
	Social beliefs	▪ It's a taboo for a man to wash clothes for the family and do other general cleanliness ▪ Men who take part in HBC activities are bewitched ▪ Taking care of HIV patients makes one get infected ▪ Womens' work shoulnt be done by men	39(27.46)
	Nature of work	▪ HBC is not mens work but rather womens' ▪ It involve working far away from home ▪ Nature of work does not respect men ▪ Man should do things of more importance than HBC	17(11.97)
	Training	▪ Lack of training on HBC ▪ Lack of knoeledge on HBC activities ▪ Lack of exposure on HBC activities ▪ Lack of awareness on HBC activities and men involvement ▪ Lack of information on HBC activities ▪ Lack of enough skills	15(10.56)
Cultural Factors	Cultural practices	▪ Wife inheritance ▪ Witchcraft	4(2.82)
Individual Factors	Fear	▪ Fear of HIV infection through washing and greeting HIV sick persons ▪ Fear of being seen by other men ▪ Fear my wife who doesn't allow me to ▪ Fear that it's the work of women ▪ Not permitted as a man to be in another man's home taking care of the sick	14(9.86)
	Shyness	▪ Am embarassed by the work ▪ My shyness ▪ Work is shamefull	4(2.82)
	Alcoholism	▪ Alcohol consumption	1(0.70)
	Ignorance	▪ Men are ignorant on such matters as it doesn't concern them	4(2.82)
	Disrespect	▪ I will lose respect in the society if am seen ▪ If I do the work, my wife will disrespect me ▪ The work is humiliating to men	3(2.11)
	Willingness	▪ Lack of willingness to get involved	2(1.41)
	Privacy	▪ Work isnt private in nature	1(0.70)
	Laziness	▪ Laziness	1(0.70)
	Relationship	▪ Protect relationship with my wife since my wife doesn't allow me to get involved with HIV sick persons	1(0.70)
Total			**142(100.00**

Note: Freq – Frequency of count

The table 4.16, indicate that social factors accounted for the greatest percentage of hindrance (70.42%) with spiritual factors accounting for the least (1.41%) hindrance of men involvement in HBC for PLWHA. Of the social factors, social beliefs accounted for the greatest percentage of hindrance (27.46%), followed by stigmatization (17.61%) and the least being peer pressure at 2.82%.

4.5.2 Eliminating Socio-cultural Constraints on Men Involvement in HBC

Respondents were further required to state way that could be used to eliminate beliefs and socio-cultural constraints on men involvement in HBC for PLWHA. Respondents provided various responses that were grouped into spiritual support, training and education, stigma management and changing perception about life as shown in table 4.17.

Table 4.17: Ways to eliminate beliefs and socio-Cultural constraints on men involvement in HBC

Themes	Summary of sample responses of participants	Frequency (%)
Spiritual support	▪ Be Christians ▪ Be preached to and believe in righteousness ▪ Spiritual encouragement to men ▪ Go to church and stick to their beliefs ▪ Spiritual support and encouragement	13(10.92)
Training and education	▪ To organize seminars and more training to inform men on HBC ▪ More training and outreaches to reach more men ▪ Encouraging more health education in the society for more involvement ▪ They should be continually be given trainings on HBC activities to loosen their stance ▪ Education on care and prevention ▪ People should be sensitized on HBC importance ▪ Increase more skills for men and boys. ▪ Form groups and meet and be taught	56(47.06)
Stigma management	▪ Come together and be trained and avoid stigma. Training on general work avoid being shy ▪ Training and stigma reduction	3(2.52)
Change perception about life	▪ Men to involved fully for supporting HBC without hearing what other will say ▪ To change their old customs ▪ To live old culture ▪ Men should be equally involved in HBC and leave superiority complex. ▪ It's important for all of us to work together as a team ▪ Both male and female to attend meetings at the same time. ▪ Male to take positive attitude on HBC ▪ Home-based care is a role of everybody ▪ Treat and see each other as equals	47(39.50)
Total		**119(100.00)**

Matters to do with “training and education” were mentioned severally by respondents. This accounted for 47.06% followed by “changing perception about life” at 39.50%. Stigma management was the least mentioned at 2.52%.

In qualitative analysis with the FGD, participants gave reasons such as denial of their HIV status, fear of knowing their HIV status, partner, partner reactions and lack of confidentiality as a reason for uptake of HBC. They agreed that the solution would be HBC trainings and advocacy in the community. There were also believes that HBC make male participants to practice wife inheritance and therefore increase the rate of promiscuity. participants reported that spousal support has improved but some reported resistance when partner request to attend HBC services. Despite many challenges experienced by the groups. one man commented,

"*I will continue to do HBC because" I don't care about stigma because my health is paramount".*

Another man commented, "*Also my father cannot enter my house to help me or my wife, even if we are sick, he will get someone else to help".* He added, *"it is a taboo in the community I was born and found it there".*

Also it was expressed in the interview with the community health worker, He said,

"*There is free access to HIV and AIDS men patient than before because there is reduction of fear and stigma in the community".*

In focused group discussion one man said, "*Sometimes we men we want to help at home but there things(norms and taboos) that don't allow us high extent of involvement. We do help where we are comfortable areas,"* He added, *"For example if you are married or circumcised man you will not give certain care or enter certain rooms even if you are alone. Therefore, you will get a woman to do it".*

Another man commented, *"Also my father cannot enter my house to help me or my wife, even if we are sick, he will get someone else to help".* He added, *"It is a taboo in the community, I was born and found myself there".*

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Discussions

Participant knowledge on HBC activities for PLWHA in the quantitative study was assessed using their awareness of HBC for PLWHA, formal training in HBC for PLWHA, skills on HBC, awareness of male involvement in HBC activities and their involvement in any HBC support group within their community.

Both qualitative and quantitative study revealed that men were somehow aware of HBC activities related to nursing care, clinical care, counselling, psycho-spiritual care and social support services. The results of the quantitative study indicated that majority (76.90%) of the participants were aware of HBC activities for PLWHA in Kisii County. This level of awareness among participants can be attributed to various programmes in the county that focuses on PLWHA as described in section 3.1. It can also be attributed to the sustained and improved health education programmes in the county and Kenya at large. This generally corroborates results of Wesonga (2015) who found out that the majority of the respondents were aware of the existence of HBC for people living with HIV and AIDS due to intervention programmes by the government and other stakeholders in the community. The awareness included HBC activities like HIV testing and counselling, drug adherence, feeding and nutrition program, care giving and nursing, and cleanliness and hygiene. Of these HBC activities, respondents reported to have more awareness on HIV testing and counselling (37.50%) followed by drug adherence (26.79%). HIV testing and counselling is a common practice in almost every community, medical service providers and Voluntary Counselling and Testing (VCT) centres that provide the services for free. This explains its high level of awareness by the respondents. Hence, usually the first HBC activity a client is subjected to in matter related to HIV and AIDS. Drug adherence is also an important HBC that patients with HIV and AIDS and their caregivers should be aware of. Drug adherence relates to the extent to which patients take medications as prescribed by their healthcare provider. The awareness on drug adherence could be attributed to consequences of poor adherence

to HIV and AIDS medicine including low immune system, increased risk of drug resistance and treatment failure. It can also be attributed to drug adherence counselling programme that targets PLWHA in the community. The findings generally relate to Zhang *et al.* (2012) who noted that HIV testing and counselling is an important entry point for HIV-infected individuals to access further HIV-related care and treatment including drugs.

While majority of the participants were aware of HBC activities for PLWHA, only 35.00% of the respondents had formal training in HBC activities. Training areas included drug adherence, drug adherence, counselling and testing, nutrition and feeding, care and nursing, prevention, cleaning and hygiene, and stigma management in that order. While formal training in HBC would be considered relevant in HBC programmes, it requires significant amount of resources including time and finances. Most of the training are also done casually at the clinic when attending routine Patient Support Centre clinics and collecting drugs or in churches as elucidated by respondents in the FGDs and KIIs. This explains the low percentage of the respondents with formal training on HBC. The finding agrees with other previous research (Abuki *et al.*, 2013; Makori *et al.*, 2011) in Kenya that found out that few men care givers had formal training on HBC services for PLWHA.

Both qualitative and quantitative study revealed general inadequacy in terms of HBC skills possessed by men in Kisii County. The results of the quantitative study for instance indicated that only 38.75% of the participants possessed skills on HBC activities. This somehow reflects the percentage of respondents with formal training implying that most of the skills on HBC can be acquired through formal training. These included skills related to drug adherence, nutrition and feeding, counselling and testing, care and nursing, and prevention. The difference can be attributed to the casual training given to some of the caregivers as already explained in section 5.2.1.2 above as well as experience acquired through working in HBC programmes or staying with PLWHA. This corroborates findings of the qualitative study where respondents felt that some men possess skills in areas such as counselling, drug administration and follow ups, nutrition and feeding, HIV testing and counselling, caregiving, nursing and prevention of new infections. Of the many skills on HBC,

majority of the participants mentioned having skills on HIV testing and counselling at 40.00% followed by care and nursing at 20.00%. These are crucial skills that should be possessed by all those involved in HBC programmes for PLWHA. Inadequate skills on HBC activities due to lack of training and education was considered one of the impeding factors towards men involvement in HBC for PLWHA. The study generally found that few of the caregivers had the necessary skills for HBC. This is in line with other studies (Hall *et al*., 2006; Malale, 2011) that found out that voluntary male caregivers had inadequate skills in HBC, particularly nursing skills.

The qualitative study revealed that majority of HBC were left for women to do and that fewer men generally were involved. Similarly, there was a general feeling that men were increasingly getting involved in HBC activities though were still being held back by some socio-cultural practices and beliefs. Low involvement of men could also be attributed to inadequate formal training they have received regarding HBC activities for PLWHA. Quantitative study also revealed 61.25% of men were aware of male involvement in HBC activities for PLWHA in Kisii County. This level of awareness can be attributed to the growing concern to involve men in the provision of HBC services for PLWHA. Participants in the qualitative study in particular felt the need to have more men involved in HBC activities in order to serve the community at large including their own relatives. According to VSO-RAISA (2008), men are slowly getting involved in HIV & AIDS responses including HBC as it offers important benefits. Respondents mentioned that men should be trained in HBC activities including drug adherence, care and nursing, nutrition and feeding, prevention, HIV testing and counselling in that order of importance. Drug adherence has been mentioned as an important component of HBC for PLWHA in section 5.2.1.1. Majority of the respondents therefore felt the need to train men on drug adherence as part of the HBC activities.

A person's attitude generally determines whether they will get involved in something (in this case HBC activities for PLWHA) or not. In the qualitative study, there were feelings that men should change their attitude towards HBC activities and stop looking at it as a women's affair only. Men's attitude towards HBC involvement for

PLWHA among the participants in the quantitative study was assessed by comparing means of various variables on pre and post intervention. A one-way ANCOVA was then conducted to compare the effectiveness of training on attitude whilst controlling for pretest scores. The study results generally revealed that respondents were undecided or disagreed with some of the variables under consideration. For instance, on whether male HIV patients should be attended to by male caregivers only, both pretest and posttest mean scores showed that participant did not agree to this. They also believed that HBC volunteer isn't meant for women and girls only implying that that men can also be involved. The participants also did not agree that HBC programmes have done little to involve men implying that men are involved in HBC programmes. On the remaining attitude attributes ("Male volunteers can attend Home-based care training if invited by health workers, Men are willing to be involved in HBC activities and Men and boys should be involved in care giving for the people living with HIV and AIDS"), respondents remained undecided.

The ANCOVA results revealed that that there was a significant difference in mean attitude $F [(1, 157) = 2993.20, p < 0.01]$ between the groups (intervention and control groups), whilst adjusting for pretest mean scores. The Eta Squared value for the group indicates that the effect size was large (0.95) and that 95% of the variance in attitude change could be explained by training men on HBC activities for PLWHA. This shows a significant intervention effect implying that training was crucial in changing the attitude on men regarding their involvement in HBC activities for PLWHA. This corroborates Makori, *et al.* (2011) who found out that full participation of males' involvement in HIV home care is hindered by the negative attitude from men. They believed that this can be addressed by training to improve and encourage males in giving home-based care services. Some research shows that, HBC services are seen as domestic and hence considered as the role of the females as part of their responsibilities as the care providers in the families. However, other studies show that if they are put into consideration, men are more likely to listen to, accept, discuss and share issues related to HIV/AIDs including care and support (Hall *et al*., 2006).

The mean comparison of extent of men involvement in HBC activities for PLWHA indicated general increase in extent of men involvement in HBC activities in the posttest. The extent of involvement however varied based on the nature of HBC activities. For instance, while counselling and spiritual support registered some extent of involvement in both pretest and posttest, bed bath to HIV and Aids patients registered little involvement in both cases. The ANCOVA results show that there was a significant difference in mean involvement $F [(1, 157) = 3558.78, p < 0.01]$ between the groups (intervention and control groups), with the Eta Squared value for the group indicates that about 96% of the variance in extent of involvement is explained to some extent by training. The results show that men with training can be involved in HBC activities to some extent, although the level of involvement would vary depending on the nature of activity. Men would be involved in some general HBC activities like counselling, make referrals to health care centres, first aid provision to patients. After undergoing training, men were also to some extent getting involved in HBC activities such as fetching water and cooking. Similar results were revealed in the qualitative study where respondents reported positive involvement of men in HBC activities. These are activities previously considered domestic in nature and could only be done by women and girls in the community. This contradicts Hall *et al*, (2006) that found out the male voluntary caregivers had difficulties to move beyond their comfort zone to provide certain nursing care that included activities that were domestic in nature. The findings however generally support many other previous research (Abuki *et al.,* 2013; Makori *et al.,* 2011; Johnsons *et al.,* 2003; Peacock, 2003) who concur that training caregivers on HBC activities enhances their involvement in HBC programmes and activities for PLWHA. This significant increase in men involvement on HBC activities after training imply that men would be willing to play a practical role in promoting the health of their families, neighbours and communities hence can be influential in the society if trained. The study findings further support Abuki *et al*. (2013) who indicated lack of training as one of the key factors responsible for the low involvement of men in HBC.

Participants were assessed on the socio-cultural factors associated with men involvement in HBC for HIV. Tshibumbu (2006) research showed that, socio-

cultural practices influence the level of men's involvement in HBC. While socio-cultural practices influence men involvement in HBC activities, this present study generally indicated general disagreement among participants on a number of socio-cultural practices. Every community has cultural practices that governs their way of life and code of behaviour. Training, awareness creation and exposure to other ways of life significantly changes peoples believes and long-standing socio-cultural practices. For instance, it was uncommon for a man to be seen accompanying a woman to the clinic, cooking and fetching water when married, doing house chores and so on. If a man would be seen doing these activities, they would be discriminated as bewitched by their women or were just weak before their women. However, changing lifestyle and training is changing all these perceptions altogether. The ANCOVA results show that there was a significant difference in mean socio-cultural practices $F [(1, 157) = 166.13, p < 0.01]$ scores with Eta Squared value indicating that 51.00% of the variance in socio-cultural practices is explained by training men on HBC involvement for PLWHA. Results generally a significant increase in the mean socio-cultural practices implying a significant intervention effect. This supports Abuki *et al.* (2013) who reported a positive change in men beliefs and attitude towards HBC after training and creation of knowledge awareness on HBC activities. It also corroborates Kwambai *et al*. (2013) who reported that, men were very positive about attending trainings in relation to being involved in healthcare service delivery programs. Germain (2009) suggested that by training, men will understand the need for them to be involved in HBC practices. Training is therefore an effective strategy of reducing the negative impact of socio-cultural factors influencing men's involvement in HBC activities.

While training accounted for 51.00% of the variance explained in socio-cultural practices and male involvement in HBC, the findings further suggested that other factors including spiritual, economic, social, cultural as well as individual constrained the involvement of men in HBC activities for PLWHA. Cultural beliefs and taboos coupled with economic power and social responsibilities have been cited earlier by other researchers as the major factors hindering males' involvement in HBC (Makori *et al.,* 2013). This, the respondents believed could be eliminated through mainly training and educating men on HBC and changing men's perception

about social life issues. Mobilising and training men on HBC were believed to increase men skills and provide them with more knowledge on HBC activities. However, respondents it could change their perception generally about life and the community at large regarding some social practices. This supports Bacon *et al.,* (2002) who found out that that mobilization of care givers was a successful strategy towards scaling up men involvement in HBC. Training would increase knowledge and openness about HIV and AIDS and gender among men, reduced stigma and discrimination of PLWHA by men. A similar finding was reported by (Campbell & Macmillan, 2012) thus this present study provide support to their findings.

5.2 Conclusions

This study set out to determine the effects of training men on home-based care involvement for people living with HIV and AIDS in Kisii County, Kenya. It adopted a non-equivalent group design (NEGD), a subset of quasi experimental design, that targeted 180 respondents who self-selected themselves into two groups, control and intervention. Both groups were subjected to pretest survey, then the intervention group trained on HBC activities after which the two groups were surveyed again. Data collected were analysed both qualitatively and quantitatively as guided by the specific objectives of the study.

The study revealed that men had knowledge in terms of awareness on HBC activities. The level of awareness was attributed to the growing concern to involve men in the provision of HBC services for PLWHA. Despite this awareness, women were more involved in HBC activities than men, and this was attributed to socio-cultural practices, beliefs and norms in the community as well as minimal formal training on HBC activities targeted at men. The study also revealed that few men had formal training and possessed skills in HBC activities related to Drug adherence, HIV testing and counselling, nutrition and feeding, care and nursing infection prevention, cleaning and hygiene, and stigma management.

Generally, participants reported mixed feeling regarding men attitude towards HBC involvement for PLWHA. Of importance was that men should change their attitude towards HBC activities and stop looking at as ‘a women only job’. HBC for PLWHA

calls for the input of both men and women alike for the betterment of the community at large. Therefore, HBC volunteer isn't meant for women and girls only implying that that men can also be involved. With training and having the right attitude, however, male involvement in HBC can be increased.

Men involvement in HBC activities varied depending on the nature of the HBC activity. HBC activities that were general or administrative in nature like HIV testing and counselling, make referrals to health care centres, first aid provision to patients and spiritual support registered some extent of involvement compared to HBC activities that were related to domestic work such as cooking, and fetching water. However, after administering the training intervention, men were getting more involved in domestic work-related HBC activities such as fetching water and cooking. This implied a significant intervention effect. Training men on drug adherence, nutrition and feeding, HIV testing and counselling, care and nursing and infection prevention would generally increase their involvement in HBC activities for PLWHA in Kisii County.

The study indicates that socio-cultural practices, beliefs and norms constraints the level of men involvement in HBC activities for PLWHA. Although men would want to be fully involved in HBC activities, they are hindered by a number of socio-cultural factors that creates a perception among men with regard to HBC and their role as men in the community. The study indicates that training may significantly reduce socio-cultural perception of men regarding involvement in HBC activities for PLWHA in Kisii County. Training, awareness creation and exposure to other ways of life significantly changes peoples believes and long-standing socio-cultural practices. Training, however, may explain only about 50% of the variation in the perception as other factors other factors including spiritual, economic, social, cultural as well as individual constrain the involvement of men in HBC activities for PLWHA. Therefore, the study demonstrates that training has effects on men involvement in home based care for people living with HIV and AIDS in Kisii County. Men can take proactive roles in home based care activities if their attitude and perceptions about socio-cultural practices can be changed through given knowledge.

5.3 Recommendations

1. Training and creating awareness on the importance of men involvement can play a positive impact towards improving men's participation in HBC issues. There is a general need to sensitise men in Kisii County on the need to involve themselves in HBC activities for PLWHA. The government should come up with policies and planning intervention strategies in implementing and encouraging men involvement in home-based care programmes and at homes in Kenya. It should also come up with a national guideline for male involvement in home-based care for people living with HIV and AIDS in Kenya.
2. Projects targeting male involvement should be initiated within HBC programs to enhance male involvement and participation. Peer support initiatives within HBC program should also be facilitated to help reduce stigma among HBC clients and at families or community level.
3. Government and NGOs should focus on funding and implementing further gender and behaviour- change programmes in the whole county that create the space for dialogue in communities around gender and gender equality.
4. Governments, NGOs and private sector should increase their education, outreaches, advocacy, seminars and lobbying activities for people living with HIV/AIDS in Kenya to ensure that cultural and patriarchal dynamics that perpetuate gender inequality are adequately addressed, to bring in a new light of understanding and dispensation where men and women equally participate as caregivers of persons living with HIV/AIDS.

5.3.1 Recommendations for Further Studies

1. A longitudinal interventional research project to find out the effects of advocating Men on Home-based Care involvement for people living with HIV and AIDS in the whole of Kenya.
2. A further research is required on challenges faced by male caregivers as men could potentially play a valuable part in providing palliative care in rural and urban homes.

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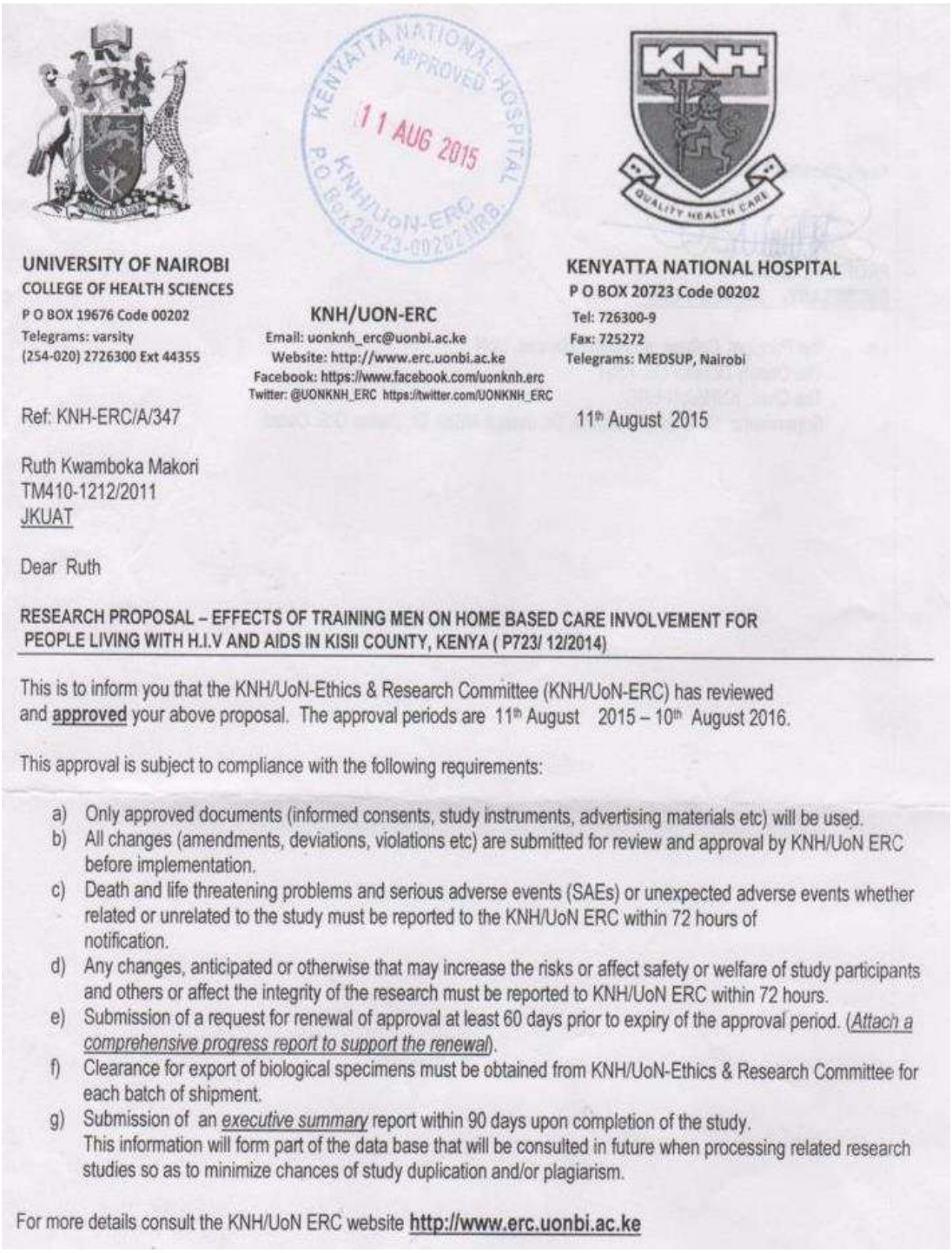
APPENDICES

Appendix I: Ethical Approval Letter from Nairobi University and Kenyatta National Hospital Ethical Committee.



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11th August 2015

Ruth Kwamboka Makori
TM410-1212/2011
JKUAT

Dear Ruth

RESEARCH PROPOSAL – EFFECTS OF TRAINING MEN ON HOME BASED CARE INVOLVEMENT FOR PEOPLE LIVING WITH H.I.V AND AIDS IN KISII COUNTY, KENYA (P723/ 12/2014)

This is to inform you that the KNH/UoN-Ethics & Research Committee (KNH/UoN-ERC) has reviewed and **approved** your above proposal. The approval periods are 11th August 2015 – 10th August 2016.

This approval is subject to compliance with the following requirements:

a) Only approved documents (informed consents, study instruments, advertising materials etc) will be used.
b) All changes (amendments, deviations, violations etc) are submitted for review and approval by KNH/UoN ERC before implementation.
c) Death and life threatening problems and serious adverse events (SAEs) or unexpected adverse events whether related or unrelated to the study must be reported to the KNH/UoN ERC within 72 hours of notification.
d) Any changes, anticipated or otherwise that may increase the risks or affect safety or welfare of study participants and others or affect the integrity of the research must be reported to KNH/UoN ERC within 72 hours.
e) Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. (*Attach a comprehensive progress report to support the renewal*).
f) Clearance for export of biological specimens must be obtained from KNH/UoN-Ethics & Research Committee for each batch of shipment.
g) Submission of an *executive summary* report within 90 days upon completion of the study. This information will form part of the data base that will be consulted in future when processing related research studies so as to minimize chances of study duplication and/or plagiarism.

For more details consult the KNH/UoN ERC website **http://www.erc.uonbi.ac.ke**

Appendix II: Permission Letter from Kisii County Medical Office of Health.

MINISTRY OF HEALTH

Telegramme "medical" Kisii
Telephone: (058) 31310 Kisii
Email:kisiihospital@gmail.com
Web: www.kisiihospital.org.ke

DEPARTMENT OF RESEARCH
THE KISII TEACHING & REFERRAL HOSPITAL
P.O. BOX 92
KISII

REF. NO. DATE: 8th December, 2015

RUTH KWAMBOKA MAKORI
RE: DATA COLLECTION

This is to inform you that the research department of Kisii Teaching and Referral Hospital has reviewed your proposal titled

"Effects of training men on home based care involvement for people living with HIV and AIDS in Kisii County,Kenya."

The following are our comments.

1) You have been authorized to proceed with data collection upon payment of five thousand shillings (Ksh 5,000/=).
2) Ensure confidentiality for your study subjects.
3) Ensure data collected is used for academic purposes only.
4) Ensure a copy of the final report is submitted to this office for retention and use.

DR. E.B. MASANTA -MBCHB (UoN), MPH (Epidem) (JOOUST), PGDPM (KIM) Applied Epidem & Bio (UoN).
DEPARTMENT OF RESEARCH
CC; SMOH NYARIBARI CHACHE
SMOH KISII SOUTH

Appendix III: Consent Form

Introduction

My name is Ruth Kwamboka Makori. I am PhD Student in Public Health from JKUAT. You are invited to take part in a research on effects of training men on home-based care activities for people living with HIV and AIDS in Kisii County, Kenya. You are a potential participant because you are right man to give information on home-based care for living with people living with HIV and AIDS in Kisii County, Kenya. We ask that you read this form before agreeing to be in the research. If you cannot read, you can request the researcher or a researcher assistant to read it to you.

Purpose

The purpose of the research is to determine effects of training Men on home-based care involvement for people living with HIV and AIDS in Kisii County, Kenya**.** Then come up with training guideline for men on Home-based care for people living with HIV and AIDS to encourage men involvement.

Procedures

If you agree to be in this research, and sign this consent form, I or my assistant will describe the questions you will be asked including their purpose. The questions should take only 20 - 30 minutes of your time.

Risks and Benefits

There are some benefits to the participants of the intervention group of getting the HBC activities knowledge and skills and no direct benefit to participant of the control group of the study. However, the major benefit of taking part is that the information that you provide to us will be used to improve the health of Kenya by helping to develop programs to involve male on Home-based care for people living with HIV/AIDS in Kenya. The risk level of this research is considered to be less than

minimal. Whereby, any risk will be controlled by having a conducive training Centre and professional trainers.

Confidentiality

The records of this study will be stored private on key and lock by principle investigator. Anything you tell us will remain confidential and private, even from your family. In any sort of report of the study, we will not include any information that will make it possible to identify you. We are not asking for your name, address, or phone number. Your name and other identifying information will not be kept with this survey. The surveys data will be kept in a locked file; only the researchers for this study will have access to the records.

Voluntary nature of study

Your participation in this study is voluntary: you are under no obligation to participate. You have the right to withdraw at any time and the relationship with the interviewers neither the organizations afflicted with the study will not be affected. You do not have to give us a reason even if you sign the consent form; you are free to withdrawal at any time. You do not need to complete it if you feel uncomfortable doing it.

Contact

The researchers conducting this study are Ruth Kwamboka Makori and her assistants. You may contact the researchers at any time. Questions regarding the rights of research subjects may be directed at the Ethical Committee at the Kenya Medical Research Institute.

In case of any queries or concerns, please contact the Principal investigator or Principal COHES, or KNH/UON-ERC on:

Ruth Kwamboka Makori

P.O. Box 4251-00100; Nairobi

Cell phone Number: +254 720707180

Email: kwambous@yahoo.com

OR The Principal;

College of Health Science

Jomo Kenyatta University of Agriculture and Technology

P.O. Box 62200-00200; Nairobi

Tel: 067-52711

Email: itromid@kemri.org

OR The Chairperson;

Kenyatta National Hospital / University on Nairobi Ethical Review Committee

P.O. Box 20723-00202; Nairobi

Tel: 726300-9

Email: uonknh_erc@uonbi.ac.

Consent

I have read the above information and understand that this survey is voluntary and I may stop at any time. I consent to participate in the study.

_____ _____

Signature of participant Date

_____ _____

Signature of researcher/ research assistant Date

Appendix IV: Sample Research Questionnaire

A study on effects of training men on involvement in home-based care for people living with HIV and AIDS in Kisii County, Kenya**.**

Instruction to the respondent:

1. The information obtained is for learning purposes only. It will be treated with confidence and shall not be used in any other way whatsoever.
2. In answering the questions, please mark with X the most appropriate option in the provided box alongside the question.
3. Please do not leave any question blank.

Date……. Recorder/Interviewer ……

Questionnaire No: ……Support group and Residence……

SECTION 1: SOCIO-DEMOGRAPHIC FACTORS

1.1 . Which age category do you fall? (Mark your appropriate answer with X)

a) 18-25[ ] b) 26-35 [ ] c) 36-45 [ ] d) Above 45 [ ]

1.2. What is your level of education? (Mark your appropriate answer with X)

a) None [ ]
b) Primary school [ ]
c) Secondary school [ ]
d) College/university [ ]

1.4. What is your marital status? (Mark your appropriate answer with X)

a) Married [ ] b) Single [ ]
c) Widow/ Widower [ ] d)Divorced/Separated [ ]

1.5. Which religion category do you fall? (Mark your appropriate answer with X)

a) Christian [ ]
b) Islam [ ]
c) Hindu [ ]
d) Buddhism [ ]

e) Others (specify)_____

1.6. What is your major occupation? (Mark your appropriate answer with X)

a) Salary employment [ ] b) Self-employment [ ]

c) Casual employment [ ] d) None [ ]

1.7. What is your level of income in a month? (Mark your appropriate answer with X)

a) Below Kshs.10, 000 [ ] b) Kshs 10,000-20,000 [ ]

c) Kshs 20,000-30,000 [ ] d) Kshs 40,000 and above [ ]

SECTION 2: KNOWLEDGE OF MEN ON HOME-BASED CARE PRACTICES

2.1.Are you aware of home-based care for people living with HIV and AIDS? (Mark your appropriate answer with X)

a) Yes [ ] b) No [ ]

If yes, which HBC for PLWHA and AIDS are you aware of?

_____

_____

_____

_____

2.2 Do you have any formal training in home-based care for people living with HIV and AIDS? (Mark your appropriate answer with X)

a) Yes [ ] b) No [ ]

If yes, highlight the areas you were trained on HBC for PLWHA and AIDS?

_____

_____

_____

_____

2.3 Do you have skills on Home-based Care activities? (Mark your appropriate answer with X)

a) Yes [ ] b) No [ ]

If yes, which particular skills do you possess?

_____

_____

_____

2.4 Are you aware of male involvement in HBC activities? (Mark your appropriate answer with X)

a) Yes [ ] b) No [ ]

2.5 Are you involved in any home-based care support group in your community? (Mark your appropriate answer with X)

a) Yes [ ] b) No [ ]

2.6 What can men be trained on to encourage them be involved in HBC for people living with HIV and AIDS?

_____

_____

_____

_____

SECTION 3: ATTITUDE

3.1 Based on the scale provided below, please tick the value that describes your opinion towards male involvement in your community based on the scale below:

1. Strongly disagree **2.** Disagree **3.** Undecided **4.** Agree **5.** Strongly agree

Attitude on men involvement in HBC practices	**SCALE**				
Male patients should be attended to by male caregivers only.	**1**	**2**	**3**	**4**	**5**
Home-based care volunteering is meant for women and girls only.	**1**	**2**	**3**	**4**	**5**
Home-based care programmes have done little to involve men.	**1**	**2**	**3**	**4**	**5**
Male volunteers can attend home-based care training if invited by health workers.	**1**	**2**	**3**	**4**	**5**
Men are willing to be involved in HBC activities	**1**	**2**	**3**	**4**	**5**
Men and boys should be involved in care giving for the people living with HIV and AIDS.	**1**	**2**	**3**	**4**	**5**

3.2 How would you rate the attitude of men in the community on male involvement in home-based care (HBC) activities for people living with HIV and AIDS? (Mark your appropriate answer with X)

Hostile [ ] Negative [ ] Indifferent [ ] Positive [ ] Enthusiastic [ ]

3.3 How would you rate the attitudes of People Living with HIV AIDS on male involvement in HBC activities for people living with HIV and AIDS? (Mark your appropriate answer with X)

Hostile [ ] Negative [ ] Indifferent [ ] Positive [ ] Enthusiastic [ ]

3.4 How would you rate the attitudes of family members on male involvement in HBC activities for people living with HIV and AIDS? (Mark your appropriate answer with X)

Hostile [ ] Negative [ ] Indifferent [ ] Positive [ ] Enthusiastic [ ]

3.5 How would you rate the attitude of the society in general towards male involvement in home-based care activities for people living with HIV and AIDS? (Mark your appropriate answer with X)

Hostile [ ] Negative [ ] Indifferent [ ] Positive [ ] Enthusiastic [ ]

SECTION 4: EXTENT OF MALE INVOLVEMENT IN HBC ACTIVITIES FOR PLWHA

4.1 Based on the scale provided below, please tick the value that describes to what extent men are involved in the following home-based care activities for people living with HIV and AIDS in your community.

1. Not at all 2. To a little 3. To some 4.To a great extent 5. Completely

HBC Activities/Practices	**SCALE**				
Counselling and giving spiritual support to people living with HIV and AIDS	1	2	3	4	5
Go together with your partners to the clinic for treatment or get Anti- Retroviral (ARVs)	1	2	3	4	5
Bed bath to HIV and AIDS patients	1	2	3	4	5
Cook for and feed the AIDS patients	1	2	3	4	5
Fetch water and make general cleanliness to the compound/house where the female is HIV ill patient	1	2	3	4	5
Support, lift and conduct physical therapy for HIV ill patient	1	2	3	4	5
Change soiled beddings and wash them for HIV and aids ill patient	1	2	3	4	5
Buy and take food to the house where the female is the HIV ill patient	1	2	3	4	5
Monitoring the Health of HIV and AIDS patients	1	2	3	4	5
Provide first Aid for burns and wounds	1	2	3	4	5

Make referral to health care centres	1	2	3	4	5
Follow up patients to ensure they take prescribed drugs accordingly	1	2	3	4	5

SECTION 5: SOCIO-CULTURAL FACTORS

5.1 Based on the scale provided below, please tick the value that describes your opinion on the following socio-cultural believes and practices according to your community.

1. Strongly disagree. **2.** Disagree. **3.** Undecided. **4.** Agree. **5.** Strongly agree

Socio-cultural believes and practices					
Men should not accompany their wives to Clinics	**1**	**2**	**3**	**4**	**5**
Men who accompany their female partners are controlled by them	**1**	**2**	**3**	**4**	**5**
It is a taboo for men to cook when married	**1**	**2**	**3**	**4**	**5**
cooking and fetching water are for women and children only	**1**	**2**	**3**	**4**	**5**
Men who do general cleanliness for the home are weak and bewitched.	**1**	**2**	**3**	**4**	**5**
If a woman is found HIV positive, she should be divorced	**1**	**2**	**3**	**4**	**5**
HIV positive man should marry another wife to take care of him	**1**	**2**	**3**	**4**	**5**
Care giving is believed to be the work of women	**1**	**2**	**3**	**4**	**5**
Men who get involved in Home-Based Care activities can be discriminated by the society	**1**	**2**	**3**	**4**	**5**
Men are afraid or embarrassed to become associated with HIV/AIDS when involved on Home-based care activities.	**1**	**2**	**3**	**4**	**5**
Men increased role in domestic activities is a sign that the wife is lazy or incompetent woman	**1**	**2**	**3**	**4**	**5**

5.2 State any other beliefs you think hinders male involvement in HBC activities

_____

_____

_____

_____

5.3 Give other specific socio-cultural constraints on male involvement in HBC activities

_____

_____

_____

_____

5.4 Give your views for tackling socio-cultural constraints to encourage male involvement in HBC activities.

_____

_____

_____

_____

END

Thank you for your participation

Appendix V: Key Informant Interview

My names are Ruth Kwamboka Makori, a PhD student from college of Health Sciences, Jomo Kenyatta University of Agriculture and Technology. I am studying on effects of training men on Home-based Care involvement for people living with HIV and AIDS in Kisii County, Kenya. I would wish that we discuss a few issues related to male involvement in Home-based Care, therefore, feel free to decide to participate.

1. Knowledge

   -What are Home-based Care activities men are aware?

   -Who are involved in Home-based Care for people living with HIV/AIDS?

   -What are the skills men have in HBC activities for people living with HIV and AIDS?

2. Level of men involvement

   -Who are more involved in HBC for people living with HIV and AIDS in this County?

   -Which HBC activities are more or less involved by men in this county?

3. Attitude

   -What is the perception of men towards HBC for people living with HIV and AIDS?

4. Socio-cultural factors

-What are beliefs toward men involvement in HBC for people living with HIV and AIDS?

-What are taboos towards men involvement in HBC for people living with HIV and AIDS?

-What are norms towards men involvement in HBC for people living with HIV and AIDS?

- What are other socio-cultural factors hindering male involvement in HBC for people living with HIV and AIDS?

-What are the effective ways of tackling these socio-cultural factors?

Thank you for your participation.

Appendix VI: Focus Group Discussion Guide

Introduction

My names are Ruth Kwamboka Makori, a PhD student from College of Health Sciences, Jomo Kenyatta University of Agriculture and Technology. I am carrying out a study on effects of training men on Home-based Care involvement for people living with HIV and AIDS in Kisii County, Kenya. I would wish that we discuss a few issues related to male involvement in Home-based Care, therefore, feel free to decide to participate.

1. Knowledge

   -What are Home-based Care activities are you aware?

   -What are the skills do you have in HBC activities for people living with HIV and AIDS?

2. Level of men involvement

   -Who are more involved in HBC for people living with HIV and AIDS in this County?

   -Which HBC activities are more or less involved by men in this county?

3. Attitude

   -What is the perception of men towards HBC involvement for people living with HIV and AIDS?

-What is the perception of family members towards HBC activities for people living with HIV and AIDS?

-What is the perception of community members towards male involvement in HBC activities for people living with HIV and AIDS?

-What are the effective ways of tackling negative attitude affecting male involvement?

4. Socio-cultural factors

-What are the beliefs toward men involvement in HBC activities for people living with HIV and AIDS?

-What are the taboos towards men involvement in HBC activities for people living with HIV and AIDS?

-What are the norms towards men involvement in HBC activities for people living with HIV and AIDS?

- What are other socio-cultural factors hindering male involvement in HBC for people living with HIV and AIDS?

-What are the effective ways of tackling these socio-cultural factors?

Thank you for your participation

Appendix VII: Consent Form Translated in Kiswahili

(KIAMBATISHO 5: FOMU YA IDHINI)

UTANGULIZI

Majina yangu in Ruth Kwamboka Makori. Mimi ni mwanafunzi katika chuo kikuu cha JKUAT na ninasomea shahada ya ushamifu (PhD) katika maswala ya afya ya kijamii. Nawaomba mshiriki katika utafiti huu kuhusu madhara ya kuwafahamisha au kuwaelimisha wanaume nanma ya kuwahudumia watu wanaoathirika na ugonjwa wa ukimwi katika kaunti ya Kisii, Kenya. Wewe ni mshiriki uliyehimarika kwa vile jinsia yako ni ya kiume kwa hivyo utatoa maoni kuhusu namna ya kuishi na watu walioathirika na ugonjwa wa ukimwi katika kauti ya Kisii, Kenya. Tunakuomba usome fomu hii kabla ushiriki katika utafiti. Ikiwa hutakua na uwezo wa kuisoma, unaweza kumwomba mtafiti au naibu wa mtafiti akusomee.

LENGO/ MADHUMUNI

Lengo kuu la utafiti huu ni kujaribu kuona namna ya kuwafahamisha na kuwahusisha wanaume katika kuwashughulikia watu wanaoathirika na ugonjwa wa ukimwi katika kaunti ya Kisii. Kisha nipate nyenzo elekezi ya kuwafundisha wanaume namna ya wao kushiriki katika kuwashughuliki watu wanaoathirika na gonjwa la ukimwi kwa kutoa mchango wao.

UTARATIBU

Ukiamua kushiriki katika utafiti huu, utie sahihi katika fomu hii, mimi au naibu mtafiti wangu atajadili maswali yatakayoulizwa na malengo yao. Maswali yatachukua kati ya dakika 20-30 ambao ni mda wako.

HATARI NA UMUHIMU

Kuna umuhimu wa wataokaoshiriki katika funzo hili kwa kupata mafundisho na maarifa. Ijapo, hakuna manufaa ya moja kwa moja kwa wale ambao watasajiriwa na hawatapata mafunzo. Kiwango cha hatari ya utafiti huu ni kidogo kuliko manufaa yake. Hata hivyo, itazuhiwa kwa kuwepo kwa mazingira bora katika vituo vya mafundisho na waelekezi waliohitimu.

USIRI WA UTAFITI

Rekodi za utafiti huu zitahifadhiwa kwa usiri mkubwa na mhojaji. Chochote utakachokisema ama kutuambia kitahifadhiwa kwa siri. Pia, kuna usiri mkubwa wa kutotoa yale ambayo umetuambia hata kukuhusu. Hii ni kwa sababu hatutakuomba hutuambie jina lako, anwani yako wala nambari yako ya simu.Ujumbe au deta hii itahifadhiwa na mhojaji.

HIARI YA KUSHIRIKI KATIKA UTAFITI

Kushiriki kwako katika utafiti huu ni kwa hiari. Hutalazimishwa kushiriki au kutoshiriki kwa sababu una haki ya kukubali au kukataa. Hata kama ulikuwa umekubali, uko huru kubadilisha nia.

MAWASILIANO

Watafiti wanaoshughulikia utafiti huu ni Ruth Kwamboka Makori na naibu wa mtafiti. Unaweza kuwasiliana nasi kwa wakati wowote. Maswali kuhusu haki za mafunzo ya utafiti yanaweza kuwasilishwa kwa kamati ya maadili katika taasisi ya wauguzi na utafiti, Kenya.

Ukiwa na maswali au wasiwasi, wasiliana na mtafiti mkuu au mkuu wa uchunguzi au mkuu wa COHES au KNH/UON-ERC kwa:

Ruth Kwamboka Makori

Sanduku la Posta: 4251-00100, Nairobi

Nambari ya simu: +254720707180

Mtandao: kwambous@yahoo.com

Au The Principal;

College of Health Science

Jomo Kenyatta University of Agriculture and Technology

Sanduku la Posta 62200-00200; Nairobi

Nambari ya simu: 067-52711

Mtandao: itromid@kemri.org

Au Mwenyekiti;

Kenyatta National Hospital / University on Nairobi Ethical Review Committee

P.O. Box 20723-00202; Nairobi

Nambari ya simu: 726300-9

Mtandao: uonknh_erc@uonbi.ac

MAKUBALIANO

Nimeisoma nakala hii na nikaelewa kuwa utafiti huu ni wa hiari na kuwa ninaweza kushiriki au kutoshiriki. Ninabubali kushiriki katika utafiti huu.

_____ _____

Sahihi ya anayeshiriki/mhojiwa

Tarehe

_____ _____

Sahihi ya mtafiti/naibu wa mtafiti Tarehe

Appendix VIII: Questionnaire Translated in Kiswahili

(KIAMBATISHO 6: HOJAJI YA WANAUME KATIKA ENEO LA KAUNTI YA KISII)

Huu ni utafiti wa madhara ya kuwaelimisha wanaume namna ya kuishi na kuwashughulikia watu walioathirika na ugonjwa wa ukimwi katika kaunti ya Kisii, Kenya.

MAAGIZO KWA MHOJIWA:

a. Habari hii itatumika kwa lengo la mafundisho.

b. Katika kujibu maswali unaombwa uweke alama ya (x) katika kisanduku ulichopewa.

c. Unaombwa ujibu maswali yote bila ya kuacha pengo lolote.

Tarehe……... Mhojaji……

Nambari ya hojaji……. Chama/unakoishi……

KITENGO CHA 1: SABABU ZA IDADI YA KIJAMI YA WATU

Unapatikana katika kategoria gani ya umri

18-25[ ] 26-35[ ] 36-45[ ] 46 na zaidi

1.2. Kiwango chako cha elimu ni kipi?

Shule ya msingi [ ] Sekondari [ ] Chuo kikuu [ ]

1.3. Ndoa?

Kapera [ ] mjane [ ] Umetalikiwa [ ] Umeolewa [ ]

1.4. Unafanya kazi ya aina gani ?

Kuajiriwa [ ] kujiajiri [ ] ya malipo ya kila siku [ ]

1.5. Taja kiwango cha pesa unazopata kwa mwezi?

Chini ya 10,000 [ ] 20,000 [ ] 30 000 [ ] 40,000 na zaidi [ ]

KITENGO CHA 2: MAARIFA

Ufahamu kuwa kuna huduma ya kuwashughulikia watu walioathirika na ugonjwa wa ukimwi?

Ndio [ ] La [ ]

2.2. Una mafunzo yoyote rasmi kuhusu namna ya kuwashughulikia watu walioathirika na ugonjwa wa ukimwi?

Ndio [ ] La [ ]

2.3. Una maarifa kuhusu huduma hii?

Ndio [ ] La [ ]

2.4. Una habari yeyote kuhusu kushiriki kwa wanaume katika kuwashughulikia wa walio na ukimwi?

Ndio [ ] La [ ]

KITENGO CHA 3: KIWANGO CHA KUSHIRIKI KWA WANAUME WALIOPATA MAFUNZO

3.1.Kutegemea mizani iliyopo kwenye jedwali, weka alama ya (X) kuonyesha kiwango cha kushiriki kwa wanaume waliopata mafunzo katika huduma ya watu wanaoishi na ukimwi katika jamii yako.

1=Hakuna 2= Kidogo tu 3= Kiasi 4= Pakubwa 5=Kabisa

SIFA	MIZANI				
Kupeana ushauri nasaha pamoja na msaada wa kidini kwa wa walio na ukimwi.	1	2	3	4	5
Kuandamana na mwenzako kutafuta matibabu au tembe za ARV'S.	1	2	3	4	5
Kumwosha mgonjwa aliyelemewa kitandani.	1	2	3	4	5
Kuwapikia na kuwalisha walio na ukwimwi.	1	2	3	4	5
Kumchotea maji na kumfanyia usafi mwanamke aliye na ukimwi.	1	2	3	4	5
Kuwafanyisha mazoezi na kuwapa msaada walio na ukimwi.	1	2	3	4	5
Kuwaoshea malazi mchafu walo na ukimwi.	1	2	3	4	5
Kununua na kumpelekea chakula mwanamke aliye na ukimwi.	1	2	3	4	5
Kuangazia afya ya walio na ukimwi.	1	2	3	4	5
Kuwapa huduma ya kwanza walio na vidonda.	1	2	3	4	5
Kuwapeleka hospitali walioizidiwa.	1	2	3	4	5
Kufuata na kuona kuwa walio na ukimwi wanameza dawa ipasavyo	1	2	3	4	5

KITENGO CHA 5: MTAZAMO

5.1 Kulingana na jedwali lililopo hapo chini lililo na mizani .weka alama ya X ili kutoa maoni yako kuhusu kushiriki kwa wanaume katika jamii yako.

[1=Kukukubali 2=kukataa 3=kukataa kabisa 4= kukubali 5= kukubali kabisa]

Sifa	Mizani				
Wanaume waliougua kushughulikiwa na wanaume wahudhumie tu	1	2	3	4	5
Swala la kutoa huduma hii ni la wanawake na wasichana tu	1	2	3	4	5
Wanaume wamashirikishwa kwa kiwango kidogo	1	2	3	4	5
Wanaume wanaojitolea wanaeza kuudhuria masomo rasmi iwapo wataitwa na wahudumu wa afya	1	2	3	4	5
Wanaume wanakubali kushiriki katika shughuli hizi za HBC	1	2	3	4	5
Wanaume wanastahili kuwashughulikia walio na ukimwi.	1	2	3	4	5

3.2.Mtazamo wa wanaume uko kivipi katika kujiusisha kutoa huduma kwa watu walio na ukimwi.

Wakali [ ] asi [ ] mzuri [ ] wanajitolea [ ]

Ni upi mtazamo wa walio na ukimwi kuhusu kushiriki kwa wanaume wanapowashughulikia.

Wakali [ ] asi [ ] mzuri [ ] wanajitolea [ ]

3.4. Ni upi mtazamo wa watu wa familia kuhusu kushiriki kwa wanaumekatika kutua huduma hii kwa walio na ukimwi.

Wakali [ ] asi [ ] mzuri [ ] wanajitolea [ ]

3.5. Ni upi mtazamo wa wanajamii kwa jumla kuhusu kushiriki kwa wanaume katika kutoa huduma hii kwa watu walio na ukimwi.

Wakali [ ] asi [ ] mzuri [ ] wanajitolea [ ]

KITENGO CHA 5: SABABU ZA UTAMADUNI WA KIJAMII

4.1. Kutegemea mizani iliyopo katika jedwali lilipo hapo chini, weka alama ya [X] ili kutoa maoni yako kuhusu jamii yako.

1. Kabisa [ ] 2. Wanakataa [ ] 3. Wanakubali [ ] 4. Wanakubali kabisa [ ] 5. Hawajaamua [ ]

Maoni	Mizani				
Wanaume kuandamana na wake zao kwenye kliniki	1	2	3	4	5
Wanaume wanaoandamana na wake zao kwenye kliniki wanaongozwa nao.	1	2	3	4	5
Ni mwiko wanaume kupika baada ya mkuoa.	1	2	3	4	5
Kupika na Kuteka maji ni kazi ya wanawake na watoto tu.	1	2	3	4	5
Wanaume wanaofanya usafi nyumbani wana udhaifu au wamerogwa.	1	2	3	4	5
Ikiwa mwanamke amepatikana na ukimwi lazima ataliiwe.	1	2	3	4	5
Mwanaume aliye na ukimwi anastahili kuo a mwamamke mwingine wa kumshughulikia.	1	2	3	4	5
Kutoa huduma inamika kuwa kazi ya wanawake	1	2	3	4	5
Wanaume wanaoshiriki katika kutoa huduma wanabaguliwa na wanajamii.	1	2	3	4	5
Wanaume wanaona aibu au kuogopa wanaposhirikishwa na wenye ukimwi wakaki wa kutoa huduma hii.	1	2	3	4	5
Wanaume wanapofanya kazi nyingi za nyumbani ni dalili kuwa wake zao ni wazembe au hawajiwezi.	1	2	3	4	5

Wanaka

4.2.Tajaiani yeyote ambayo ni kikwazo kwa wanaume kujiunga kwa huduma hii.

4.3. Taja shida zingine za utamaduni wa jamii zinazowakabili wanaume wanaposhiriki katika kutoa huduma hii.

4.4. Toa maoni yako kuhusu namna ya kukabiliana na shida za kitamaduni katika kumwezesha mwanaume kushiriki katika kutoa huduma hii.

SHUKRANI KWA KUSHIRIKI

Appendix IX: Key Informant Guide Translated in Kiswahili

KIAMBATISHO CHA 7: KIELELEZO CHA MWAKILISHI MWELEKEZI

Majina yangu ni Ruth Kwamboka Makori. Mimi ni mwanafunzi katika chuo kikuu cha JKUAT ambaye anasomea shahada ya ushamifu (PhD).Ninafanya utafiti kuhusu madhara ya kuwaelimisha wanaume katika kushiriki watu walio na ukimwi.Ningependa tushughulikie mambo yanayouhusiana na kujihusisha kwa wanaume katika kutoa uhuduma zao kwa watu walio na ukimwi.Kwa hivyo ninaommba muwe wazi kushiriki.

1. MAARIFA

a. Ni maswala gani ya huduma hii yanayofahamika na wanaume?

b. Ni akina nani wanaojihusisha na huduma hii kwa watu walio na ukimwi?

c. Wanaume wana maarifa yepi kuhusu huduma hii kwa watu walio na ukimwi?

2. KIWANGO CHA KUSHIRIKI KWA WANAUNE

a. Ni akina nani wanaojihusisha na huduma hii nchini.

b. Ni mambo yepi ya huduma hii yanayofahamika na wanaume humu nchini?

c. Ni njia gani mwafaka ya kuwahusisha wanaume katika huduma hii?

3. MTAZAMO

a. Wanaume wana kauli gani kuhushu huduma hii ya kuwashughulikia watu walio na ukimwi?

4. SABABU ZA UTAMADUNI WA KIJAMII

a. Kuna imani gani katika jamii kuhusu wanaume kujihusisha na huduma hii kwa watu walio na ukimwi?

b. Kuna miiko gani katika jamii kuhusu wanaume wanaojihusisha katika kutoa huduma hii kwa walio na ukimwi.

c. Kuna kanuni gani zinazowakabili wanaume wanaojihusisha na utoaji wa huduma hii katika jamii?

SHUKRANI KWA KUSHIRIKI.

Appendix X: Focused Group Discussion Guide Translated in Kiswahili

KIAMBATISHO CHA 8: KIELELEZO CHA MWAKILISHI MWELEKEZI

Majina yangu ni Ruth Kwamboka Makori. Mimi ni mwanafunzi katika chuo kikuu cha JKUAT ambaye anasomea shahada ya ushamifu (PhD).Ninafanya utafiti kuhusu madhara ya kuwaelimisha wanaume katika kushiriki watu walio na ukimwi.Ningependa tushughulikie mambo yanayouhusiana na kujihusisha kwa wanaume katika kutoa uhuduma zao kwa watu walio na ukimwi.Kwa hivyo ninaommba muwe wazi kushiriki.

1. MAARIFA

a. Ni maswala gani ya huduma hii yanayofahamika na wanaume?

b. Ni akina nani wanaojihusisha na huduma hii kwa watu walio na ukimwi?

c. Wanaume wana maarifa yepi kuhusu huduma hii kwa watu walio na ukimwi?

2. KIWANGO CHA KUSHIRIKI KWA WANAUNE

a. Ni akina nani wanaojihusisha na huduma hii nchini.

b. Ni mambo yepi ya huduma hii yanayofahamika na wanaume humu nchini?

c. Ni njia gani mwafaka ya kuwahusisha wanaume katika huduma hii?

3. MTAZAMO

a. Wanaume wana kauli gani kuhushu huduma hii ya kuwashughulikia watu walio na ukimwi?

4. SABABU ZA UTAMADUNI WA KIJAMII

a. Kuna imani gani katika jamii kuhusu wanaume kujihusisha na huduma hii kwa watu walio na ukimwi?

b. Kuna miiko gani katika jamii kuhusu wanaume wanaojihusisha katika kutoa huduma hii kwa walio na ukimwi.

c. Kuna kanuni gani zinazowakabili wanaume wanaojihusisha na utoaji wa huduma hii katika jamii?

SHUKRANI KWA KUSHIRIKI.

Appendix XI: A Guideline for Training Men on Home-based Care Involvement for People Living with HIV and AIDS.

Introduction

Home-based care is important because it extends the continuum of care from hospital or health facility right into the home. It has benefits for all the players in the care continuum; the HIV –positive person, the family, the community and the health care system. This guideline is designed to guide the training of men to enable them effectively involved in home-based care for people living with HIV/AIDS.

The purpose of the guideline is to develop competencies to perform the specific jobs and tasks of home-based care activities to support home-based care givers and people living with HIV/AIDS. The training assumes that the men will be backed up by the, a local referral network that includes such as services as outpatient and inpatient clinical care, counselling and pastoral care, and community and family members' support. The training requires 7 days of classroom time and 7 days of field practice. Upon satisfactory completion, the community man is certified competent as a home-based care provider.

The guideline assumes that the facilitators are already well endowed with the training skills and work experience. Its primary objective therefore is to provide guidelines to the facilitators. The guideline is based on a training philosophy that emphasizes principles of adult learning. The methodology stresses active participation through group discussion, return demonstrations, brainstorming, role plays, lecturers or individual/group assignments. Learning by doing is emphasized throughout

THE GUIDELINE OUTLINE

The guideline will be arranged in 7 modules which in turn be divided into sessions;

MODULE COMPONENTS

The information for each session will be presented in the following categories;

Objectives

These are the expected out-comes of the training activity. They have been presented as specifically as possible for easy understanding and measurement.

Duration

This is the suggested time that each session should take. Depending on the level of skills trainees already have, the sessions may take a longer or a shorter time.

Content

The main concept and ideas that must be covered are summarized. The sequence of how these concepts and ideas should be presented to the learners is also suggested. This sequence can change depending on the prior knowledge of the trainees.

Learning / Training Activities

A range of activities is suggested, not only because of their suitability for presenting certain information, but also for creating variations to hold the interest of the adult learner. The training activities are spelled out in specific steps so that even relatively inexperienced trainers can follow them easily and know what to do and how to proceed. Some activities require advance preparation by the trainer, for example the preparation of flip chart presentations. The only materials needed for most sessions are newsprints or flip charts, marking pens and pens and paper for trainees. Sessions feature demonstrations of procedures will require the materials and resources.

References

Each module will contain a reference handout for the use of the trainees. Each one also has one or more notes for facilitators. These notes will contain background material on the content. Facilitators need to become familiar with this material before beginning the course.

OVERVIEW OF THE MODULES

Module 1: Introduction to the Course.

This module presents the purpose of the course and relates the course to the work of men. It also affords the opportunity for determining the level of trainees' knowledge of home-based care before training starts. Depending on the setting, the opening sessions may also incorporate exercises that will assist trainees and facilitators to become familiar with one another, share their expectations, and prepare to work as a team.

Module 2: Facts on HIV/AIDS and people living with HIV/AIDS.

This module gives trainees opportunities to review/ recall the facts already know about HIV/AIDS and begin to see how to apply the in Home-based care activities. It also helps trainees confront their own attitudes towards HIV/AIDS and clarify their values.

Module 3: The concept and practice of home-based care and support.

This module introduces trainees to the concept of home-based care. It focuses on the major home-based care skills for people living with HIV/AIDS and the process of applying these skills in real situations. The modules provide for understanding of the theory of home-based care skills as well as hand on demonstration of the skills. It also considers the psychological impact of HIV/AIDS.

Module 4: Nursing Skills in training men to care for people living with HIV/AIDS.

This module equips the trainees with the skills to transfer the nursing care skills to people living with HIV/AIDS. Skills are practices during simulations in micro teaching sessions and feedback is given.

Module 5: General work and nutrition skills in training men to care for people living with HIV/AIDS.

This module equips the trainees with the skills to transfer the general work and nutrition skills provided to people living with HIV/AIDS. Skills are practices during simulations in micro teaching sessions and feedback is given.

Module 6: Overview on Socio-cultural practice influencing men involvement in HBC for people living with HIV/AIDS

This module identifies the socio- cultural practices surrounding men's involved in HBC for people living with HIV/AIDS. Then try to enlighten them and if they influence male involvement should be discouraged. The trainees should be trained on how to overcome the socio-cultural factors that hinder their involvement.

Module 7: Evaluation the course and planning the way forward.

This module gives trainees the opportunity to make plans for applying their skills back home and beginning home-based care services. The module also provides the trainer with a forum for testing the level of knowledge the trainees have gained, and gives trainees the opportunity to offer feedback on the course.

TRAINING METHODOLOGY

A range of training techniques will be used in the guideline, to provide variety and stimulate adult learners. Techniques encompass lecture, group discussion, role plays, group work, practical exercises, community visits and learning assessment.

Lectures/ Lecturettes

Lectures and lecturettes (brief, targeted lectures) will be used in the modules to introduce new information and to review content that trainees may already be familiar with. The modules include a variety of materials for the trainers to use to make lectures as interesting as possible.

Discussion and Brainstorming

It is important to allow time for discussion at appropriate points during or at the conclusion of a lecture. This will provide an opportunity for trainees to ask questions

about information that is unclear to them as well as to make contributions on the basis of their knowledge and experience and develop training synergy.

Group work and feedback (small group discussion/plenary)

Many of the session in the modules involve group, which is usually followed by a session in which feedback on the outcome of the group work is provided to the class as a whole. The groups will be kept as small as possible (preferably not more 6 trainees per group), the aim being to provide an opportunity for trainees to examine a specific issue or problem. It is important to ensure that there is sufficient space for the group to meet without disturbing each. Each group will need a facilitator who will be responsible for keeping the discussion going and ensuring that the group completes its work. In addition, each group will require a reporter who will take notes and provide feedback to the class as a whole. Specific instruction will be provided in the sessions that involve group work.

Role play

These mini dramas give trainees a chance to try to put themselves into another person's circumstances. They are useful for developing empathy and understanding of problems. The trainer suggests a situation and trainees are given roles to play. There is no script. The individuals playing specific roles respond in the way they think they would if they were in the situation in real life. Afterward, both players and observers analyze the drama.

Practical exercises (Demonstration and return demonstrations)

Practical exercises provide an opportunity for trainees to demonstrate their knowledge and skills related to a particular topic. It is important in these situations to provide clear instructions to the trainees about the exercises to be undertaken and to monitor and provide help when required.

Community visits

Community visits are intended to be both instructive and enjoyable experiences for the trainees. The visits are also aimed at helping trainees understand how the concepts in this module apply to the community visits must, however, be planned and organized well in advance, including the choice of appropriate community homes and contacting a key person in the community homes and contacting a key person in the community who is able facilitate and support HBC services.

Learning assessment

Each session closes with a segment focused on assessing how well trainees have understood the material. This is a time for the trainers to take stock of progress and adjust the pace of the training accordingly.

Appendix XII: Additional Statistical Analysis Results

Table 4.18. Reliability test statistics for the questionnaire

Study Constructs	N of Items	Cronbach's Alpha Instrument Pretest, N = 18)	Cronbach's Alpha Main Survey Pretest (N=180)	Cronbach's Alpha Min Survey Posttest (N=180)
Attitude measures	6	.71	.71	.94
Involvement measures	12	.83	.92	.98
Socio-cultural measures	11	.70	.72	.75

Table 4.19. ANCOVA descriptive statistics

Dependent Variable (Posttest)		Mean of Attitude 2		Mean Involvement 2		Mean Socio-Cultural 2	
Group	**N**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**
Control Group	80	1.65	.37	1.74	.30	1.48	.32
Intervention Group	80	3.74	.24	4.09	.19	2.05	.30
Total	**160**	**2.70**	**1.09**	**2.92**	**1.20**	**1.77**	**.42**

Note: SD – Standard deviation

Table 4.20. Levene's test of equality of error variances

Mean Attitude 2 (Posttest)				Mean Involvement 2 (Posttest)				Mean Socio-Cultural 2 (Posttest)			
F	df1	df2	Sig.	F	df1	df2	Sig.	F	df1	df2	Sig.
.01	1	158	1.00	2.69	1	158	.10	2.74	1	158	.10

Table 4.21. Estimated marginal means for attitude, involvement and socio-cultural practices sores

Dependent Variable	Mean Attitude 2 (Posttest)			Mean Involvement 2 (Posttest)			Mean Socio-Cultural 2 (Posttest)		
Group	**Mean**	**SE**	**95% CI**	**Mean**	**SE**	**95% CI**	**Mean**	**SE**	**95% CI**
Control Group	1.63	.03	[1.58, 1.69]	1.74	.03	[1.69, 1.80]	1.48	.03	[1.42, 1.54]
Intervention Group	3.76	.03	[3.71, 3.81]	4.09	.03	[4.04, 4.15]	2.06	.03	[2.00, 2.12]
Covariates Evaluation Values	3.23			3.42			2.61		

Note: SE – Standard Error

Table 4.22. Fisher's least significant difference (LSD) pairwise comparisons post hoc tests

Dependent Variable:		Mean Attitude 2 (Posttest)				Mean Involvement 2 (Posttest)				Mean Socio-Cultural 2 (Posttest)			
(I) Group	**(J) Group**	**MD (I-J)**	**SE**	**Sig.**	**95% CI**	**MD (I-J)**	**SE**	**Sig.**	**95% CI**	**MD (I-J)**	**SE**	**Sig.**	**95% CI**
CG	IG	-2.13*	.04	.00	[-2.21, -2.05]	-2.35	.04	.00	[-2.43, -2.27]	-.58	.05	.00	[-.67, -.49]
IG	CG	2.13*	.04	.00	[2.05, 2.21]	2.35	.04	.00	[2.27, 2.43]	.58	.05	.00	[.49, .67]

Note:

CG – Control Group; CI – Confidence Interval; IG – Intervention Group; MD – Mean Difference; SE – Standard Error

Appendix XIII: Publication on Effect of Training on Men's Knowledge in Home-based Care Practices for People Living with HIV and AIDS in Kisii County.

Title: EFFECTS OF TRAINING ON MEN'S KNOWLEDGE IN HOME-BASED CARE PRACTICES FOR PEOPLE LIVING WITH HIV AND AIDS IN KISII COUNTY, KENYA

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ABSTRACT

An estimated 35.3 million people worldwide were living with HIV at the end of 2013 hence the need for care and support escalated. HIV/AIDS remains a major health and development challenge in Kenya as 5.9% of Kenyans are infected. Home-based care emerged as an effective method of providing cost-effective and compassionate care to those infected and affected with HIV and AIDS. However, there is low male involvement in home-based care services and knowledge among the communities in Kenya remains scanty. The objective of this study was to determine the effects of training on men's knowledge in home-based care practices for people living with HIV and AIDS in Kisii County, Kenya. A longitudinal quasi-experimental design study was done using qualitative and quantitative approaches on pre and post training. The study populations were men in household who were living with people living with HIV/AIDS. The study used Multi stage sampling techniques in selecting the study participants. Sample size of 80 Men was used. Quantitative data was analyzed using SPSS (version 17) computer software and thematic content approach

was used to analyze the qualitative data. The study findings showed few (34.5%) men had formal training in HBC for HIV persons. Overall knowledge improved after training for the intervention group all the variables were high statistically significantly (p=0.000) increased on knowledge. The significant independent variable in the model was the men's educational level 67 (ß = .324, P ≤ 0.001); as man 's educational level increased, so did his home-based care and HIV/AIDS knowledge. There were significant increases of proportion of activities engaged in HBC practices at the post training survey compared to pre- training survey. Men can learn and participate in HBC if more advocacy and training are conducted at communities.

Key words: Home-based Care, Male Involvement, Training, Knowledge, HIV/AIDS, Kisii County, Kenya.

1. INTRODUCTION

1.1 Background

The global HIV pandemic is an unprecedented threat to human health and development. An estimated 36.7 million people worldwide were living with HIV at the end of 2015 hence the need for increase in care and support. Sub-Saharan Africa remains the most heavily affected region in the global HIV epidemic with an estimated 19 million people living with HIV resided, representing 46% of the global HIV burden. HIV and AIDS pandemic remains a major health and development challenge in Kenya. Up to 1.5 million Kenyans were infected by 2015 and an estimated 36 000 people died of AIDS-related causes in 2015, slightly more than one-third the annual numbers who died in 2002–20049 (UNAIDS, 2016). In Kisii County by 2011 there was a prevalence of HIV and AIDS is 8.9 % (NACC, 2011).

People living with HIV/AIDS (PLWHAS) currently need antiretroviral treatment, treatment for opportunistic infections, home-based care, food and nutritional support, general nursing care and emotional support. In most hospitals in Kenya, AIDS patients occupied 60% of the beds (NASCOP, 2005). As public health systems in most developing countries do not have the capacity to provide the necessary care and

support, most people living with HIV and AIDS turned to family, neighbors and friends for care (Campbell and Foulis, 2004).

Home-based care (HBC) emerged as an effective method of providing cost-effective and compassionate care to those infected and affected with HIV and AIDS. HBC is not a replacement for hospital care but instead is part of a comprehensive continuum of prevention, treatment and support services that include family, community and various levels of health care providers (Pathfinder International, 2008). HBC creates community awareness on issues surrounding HIV and AIDS. It creates opportunity to clarify myths, reduce stigma and empower those infected and affected by HIV and AIDS. The Government of Kenya through the Ministry of Health (MoH) has adopted a comprehensive HBC strategy that embraces a team approach to the care of people living with HIV and AIDS (PLWHAs). The comprehensive HBC concept requires a complete mix of health workers- physicians, nurses, pharmacists, counselors, social workers and patients. It is a collaborative partnership of the PLWHAs, the family, the community and the health facility all working together for the well-being and good health of the PLWHAs (NASCOP,2002).

Efforts were started to develop formal support structures for those offering HBC. Most existing efforts to build formal HBC initiatives were still in their infancy, and were still in the 'trial and error' stages of learning. Furthermore, many HBC initiatives appeared quite precarious, functioning from hand to mouth, and with little external support. There are several community based organizations, projects and programs supporting HBC in Kenya. Significant progress has been made in Nyanza province towards developing an integrated model of HBC (Jones, 2006).

When a family member is infected with HIV/AIDS in the house, women and girls provide most of the care to the ill, as expected by society. Globally, up to 90 per cent of such care is provided in the home by women and girls (Akintola, 2004). According to Kenya AIDS NGOs Consortium, (2006) there is low male involvement in HBC activities in Kenya. Therefore, the aim of this study is to determine effects of training men on HBC involvement for PLWHAs.

1.2 Problem Statement

HIV prevalence is increasing at an alarming rate in Kisii County with 8.9% prevalence. Currently, community and home-based care is delivered with low men involvement and high stigma as the key response to the HIV and AIDS pandemic in Kisii County (NACC, 2011).

Traditionally, women have been at the forefront of taking care of the sick within the community including people living with HIV and AIDS. Globally, according to Akintola, (2004) male provides only 10% of such care. Throughout Africa, responsibility for caring for the sick in the home falls to women (WHO, 2002). In Kenya, HIV and AIDS patients primary caregivers are also women with no training in nursing the sick (NASCOP, 2002). As a result, Women and girls are being over burdened with taking care of AIDS patients (Onyango, 2009) and many of them have left work (both formal and informal) and school to provide this care. Most have taken this role in addition to their existing reproductive and productive roles. But as HIV and AIDS take its toll, it is becoming apparent that women alone cannot shoulder the responsibility of HBC, they need their male counterparts to complement their efforts.

Male involvement in HBC has received insufficient attention from researchers, policy-makers and programme designers and it has been a long struggle to have it recognized as a legitimate public health issues. Several studies have been done on factors influencing male involvement in HBC activities for people living with HIV and AIDS in Kenya (Wangui, 2003; Makori *et al.*, 2011, 2012*).* A study done in Zimbabwe found out that men trained in HBC for PLWHAs can be effective HBC caregivers (Hall *et al*., 2006) and a study done in Kenya found that few men are involved and few trained (3%) in HBC (Abuki *et al.*, 2013). However, there have been few documented programs and little research into the effects of training men to increase their involvement. There is need to address the glaring gap of male involvement in HBC efforts to effectively respond to the HIV and AIDS pandemic and relieve women the care burden in Kenya. Therefore, this study aims to determine effects of training men on Home-based care for people living with HIV and AIDS in Kisii County, Kenya.

1.3 Justification of the Study

Poverty levels pose a major challenge in affordability of hospital bills and other expenses such as transport for patients and family members to and from hospital (WHO, 2002). This attracts the need for home-based care which from this perspective would be seen as an affordable means. However, in several areas in Kenya where HBC has so far been introduced, there is gender disparity. Programs targeting increased involvement of men in HBC would help ease women's tasks of HBC.

Prevention and care interventions of HIV and AIDS recognize the importance of male involvement as part of the strategy for implementing sustainable community home-based care (HBC) grassroots interventions. Home-based care is an appropriate patient support approach to care. Indeed, many people prefer to be cared for in their home and communities. In view of the fact that limited research has been done in this area on the effect of training male involvement in HBC, this study will determine effects of training men involvement on HBC activities for PLWHAs and sensitized them thereby improving their practice on the same. The outcome of the study could be useful to home-based care services to improve on male involvement on HBC activities. It would also encourage and augment male involvement in HBC for PLWHAs.

The greater involvement of men in delivering community and home-based care would be a crucial response towards strengthening HBC in the fight against HIV and AIDS, also in reducing the burden on women. Therefore HBC system needs to be strengthened to achieve adequate coverage, as many Kenyan communities have little or no access to care at this level. Furthermore, the quality, effectiveness and sustainability of home-based care services were cause for concern as reported in NASCOP, (2004). If gender inequalities and the burden of community and home-based care are not addressed comprehensively now, women and girls are likely to carry the unsustainable burden of care as the pandemic escalates. In Kenya, this will make it difficult to achieve Sustainable Development Goals, Number 5; achieve gender equality and empower women and girls.

METHODOLOGY

2.1Study Area

This study was carried out in Kisii County located in western part of Kenya on Latitude 0° 41’0 N and Longitude 34° 46’0 E. The County was chosen because of the high alarming HIV prevalence of 8.9% in Kenya compared with National prevalence of 5.9 %.

2.2 Study Design

The study used Longitudinal, Quasi-Experimental Design that adopted both quantitative and qualitative approaches in primary data collection. The study population included men who were living with people living with HIV and AIDS. The study was carried out from January to August, 2015. The study performed a pre-test and posttest for the control and intervention group. A pretest was done in form of a baseline survey, treatment/ intervention was training men and posttest was a final survey after a widow period of three months, using the initial protocol and tools.

2.3 Analysis and presentation

A three stage thematic content approach was used to analyze the qualitative data and Quantitative data was cleaned, coded, entered and analyzed using SPSS (version 17) computer software. Statistical procedures carried out included descriptive and inferential analyses. The results obtained were presented using tables, figures and textual summaries.

2.4 Ethical Review

An ethical approval was obtained from the Ethical Review committee at Kenyatta National Hospital / University of Nairobi and written consent was asked from the respondents. The information was kept confidential.

RESULTS

3.1 Socio-Demographic Characteristics

On analysis of Table 1 is a summary of socio-demographic characteristics of study participants. The results show that majority of the participants (41.5%) were aged between 36-45 years with a mean of 39 years. The majority of the participants were self-employed (70.6%) and more than half (57.2%) earned Kshs.10, 000-20,000. A small proportion of the participants were either employed with salary (9.2%) or not employed at all (9.2%).

The analysis indicated that majority of males of age category 26-46 (96%) years were more willing to engage in HBC programs as opposed to 25 years and below (4%). It also shows that married men (80.99%) and those with a middle income of 1,000-20,000 (89.3%) are likely to participate in HBC practices as opposed to single men (19.01%) and those with higher income more than Kshs. 20,000 (10.7%).

The results in the control and intervention groups, males of age between 26-46 years (96%) were more willing to be involved more in HBC as opposed to 4% of the age between 18-25years. However, there was a significant drop out of males of 36 years and above (< 50%) in intervention sites after training with more males of 26-35 years joining the program (<100%) with the control site slightly recording a very low difference of the same. Furthermore, males with at least a primary to tertiary level of education (97.6%) were more willing to be trained as compared to those without any formal education (2.9%).

Table 1: Demographic Characteristics of Study Participant

Variables	Total %	Control Group Posttest n (%)	Control Group Pretest n (%)	P value	Intervention Group Posttest n (%)	Intervention Group Pretest n (%)	P Value
Age Category							
18-25	4.1	2 (2.8)	4 (5.5)	0.65	3 (6.1)	2 (2.6)	0.704
26-35	20.4	18 (25.4)	18 (24.7)		14 (28.6)	5 (6.5)	
36-45	41.5	24 (33.8)	29 (39.7)		17 (34.7)	42 (54.5)	
> 46	34.1	27 (38)	22 (30.1)		15 (30.6)	28 (36.4)	
Level of Education							
None	2.9	3 (4.2)	2 (2.7)	0.62	1 (2)	2 (2.5)	0.778
Primary	46.4	35 (49.3)	31 (41.9)		21 (42)	40 (50.6)	
Secondary school	42.0	27 (38)	36 (48.6)		22 (44)	30 (38)	
College/University	8.8	6 (8.5)	5 (6.8)		6 (12)	7 (8.9)	
Marital Status							
Married	77.7	58 (81.7)	51 (69.9)	0.26	40 (80)	63 (79.7)	0.636
Single	8.1	3 (4.2)	9 (12.3)		5 (10)	5 (6.3)	
Widow/ Widower	11.7	9 (12.7)	11 (15.1)		3 (6)	9 (11.4)	
Divorced/ Separated	2.6	1 (1.4)	2 (2.7)		2 (4)	2 (2.5)	
Religion Category							
Christian	98.2	70 (98.6)	74(100)	NA	47 (94)	78 (98.7)	NA
Islam	1.1	0.0	0.0		2 (4)	1 (1.3)	
Buddhism	0.7	1 (1.4)	0 (0)		1 (2)	0 (0)	
Main Occupation							
Salary Employment	9.2	10 (14.1)	9 (12.2)	0.978	6 (12)	4(3.2)	0.622
Self-Employment	70.6	48 (67.6)	50 (67.6)		34 (68)	57 (74.7)	
Casual Employment	11.0	9 (12.7)	10 (13.5)		7 (14)	3 (5.2)	
None	9.2	4 (5.6)	5 (6.8)		3 (6)	13 (16.9)	
Level of Income							
< 1,0000	32.6	0 (0)	27 (37.5)	0.600	31 (62)	28 (39.4)	0.097
10,000-20,000	57.2	61 (85.9)	36 (50)		16 (32)	38 (53.5)	
20,000-30,000	8.3	10 (14.1)	6 (8.3)		2 (4)	4 (5.6)	
40,000 and Above	1.9	0 (0)	3 (4.2)		1 (2)	1 (1.4)	

On multiple linear regressions was used to examine the relationship between the post-training total knowledge score (dependent variable) and the men's characteristics (gender, age, education), as the independent variables. The stepwise regression model showed that the overall model was significant ($F = 16.798$, $P \leq$

0.001). The significant independent variable in the model was the men's educational level 67 (ß = .324, P ≤ 0.001); as man's educational level increased, so did his home-based care and HIV/AIDS knowledge.

3.2 Men's Knowledge on Home-based Care for PLWHIAS

From the total population of pretest survey 87((51.8%) men were aware of home-based care for people living with HIV and AIDS. Although, majority of men were not formally trained and only few 52(34.5%) men recruited for the study had formal training. Also in responses from an in-depth interview with a staff at Patient Support Centre clinics urged, "*I normally see the hospital and NGO' staff being taken for formal training, in our department it is only the supervisor who goes". Our supervisor thinks calling for a meeting once a month for 30 minutes is part of training to the HIV clients who are majority women and a few men so the information given is not enough to men*". He added, "*The training is normally taken to be too casual"*. It came out that not all the people are formally trained on Home-based care but selectively. There was a feel that home-based care knowledge and Skills were not given on formal training to clients even the care givers.

Almost half 65(42.65%) of men had specific skills on HBC activities for HIV/AIDS and most of them were on general work with less Nursing skills. Also more than half 81(54.5%) were aware of male involvement in home-based care for people living with HIV/AIDS. In FGDs one men said, *"Most of the skills of doing work at home and taking care of the sick person is well done by women and they have been do it all the time. A man can do general work at the homestead or provide with money if you have".* This shows that most of the men believe the skills of taking care of patient are mostly with and the work should be done by women.

In the table 2 the knowledge variables at the intervention group showed that there was a highly significant increase of the awareness of HBC for people living with HIV and AIDS (58.2% verse 96%, p=0.000), have HBC training for HIV/AIDs (32.1% verse 98%, P=0.000), have skills for HBC for HV/AIDs (45.6% verse 93.9%, P=0.000) an aware of male involvement in HBC for HIV/AIDs (52.6% verse 95.9%, P=0.000).

Table 2: Comparison on Knowledge Variables

	Control			Intervention		
	Endline n (%)	**Baseline n (%)**	**P-Value**	**Endline n (%)**	**Baseline n (%)**	**P-Value**
Awareness of HBC for PLW HA						
Yes	56(78.9)	41(55.)	0.003	72(96.0)	46(58.2)	0.000
No	15(21.1)	33(44.)		2(4.0)	33(41.8)	
Have HBC training for PLWHA						
Yes	39(54.9)	27(37.)	0.032	48(98.0)	25(32.1)	0.000
No	32(45.1)	46(63.)		1(2.0)	53(67.9)	
Have skills for HBC						
Yes	36(50.7)	29(39.)	0.187	46(93.9)	36(45.6)	0.000
No	35(49.3)	44(60.)		3(6.1)	43(54.4)	
Aware of Male involvement in HBC						
Yes	47(64.4)	40(56.)	0.324	74(95.9)	41(52.6)	0.000
No	31(43.7)	26(35.)		2(4.1)	37(47.4)	

In a Key Informant interview with a church pastor said, *"Many men have received the information through the training given on how men involvement in home-based care for people living with HIV/AIDS. They are even sharing the information openly among the members in church than before".* These confirmed that the men that were trained gained knowledge on the home-based care and HIV/AIDS and were share it in church hence, gaining popularity in the community.

Also from FGD discussion a man expressed out, "*I have learned a lot of things I never knew before from nutrition, counselling nursing care and general knowledge on home-based care and HIV/AIDs. God bless you for giving us the training".* This shows that men after the training were appreciating of gaining knowledge on the areas they trained.

3.2.1 Men's Awareness on HBC Activities

Figure 1 shows the result of participants' knowledge on what HBC activities they were aware of results reveal that 44.27% of the men were aware of HIV counselling, drug adherence and nutrition program, 34% were aware of care caregiving and nursing including referral. About 3.8% were aware that there are persons living positive and taking drugs. The findings show that there was lack most of the knowledge attributes on home-based care activities for people living with HIV/AIDS among men.

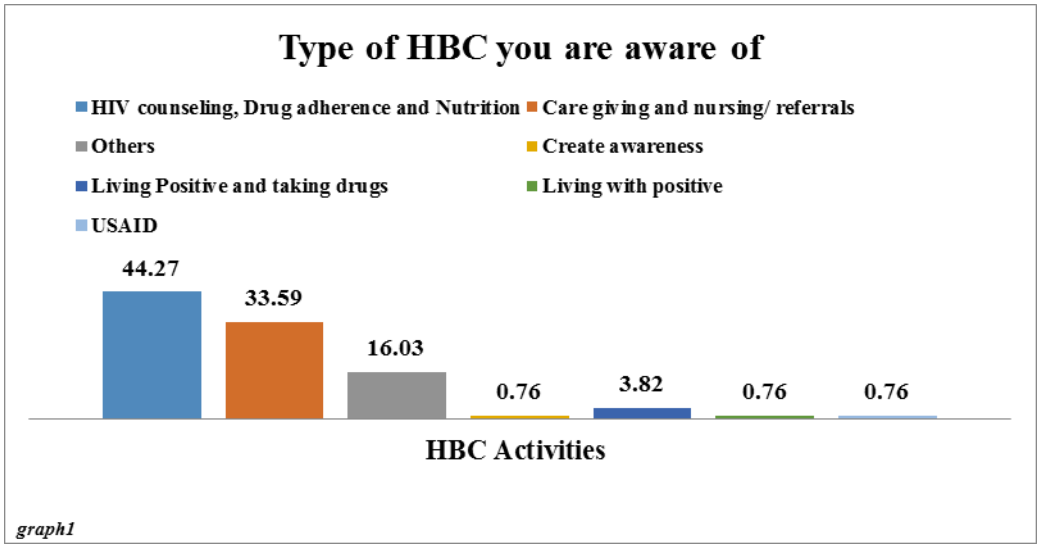

Figure 1: Awareness on Types of HBC

3.2.2 Men's Skills on HBC activities

In Figure 2, the results show that among the participants interviewed who had skills, majority (79.3%) acknowledged drug adherence, counselling and nutrition, while (10.3%) acknowledged care giving, nursing and referrals, drug addiction and prevention, spiritual counselling and training on PMCT, VCT and STI had the equal number of participants that is 3.4% responding to this. This finding also implies that there few skills that men possess and don't have other essential HBC skills components to encourage fully male involvement.

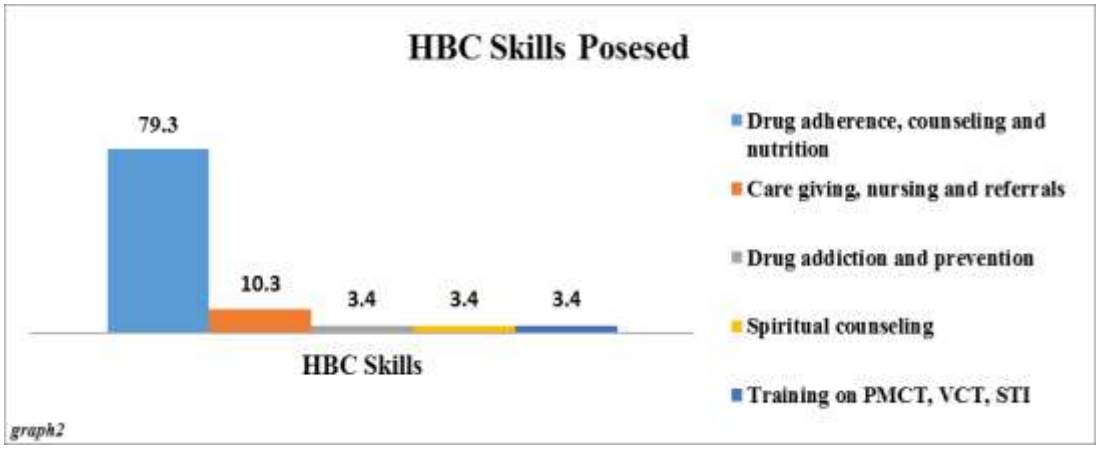

Figure 2: HBC Skills Possessed

3.2.3Training Areas to Encourage Male Involvement in HBC.

In Figure 3, the results show that to encourage male involvement in HBC activities, most participants (51.4%) suggested that men should be trained on drug adherence, counselling and nutrition, 25.7% suggested that they should be encouraged to improve skills in HBC while 5.7% said that men should be trained on courage. Other training included stigma reduction, family planning, use of condoms among others having 2.4% turn out. It shows that the very many ways that can be used on encouraging men involvement in HBC for HIV but specifically training them on all the HBC activities and other moral supportive factors.

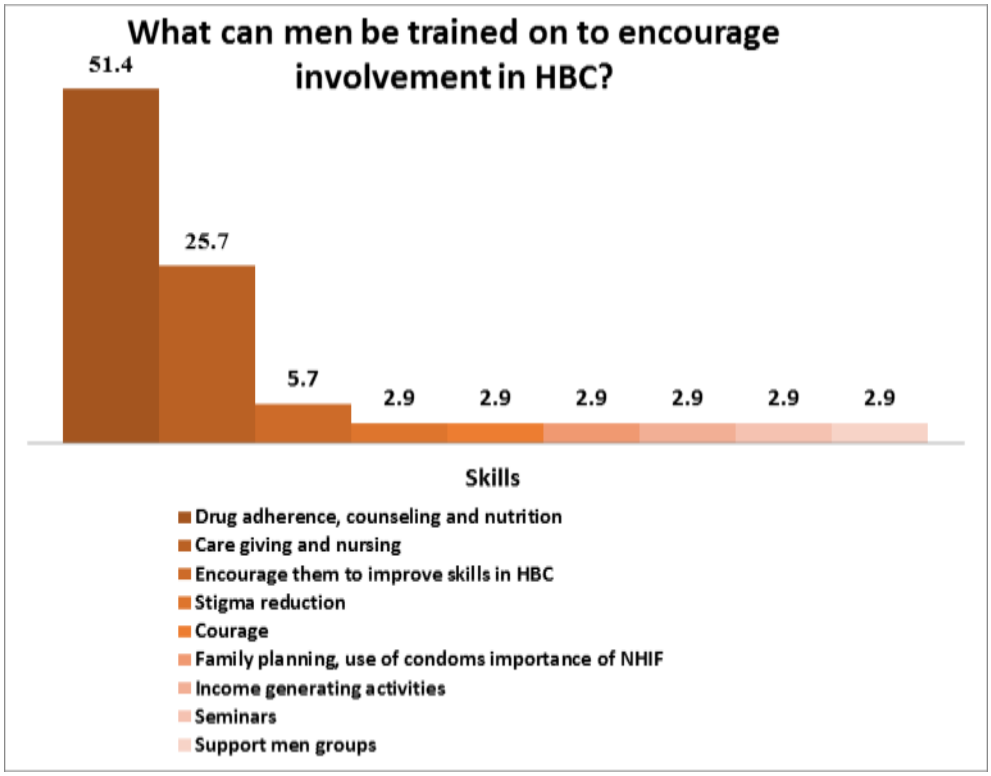

Figure 3: Areas of Training Men in HBC

4 DISCUSSION

Gender disparity in terms of roles and little knowledge on the HBC activities for people living with HIV/ AIDS was observed to exist in the study population at the baseline survey but improved after training at posttest survey. However, they were aware of existing HBC for HIV in the community. These findings therefore, showed a positive correspondence in line with other studies. The result concurred with a study done in Kenya revealed that the majority of the respondents were aware of the existence of HBC of HIV and AIDS (Wesonga, 2015).

The findings showed that there was few of the knowledge attributes on home-based care activities for people living with HIV/AIDS among men. It agreed with other studies done in Zimbabwe and Tanzania which found out that lack or no access to HBC knowledge was attributed to be among the factors hindering men to be involved in HBC this where on Knowledge of HBC practices. An inadequate HBC skill among the males in the research population which was also a major factor

incapacitating them towards effective delivery of HBC services. This is evidently concurred with other studies whereby, men voluntary caregivers were reported to experience difficulties in providing nursing skills (Hall *et al*., 2006; Malale, 2011). Also it agreed with a study done in South Africa that found out a positive association between knowledge and total score on level of male involvement in PMTCT suggesting that an increase in knowledge and awareness about PMTCT may have a positive influence on men's involvement in PMTCT (Tshibumbu, 2006).

However, in control group indicated a slight retention of males involved in HBC as compared to intervention group which indicates that males' involvement in HBC is an element which goes beyond training and is associated with other factors such as mobilization and awareness which agrees with a study done by Bacon *et al*., (2002) found that mobilization of care givers was a successful strategy towards scaling up of HBC. It also reported low interest of males in HBC as a factor attributed to scarcity of knowledge and skills.

There was little training among men in both groups and therefore it agreed with another study done in Kenya that found the reason for few men being in HBC was lack of knowledge and skills, and only few of men have been trained on HBC services (Abuki *et al.*, 2013). Similarly, it concurred with another study done in Kenya that majority of caregivers were not formal trained in HBC (Makori *et al*., 2011). If trained many were casual training that are conducted at the clinic when attending routine Patient Support Centre clinics and collecting drugs.

In this study after training for the intervention group all the variables were high statistically significant increased on knowledge variables of men. It concurred with a VSO RAISA study of male involvement in CHBC done in Malawi, Zambia and Zimbabwe documented the positive outcomes: increased knowledge and openness about HIV and AIDS and gender among men, reduced stigma and discrimination of PLWHA by men, a reduced burden of care on women and girls, improved coverage and quality of CHBC (Campbell and Macmillan, 2012).Therefore the result from the study showed that training to be ways for men to acquire knowledge on all HBC activities for HIV Patients men involvement and others indicated motivational

factors such as income generating activities and forming support groups of men only were vital elements that would increase interest and retention of males in HBC service delivery programs. It also agreed with others studies that indicated similar factors to encourage male involvement in HBC programs (John Snow International and South Africa AIDs Information Dissemination services, 2005).

5 CONCLUSIONS

The burden of caring for those who are HIV-infected and affected consisted not only of caring for those who were chronically ill, but that it extended to the care they gave to the whole family, including orphaned and vulnerable children. This study demonstrated the importance of conducting empirically based investigation to provide support to the debate on effects of training men on home-based care for people living with HIV and AIDS. There was overall knowledge improved after training for the intervention group all the variables were high statistically significantly increased on men's knowledge on HBC for people living with HIV/AIDS and there was a significant increase of proportion of activities engaged in HBC practices at the post training survey compared to pre- training survey. Men can learn and participate in HBC if more advocacy ant training are conducted at communities.

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Appendix XIV: Publication on Effect of Training Men's Attitude towards Home-based Care Practices for People Living with HIV and AIDS in Kisii County.

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Title: EFFECTS OF TRAINING ON MEN'S ATTITUDE TOWARDS HOME-BASED CARE PRACTICES FOR PEOPLE LIVING WITH HIV AND AIDS IN KISII COUNTY, KENYA

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ABSTRACT

An estimated 35.3 million people worldwide were living with HIV at the end of 2013 hence the need for care and support escalated. HIV/AIDS remains a major health and development challenge in Kenya as 5.9% of Kenyans are infected. Home-based care emerged as an effective method of providing cost-effective and compassionate care to those infected and affected with HIV and AIDS. However, there is low male involvement in home-based care services and knowledge among the communities in Kenya remains scanty. The objective of this study was to determine the effects of training on men's knowledge in home-based care practices for people living with HIV and AIDS in Kisii County, Kenya. A longitudinal quasi-experimental design study was done using qualitative and quantitative approaches on pre and post training. The study populations were men in household who were living with people living with HIV/AIDS. The study used Multi stage sampling techniques in selecting the study participants. Sample size of 80 Men was used. Quantitative data was analyzed using SPSS (version 17) computer software and thematic content approach was used to analyze the qualitative data. The study findings shows the training intervention had a significant effect on the attitude of men being involved in the study (0.439; 95% CI=0.20-0.96), p=0.010) and agreed that males should be involved in HBC activities (41.7% pretest verses 69.3% posttest, p=0.05). Men can learn and change attitude to participate in HBC if more advocacy and training are conducted at communities. The study recommends policies and planning intervention strategies in implementing and encouraging men involvement in home-based care programme and at homes in Kenya.

Key words: Home-based Care, Male Involvement, Training, Knowledge, HIV/AIDS, Kisii County, Kenya.

1 INTRODUCTION

1.1 Background

The global HIV pandemic is an unprecedented threat to human health and development. An estimated 36.7 million people worldwide were living with HIV at the end of 2015 hence the need for increase in care and support. Sub-Saharan Africa remains the most heavily affected region in the global HIV epidemic with an estimated 19 million people living with HIV resided, representing 46% of the global HIV burden. HIV and AIDS pandemic remains a major health and development challenge in Kenya. Up to 1.5 million Kenyans were infected by 2015 and an estimated 36 000 people died of AIDS-related causes in 2015, slightly more than one-third the annual numbers who died in 2002–20049 (UNAIDS, 2016). In Kisii County by 2011 there was a prevalence of HIV and AIDS is 8.9 % (NACC, 2011).

People living with HIV/AIDS (PLWHAS) currently need antiretroviral treatment, treatment for opportunistic infections, home-based care, food and nutritional support, general nursing care and emotional support. In most hospitals in Kenya, AIDS patients occupied 60% of the beds (NASCOP, 2005). As public health systems in most developing countries do not have the capacity to provide the necessary care and support, most people living with HIV and AIDS turned to family, neighbors and friends for care (Campbell and Foulis, 2004).

Home-based care (HBC) emerged as an effective method of providing cost-effective and compassionate care to those infected and affected with HIV and AIDS. HBC is not a replacement for hospital care but instead is part of a comprehensive continuum of prevention, treatment and support services that include family, community and various levels of health care providers (Pathfinder International, 2008). HBC creates community awareness on issues surrounding HIV and AIDS. It creates opportunity to clarify myths, reduce stigma and empower those infected and affected by HIV and AIDS. The Government of Kenya through the Ministry of Health (MoH) has adopted a comprehensive HBC strategy that embraces a team approach to the care of people living with HIV and AIDS (PLWHAs). The comprehensive HBC concept requires a complete mix of health workers- physicians, nurses, pharmacists, counselors, social

workers and patients. It is a collaborative partnership of the PLWHAs, the family, the community and the health facility all working together for the well-being and good health of the PLWHAs (NASCOP,2002).

Efforts were started to develop formal support structures for those offering HBC. Most existing efforts to build formal HBC initiatives were still in their infancy, and were still in the 'trial and error' stages of learning. Furthermore, many HBC initiatives appeared quite precarious, functioning from hand to mouth, and with little external support. There are several community based organizations, projects and programs supporting HBC in Kenya. Significant progress has been made in Nyanza province towards developing an integrated model of HBC (Jones, 2006).

When a family member is infected with HIV/AIDS in the house, women and girls provide most of the care to the ill, as expected by society. Globally, up to 90 per cent of such care is provided in the home by women and girls (Akintola, 2004). According to Kenya AIDS NGOs Consortium, (2006) there is low male involvement in HBC activities in Kenya. Therefore, the aim of this study is to determine effects of training men on HBC involvement for PLWHAs.

1.2 Problem Statement

HIV prevalence is increasing at an alarming rate in Kisii County with 8.9% prevalence. Currently, community and home-based care is delivered with low men involvement and high stigma as the key response to the HIV and AIDS pandemic in Kisii County (NACC, 2011).

Traditionally, women have been at the forefront of taking care of the sick within the community including people living with HIV and AIDS. Globally, according to Akintola, (2004) male provides only 10% of such care. Throughout Africa, responsibility for caring for the sick in the home falls to women (WHO, 2002). In Kenya, HIV and AIDS patients' primary caregivers are also women with no training in nursing the sick (NASCOP, 2002). As a result, Women and girls are being over burdened with taking care of AIDS patients (Onyango, 2009) and many of them have left work (both formal and informal) and school to provide this care. Most have taken

this role in addition to their existing reproductive and productive roles. But as HIV and AIDS take its toll, it is becoming apparent that women alone cannot shoulder the responsibility of HBC, they need their male counterparts to complement their efforts.

Male involvement in HBC has received insufficient attention from researchers, policy-makers and programme designers and it has been a long struggle to have it recognized as a legitimate public health issues. Several studies have been done on factors influencing male involvement in HBC activities for people living with HIV and AIDS in Kenya (Wangui, 2003; Makori *et al.*, 2011*).* A study done in Zimbabwe found out that men trained in HBC for PLWHAs can be effective HBC caregivers (Hall *et al*., 2006) and a study done in Kenya found that few men are involved and few trained (3%) in HBC (Abuki *et al.,* 2013). However, there have been few documented programs and little research into the effects of training men to increase their involvement. There is need to address the glaring gap of male involvement in HBC efforts to effectively respond to the HIV and AIDS pandemic and relieve women the care burden in Kenya. Therefore, this study aims to determine effects of training men on Home-based care for people living with HIV and AIDS in Kisii County, Kenya.

1.3 Justification of the Study

Poverty levels pose a major challenge in affordability of hospital bills and other expenses such as transport for patients and family members to and from hospital (WHO, 2002). This attracts the need for home-based care which from this perspective would be seen as an affordable means. However, in several areas in Kenya where HBC has so far been introduced, there is gender disparity. Programs targeting increased involvement of men in HBC would help ease women's tasks of HBC.

Prevention and care interventions of HIV and AIDS recognize the importance of male involvement as part of the strategy for implementing sustainable community home-based care (HBC) grassroots interventions. Home-based care is an appropriate patient support approach to care. Indeed, many people prefer to be cared for in their home and communities. In view of the fact that limited research has been done in this

area on the effect of training male involvement in HBC, this study will determine effects of training men involvement on HBC activities for PLWHAs and sensitized them thereby improving their practice on the same. The outcome of the study could be useful to home-based care services to improve on male involvement on HBC activities. It would also encourage and augment male involvement in HBC for PLWHAs.

The greater involvement of men in delivering community and home-based care would be a crucial response towards strengthening HBC in the fight against HIV and AIDS, also in reducing the burden on women. Therefore, HBC system needs to be strengthened to achieve adequate coverage, as many Kenyan communities have little or no access to care at this level. Furthermore, the quality, effectiveness and sustainability of home-based care services were cause for concern as reported in NASCOP, (2004). If gender inequalities and the burden of community and home-based care are not addressed comprehensively now, women and girls are likely to carry the unsustainable burden of care as the pandemic escalates. In Kenya, this will make it difficult to achieve Sustainable Development Goals, Number 5; achieve gender equality and empower women and girls (United Nations, 2017).

2 METHODOLOGY

2.1Study Area

This study was carried out in Kisii County located in western part of Kenya on Latitude 0° 41’0 N and Longitude 34° 46’0 E. The County was chosen because of the high alarming HIV prevalence of 8.9% in Kenya compared with National prevalence of 5.9 %.

2.2 Study Design

The study used Longitudinal, Quasi-Experimental Design that adopted both quantitative and qualitative approaches in primary data collection. The study population included men who were living with people living with HIV and AIDS. The study was carried out from January to August, 2015. The study performed a pre-

test and posttest for the control and intervention group. A pretest was done in form of a baseline survey, treatment/ intervention was training men and posttest was a final survey after a widow period of three months, using the initial protocol and tools.

2.3 Analysis and presentation

A three stage thematic content approach was used to analyze the qualitative data and Quantitative data was cleaned, coded, entered and analyzed using SPSS (version 17) computer software. Statistical procedures carried out included descriptive and inferential analyses. The results obtained were presented using tables, figures and textual summaries.

2.4 Ethical Review

An ethical approval was obtained from the Ethical Review committee at Kenyatta National Hospital / University of Nairobi and written consent was asked from the respondents. The information was kept confidential.

3 RESULTS

3.1 Socio-Demographic Characteristics

On analysis of Table 1 is a summary of socio-demographic characteristics of study participants. The results show that majority of the participants (41.5%) were aged between 36-45 years with a mean of 39 years. The majority of the participants were self-employed (70.6%) and more than half (57.2%) earned Kshs.10, 000-20,000. A small proportion of the participants were either employed with salary (9.2%) or not employed at all (9.2%).

The analysis indicated that majority of males of age category 26-46 (96%) years were more willing to engage in HBC programs as opposed to 25 years and below (4%). It also shows that married men (80.99%) and those with a middle income of 1,000-20,000 (89.3%) are likely to participate in HBC practices as opposed to single men (19.01%) and those with higher income more than Kshs. 20,000 (10.7%).

The results in the control and intervention groups, males of age between 26-46 years

Table 3: Demographic Characteristics of Study Participant

On multiple linear regressions was used to examine the relationship between the post-training total knowledge score (dependent variable) and the men's characteristics (gender, age, education), as the independent variables. The stepwise regression model showed that the overall model was significant (F = 16.798, P ≤

Variables	Total %	Control Group Posttest n (%)	Pretest n (%)	P value	Intervention Group Posttest n (%)	Pretest n (%)	P Value
Age Category							
18-25	4.1	2 (2.8)	4 (5.5)	0.65	3 (6.1)	2 (2.6)	0.704
26-35	20.4	18 (25.4)	18 (24.7)		14 (28.6)	5 (6.5)	
36-45	41.5	24 (33.8)	29 (39.7)		17 (34.7)	42 (54.5)	
> 46	34.1	27 (38)	22 (30.1)		15 (30.6)	28 (36.4)	
Level of Education							
None	2.9	3 (4.2)	2 (2.7)	0.62	1 (2)	2 (2.5)	0.778
Primary	46.4	35 (49.3)	31 (41.9)		21 (42)	40 (50.6)	
Secondary school	42.0	27 (38)	36 (48.6)		22 (44)	30 (38)	
College/University	8.8	6 (8.5)	5 (6.8)		6 (12)	7 (8.9)	
Marital Status							
Married	77.7	58 (81.7)	51 (69.9)	0.26	40 (80)	63 (79.7)	0.636
Single	8.1	3 (4.2)	9 (12.3)		5 (10)	5 (6.3)	
Widow/ Widower	11.7	9 (12.7)	11 (15.1)		3 (6)	9 (11.4)	
Divorced/ Separated	2.6	1 (1.4)	2 (2.7)		2 (4)	2 (2.5)	
Religion Category							
Christian	98.2	70 (98.6)	74(100)	NA	47 (94)	78 (98.7)	NA
Islam	1.1	0.0	0.0		2 (4)	1 (1.3)	
Buddhism	0.7	1 (1.4)	0 (0)		1 (2)	0 (0)	
Main Occupation							
Salary Employment	9.2	10 (14.1)	9 (12.2)	0.978	6 (12)	4(3.2)	0.622
Self-Employment	70.6	48 (67.6)	50 (67.6)		34 (68)	57 (74.7)	
Casual Employment	11.0	9 (12.7)	10 (13.5)		7 (14)	3 (5.2)	
None	9.2	4 (5.6)	5 (6.8)		3 (6)	13 (16.9)	
Level of Income							
< 1,0000	32.6	0 (0)	27 (37.5)	0.600	31 (62)	28 (39.4)	0.097
10,000-20,000	57.2	61 (85.9)	36 (50)		16 (32)	38 (53.5)	
20,000-30,000	8.3	10 (14.1)	6 (8.3)		2 (4)	4 (5.6)	
40,000 and Above	1.9	0 (0)	3 (4.2)		1 (2)	1 (1.4)	

0.001). The significant independent variable in the model was the men's educational level 67 (ß = .324, P ≤ 0.001); as man 's educational level increased, so did his home-based care and HIV/AIDS knowledge.

3.2 Men's Attitude on Home-based Care Involvement for PLWHAs

Men's attitude influence towards home-based care involvement for people living with HIV and AIDS among the participants was assessed using various variables.

Table 2: Men's Attitude on Home-based Care Involvement for PLWHAs

	Control Endline n (%)	Baseline n (%)	P values	Intervention Endline n (%)	Baseline n (%)	P values	
Male patients attended by male care givers only							
Disagree	33(68.8)	56(72.7)	0.633	60 (84.5)	48 (65.8)	0.011	
Agree	11 (15.5)	25 (34.2)		15 (31.3)	21 (27.3)		
HBC is meant for girls and women only							
Disagree	58 (81.7)	52 (73.2)	0.230	52 (69.3)	20(41.7)	0.05	
Agree	13 (18.3)	19 (26.8)		23 (30.7)	28(58.3)		
HBC have done very little to involve men							
Disagree	37 (52.1)	27 (38)	0.093	23 (47.9)	35 (46.7)	0.892	
Agree	34 (47.9)	44 (62)		25 (52.1)	40 (53.3)		
Male volunteers can attend HBC if invited by health workers							
Disagree	20 (28.2)	15 (20.8)		15 (30.6)	22 (28.9)		0.842
Agree	51 (71.8)	57 (79.2)	0.309	34 (69.4)	54 (71.1)		
Men are willing to be involved in HBC activities							
Disagree	23 (32.4)	17 (23.3)	0.224	8 (16.7)	15 (19.7)	0.05	
Agree	48 (67.6)	56 (76.7)		40 (83.3)	61 (80.3)		
Men should be involved in HBC							
Disagree	9(18.4)	24(31.6)	0.106	24 (33.8)	13 (18.3)	0.038	
Agree	40(18.6)	52(68.4)		47 (66.2)	58 (81.7)		

Majority of the participants disagreed with the fact that male patients should be attended to by male care givers only (65.8% pretest verses 84.5% at posttest, p=0.011) and that HBC is meant for girls and women only 18.3% verse 33.8%, p=0.038) but agreed that males should be involved in HBC activities (41.7% pretest verses 69.3% posttests, p=0.05). In both cases there was a significant increase in proportions in the intervention group. In total it appeared that there was improved reported attitude in the intervention group, showing 100 points in the pre-test and 106 in the post-test though not statistically significant.

Table 3: Multivariate Logistic Regression Analysis to Determine Effect of the Training on Men's Attitudes in HBC involvement

ATTITUDE	Intervention effect OR (95% CI)	P values
Male patients should be attended to by male care givers only	0.35(0.16-0.79)	0.032
HBC is meant for girls and women only	0.61(0.28-1.36)	0.027
HBC have done very little to involve men	0.56(0.29-1.10)	0.299
Male volunteers can attend HBC if invited by health workers	0.67(0.31-1.45)	0.569
Men are willing to be involved in HBC activities	0.63(0.30-1.32)	0.278
Men should be involved in HBC	0.439(0.20-0.96)	0.010

On multivariate logistic regression analysis result in Table 3 shows that the training Intervention had a significant effect on the odds on attitude of men being involved in HBC (0.439; 95% CI=0.20-0.96), p=0.010). The effect of the intervention resulted in 65% reduction in proportion of those who think that male patients attended to by male care givers only. (OR=0.35; 95% CI= (0.16-0.79), p=0.032.

Table 4: Comparison on Opinions towards Male Involvement in HBC

RATING	Control				P	Intervention				P
	Endline	n	Baseline	n	values	Endline	n	Baseline n (%)		values

	(%)	(%)		(%)		
Attitude of men						
Negative	43 (60.6)	45 (60.8)	0.976	18 (37.5)	40 (51.9)	0.05
Positive	28 (39.4)	29 (39.2)		30 (62.5)	37 (48.1)	
Attitude of PLWA						
Negative	26 (36.6)	41 (55.4)	0.067	16 (32.7)	38 (49.4)	0.024
Positive	45 (63.4)	33 (44.6)		33 (67.3)	39 (50.6)	
Attitude of family members						
Negative	31 (43.7)	46 (63.9)	0.016	17 (34.7)	43 (55.8)	0.022
Positive	40 (56.3)	26 (36.1)		32 (65.3)	34 (44.2)	
Attitude of society						
Negative	40 (57.1)	48 (65.8)	0.291	17 (34.7)	44(57.9)	0.012
Positive	30 (42.9)	25 (34.2)		32 (65.3)	32 (42.1)	

Men's attitude influence towards home-based care involvement for people living with HIV and AIDS among the participants was assessed using various variables. Majority of the participants disagreed with the fact that male patients should be attended to by male care givers only (65.8% pretest verses 84.5% at posttest, p=0.011) and that HBC is meant for girls and women only 18.3% verse 33.8%, p=0.038) but agreed that males should be involved in HBC activities (41.7% pretest verses 69.3% posttest , p=0.05). In both cases there was a significant increase in proportions in the intervention group. In total it appeared that there was improved reported attitude in the intervention group, showing 100 points in the pre-test and 106 in the post-test though not statistically significant.

4 DISCUSSION

Gender disparity in terms of roles and negative attitudes on the HBC activities for people living with HIV/ AIDS was observed to exist in the study population at the baseline survey but improved after training at posttest survey. The result concurred

with other studies by Kavuma *et al.,* (2004), Kenya AIDS NGOs Consortium (2006) and Onyango (2009), which mentioned low male involvement in the HBC interventions being reported by health workers and services providers both at institutional and community grassroots levels. Further review of literature indicates that males did not volunteer to became caregivers often they had no choice because the females were not available (Kipp *et al*., 2007). However, they were aware of existing HBC for HIV in the community. These findings therefore, showed a positive correspondence in line with other studies. The result concurred with a study done in Kenya revealed that the majority of the respondents were aware of the existence of HBC of HIV and AIDS (Wesonga, 2015).

This study results showed that majority of the participants were aged between 36-45 years which is a middle aged group and a reproductive age group. This study concurred with other study that HIV/AIDS mainly affect the population between 15 to 45 years due to HIV pandemic affecting this age group (Kipp *et al*., 2006). Furthermore, males with at least a primary to tertiary level of education were more willing to be trained as compared to those without any formal education. It concurred with a study done by Tshibumbu, (2006) that found out a positive association between knowledge and total score on level of male involvement in PMTCT suggesting that an increase in knowledge and awareness about PMTCT may have a Positive Influence on men's involvement in PMTCT.

However, in control group indicated a slight retention of males involved in HBC as compared to intervention group which indicates that males involvement in HBC is an element which goes beyond training and is associated with other factors such us mobilization and awareness which agrees with a study done by Bacon *et al.,* (2002), found that mobilization of care givers was a successful strategy towards scaling up of HBC. It also reported low interest of males in HBC as a factor attributed to scarcity of knowledge and skills.

Some research shows that, HBC services are seen as domestic and hence considered as the role of the females as part of their responsibilities as the care providers in the families. Males on the other hand are perceived to be the family breadwinners hence,

less to be associated with these roles which includes skills in provision of home-based care and support, such as cooking, washing clothes, childcare, and treating and washing insecticide-treated nets for malaria prevention which are chores culturally meant for women (WHO, 2002). But studies show that if they are put into consideration, men are more likely to listen to, accept, discuss and share issues related to HIV/AIDs including care and support, with other men rather than with women as affirmed by Hall *et al*., (2006).

The study results, are in disagreement with these beliefs with an assessment on men's attitude towards home-based care involvement for people living with HIV and AIDS among the participants showing that most of them disagreed with the fact that male patients should be attended to by male care givers only and that males should not be involved in HBC activities. However, it agrees with study done in Zimbabwe reported that many male caregivers have encountered various forms of resistance to their work although attitudes appear to be slowly changing, which is a positive result of the program but also an ongoing challenge (Roper, 2009).

Men are willing to play a practical role in promoting the health of their families, neighbours and communities hence can be influential in the society if trained as also reported by Hall *et al*., (2006) in their study on the impact of male involvement on the quality of HBC. Studies by Peacock (2003) also show an improved clients mental and physical health conducted by 2000 voluntaries that were men and their effectiveness as potential HBC caregivers. This strongly implies that, training and creating awareness on the importance of their involvement can play a positive impact towards improving men's attitude and participation in HBC issues.

5 CONCLUSIONS

The burden of caring for those who are HIV-infected and affected consisted not only of caring for those who were chronically ill, but that it extended to the care they gave to the whole family, including orphaned and vulnerable children. This study demonstrated the importance of conducting empirically based investigation to provide support to the debate on effects of training men on home-based care for

people living with HIV and AIDS. There was overall knowledge improved after training for the intervention group all the variables were high statistically significantly increased on men's knowledge on HBC for people living with HIV/AIDS and there was a significant increase of proportion of activities engaged in HBC practices at the post training survey compared to pre- training survey. Men can learn and participate in HBC if more advocacy ant training are conducted at communities.

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